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# Mindfulness in Schools: Promoting Social and Emotional Learning in the Classroom

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# Mindfulness in Schools: Promoting Social and Emotional Learning in the Classroom

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Mindfulness in Schools: Promoting Social and Emotional Learning in the Classroom

A Senior Honors Thesis

Submitted in Partial Fulfillment of the Requirements  
for Graduation in the Honors College

By  
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*Educational use of the paper is permitted for the purpose of providing future students a model example of an honors senior thesis project.*

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## **Abstract**

Currently in schools there is a gap in social and emotional learning, even with an increased emphasis on character development in K-12 schools. There is a growing consensus that students should be taught more than just content in the classroom. Schools should develop well-rounded students capable of handling anything life throws at them. But as mental health issues, conduct problems and increased stress levels are on the rise, schools are currently missing the mark when it comes to their students. Mindfulness, the conscious awareness of the present moment and how you and the world around you fit into that moment, is the key to bridging this gap. Mindfulness has several applications in the medical and clinical fields and is now making its way into the educational field. Implementation of a mindfulness program will teach students how to control their emotions, and attention while building an identity and resilience. This thesis will review sources about mindfulness and its applications and use this research to argue that mindfulness should be added to the K-12 curriculum and will improve students overall wellness and ability to function in school and in life.

## Chapter 1: Introduction

Over the last few decades, research on mindfulness has developed to great depths. A simple definition of mindfulness is the practice of uninterrupted, non-judgmental conscious awareness of the present moment (Burke & Hawkins, 2012, p.37; Kabat-Zinn, 2003).

Mindfulness draws from the ancient Buddhist practices of meditation, but can be seen today as an overall wellness technique used to help foster a happier, less stressful life (Burke, 2010).

Meditation, one of the three dimensions of the Eightfold Path to enlightenment, is a fundamental teaching of Buddhism. Viewed as the high road to enlightenment, the ultimate goal in Buddhism, the practice of meditation can make oneself into what one wishes to be (Keown, 1996). Meditation, like mindfulness, can be described as an “altered state of consciousness” (Keown, 1996, p. 90). The objective of meditation is to be present, right where one stands, fully conscious and aware, similar to the definition of mindfulness (Keown, 1996, p.91). The main distinction between mindfulness and meditation is: meditation is the formal practice of mindfulness. One tries to be mindful in every situation, while one sets aside time to meditate and practice being mindful (Carmody & Baer, 2008).

Today mindfulness and meditation have surfaced in the secular world as an approach to improve health and wellness (Burke & Hawkins, 2012). According to Wangu, (1993) the compassion and wisdom based teachings of Buddha encourage high ideals and an exemplary life for society, whether one leads a religious or a secular life (p.119). A substantial amount of research exists highlighting both the physical and psychological health of people who practice mindfulness, in medicine, psychology, behavioral intervention and education (Kaltwasser, Sauer & Kohls, 2014; Esch, 2014).

Evaluations of the brains, of those who practice meditation and live mindful lives, have found structural difference in the gray matter, in the brain, when compared to those who do not meditate (Holzel et al., 2010). Gray matter in the brain works to process signals generated with the sensory organs or other gray matter (Robertson, 2010). The hippocampus, which helps regulate emotions, memory and cortical arousal and responsiveness appeared to have an increase in gray matter, suggesting that those who participate in meditation and mindful behavior may have an increase in their ability to regulate emotional responses (Holzel et al., 2010). An increase in left anterior brain activity, linked to positive feelings and higher immune function, was discovered in those who practice meditation and mindfulness as well. The changes in the brain structure due to living mindfully demonstrates the connection between mind and body, showing both the positive physical and emotional health impacts of mindful activity (Esch, 2014). Along with increased brain function in mindful people, a deactivation of the amygdala has also been shown (Esch, 2014). The amygdala, like the hippocampus, regulates emotions, but when activated the amygdala causes intense emotions like fear and aggression (Wright, 1997). With the deactivation of the amygdala the emotions expressed by the person will be more balanced and stable.

Mindfulness is like growing, as a person, from the inside out. Mindful living teaches a person to better deal with challenges and stress, which according to Positive Psychology research is the key ingredient for a life full of success and happiness (Esch, 2014, p.156). According to Esch (2014), those who practice mindfulness also have the ability to evoke the 'relaxation response' (p.155). The 'relaxation response' is the natural opponent to the 'stress response', which legitimizes the medical, clinical or therapeutic effect observed in those who practice mindfulness (Esch, 2014, p. 155). Mindfulness requires that a person be fully aware in the

present allowing for that person to turn off the automatic tendency to become stressed. By looking at the situation in the present and determining if the ‘stress response’ should really be elicited, the person has time to truly evaluate the situation while remaining calm and balanced. The focus on the here and now, or ones own breath can be enough to significantly decrease psychological and physiological stress (Esch, 2014).

The ability to reduce stress through mindfulness makes mindfulness an ideal program to implement in schools. With 46.3% of 13 to 18 year olds having a lifetime prevalence of any mental health disorder and 25.1% having an anxiety disorder, something needs to be added to the school curriculum to help combat this poor mental health prevalence (Merikangas et al., 2010). Mindfulness when practiced with teachers and school aged children has been found to not only reduce stress, but improve attention, self-regulation, classroom behavior, optimism, compassion, increased feeling of acceptance, critical thinking skills and an increase in identity (Black & Fredando, 2014; Zimmerman, 2013; Burke & Hawkins, 2012; Viafora, Mathiesen, & Unsworth, 2014). With a program that involves mindfulness the gap between academics and social and emotional learning can be bridged resulting in students who are not only capable in the world of academia, but also in the world outside academia and, most importantly, the world within the confines of their own mind and body (Burrows, 2011). Therefore, in order to explore a detailed review of the relationships described with a mindfulness framework, this thesis will argue that mindfulness should become apart of the curriculum in K-12 schools.



## Chapter 2: Literature Review

Mindfulness has gone through an evolution. Starting as part of the Buddhist teachings and now as part of the secular world. Mindfulness has been used across disciplines including medicine, clinical work, and intervention programs. As of late, mindfulness is emerging as a method to teach social and emotional learning. The overall trend in mindfulness research is the application of mindfulness techniques in order to improve the subjects' overall well-being. Overall well-being can be defined in a number of ways depending on the literature's goals and conclusions. In the medical field it is most commonly described as reducing or eliminating symptoms of a disorder or disease. Clinically a subject's overall well-being is most commonly described as good mental health, which is often studied in subjects with mental health problems, such as anxiety. Scientifically a subject's overall well-being is commonly described as an increase in brain density, attributing to better brain functioning. While in education overall well-being is described as resilience in their subjects, which is often defined, as stable social and emotional interactions between subjects and within the subject's own self. The conclusion of most studies of mindfulness is that the application of mindfulness techniques does improve the overall well-being of the subjects across fields of study. A few studies have not found conclusive enough results to be certain mindfulness had a big enough impact on the subjects, but none of the studies reviewed had results that showed an adverse effect on the subjects from the application of mindfulness.

The purpose of this review is to show that mindfulness should be applied to schools to improve the overall well-being of the all members of a school, but most importantly the students in the school. Extensive research has been done on the application of mindfulness in disciplines other than education, and on the application of mindfulness in adults, but a gap exists in research

when it comes to the application of mindfulness in the education of the school-aged population. This literature review will analyze the popular fields of mindfulness research, such as the medical, scientific and clinical fields, as well as the emergence of the application of mindfulness on teachers and students, to provide a basis for the argument that mindfulness teachings should be applied to all students in an educational setting in order to help students improve their overall well-being and prepare them for their life ahead.

### **I. What is Mindfulness?**

Ample research exists that highlights and details mindfulness and what it looks like. A main consensus exists when it comes to defining mindfulness: mindfulness is the conscious awareness of present moment and how you and the world around you fit into that moment (Meiklejohn, et al., 2012; Kabat-Zinn, 2003; Viafora et al., 2015). Mindfulness includes two primary aspects: self-regulation of attention and non-judgmental awareness (Jennings, Snowberg, Coccia, & Greenberg, 2011, p. 39). Self-regulation of attention is the conscious awareness of the present moment and of one's emotional and cognitive experience as the moment occurs (Jennings et al., 2011, p.39). Non-judgmental awareness is living in the present moment with curiosity, openness, acceptance and kindness (Jennings et al., 2011, p. 39; Viafora et al., 2015). Mindfulness should also be a portable entity. The application of mindfulness on all aspects of daily living such as, at the dinner table, when walking to the bus, before sleep, and even when in front of a large group of people, remains the goal. (Viafora et al., 2015; Jennings et al., 2011).

## **II. Effects of Mindfulness on the Medical and Clinical Fields**

Mindfulness meditation has been directly connected with an increase in the brain's gray matter and overall connectivity (Esch, 2014; Holzel et al., 2011). The structural changes in the gray matter in the brain are specifically seen in areas of the brain that control attention, memory, body awareness and self- and auto-regulation (Esch, 2014). The hippocampus, charged with regulation of emotions, is among the places in the brain to see an increase in gray matter after mindfulness meditation (Holzel et al., 2011). The increase of gray matter in the hippocampus suggests an improved function of emotional regulation after mindfulness practice (Holzel et al. 2011).

Mindfulness not only changes the brain structurally, but also has inhibitory effects on amygdala responses (Esch, 2014). The amygdala regulates fear related emotions, such as the fight, flight or freeze responses. Mindfulness practice helps integrate higher neuronal connections inhibiting automatic responses to stimuli, which can often be undesirable, such as stress or fear (Esch, 2014). Just as mindfulness helps regulate emotions through the hippocampus, it also helps inhibit the fear response from the amygdala.

With an increase in gray matter from mindfulness an improvement in overall cognitive processing is also reported (Esch, 2014). During higher order cognitive processes, such as functional learning, the brain creates a pattern of synchronized, high frequency gamma waves in an Electroencephalogram<sup>1</sup> (Esch, 2014).

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<sup>1</sup> Electroencephalogram- (EEG) is a test that detects electrical activity in your brain using small, flat metal discs (electrodes) attached to your scalp. Your brain cells communicate via electrical impulses and are active all the time, even when you're asleep. This activity shows up as wavy lines on an EEG recording. (Mayo Clinic (2014). Tests and Procedures. <http://www.mayoclinic.org/tests-procedures/eeg/basics/definition/prc-20014093>).

These same patterns are also seen in the brain during meditation (Esch, 2014). Mindful meditation mimics higher order cognitive processes, strengthening the brains connections and pathways (Esch, 2014; Holzel et al., 2011).

Mindfulness is also used as a treatment for disease and disorder symptoms. According to Lush et al. (2009) after mindfulness practice fibromyalgia patients discovered a decrease of sympathetic nervous system activity. Sympathetic nervous system activation is associated with an increase in perspiration, heart rate, and peripheral blood vessel resistance, which can increase pain in the patients (Lush et al., 2009). In a 2005 study, Napoli found a decrease in ADHD behaviors in students after a twelve- session mindfulness program. In keeping with mindfulness as a treatment, Strauss, Cavanagh, Oliver, and Pettman (2014) found mindfulness to be an effective treatment for a current episode of depression or anxiety disorder. They found that mindfulness interventions decreased the patient's depression and anxiety symptoms (Strauss et al., 2014).

Mindfulness based practices have also been used in therapeutic settings. According to Carson, Carson, Gil, and Baucom (2004), mindfulness based programs were effective in improving couples' relationships. Couples reported an improvement in individual partners' coping skills, and increase in acceptance of partners as well as an increase in overall confidence in the relationship after completion of a mindfulness program (Carson et al., 2004). The mindfulness-based program enhanced the relationships as well as the individual partners.

### **III. Effects of Mindfulness on Teachers**

According to Meiklejohn et al. (2012), teachers are provided with few ways to reduce stress. With all the stress teachers face on a daily basis, not having the tools to de-stress when

needed is detrimental to a teacher's success in the classroom (Meiklejohn et al., 2012).

Mindfulness practice can give teachers a tool to help de-stress and can have a positive effect not only on themselves, but also on their classroom and students (Jennings et al., 2011; Burrows, 2011; Saltzman, 2010; Meiklejohn et al., 2012).

Mindfulness practices can improve a teacher's ability to self-regulate their emotions (Jennings et al., 2011; Burrows, 2011; Saltzman, 2010). According to Saltzman (2010), teaching is a very stressful job, as the requirements of teachers are expansive. Teachers must teach their content, make sure student learning takes place and ensure students will pass the high stake testing often required at the end of the year (Saltzman, 2010). With all these stressors, tools to help educators are essential. Mindfulness can be that tool for educators. It will teach educators to care for themselves and learn to balance the emotional demands of working with students (Saltzman, 2010). According to Jennings (2011), after a mindfulness professional development program, educators reported a decrease in their apparent stress level and an increase in their sense of emotional control. Burrows (2011) states that, educators who wish to develop control over their own emotions could greatly benefit from mindfulness-based practice (p.28). With help from mindfulness, teachers will be able to take charge of their own emotions and be better equipped to take on all the stressors associated with daily life in a school.

With all the demands associated with being an educator, teachers often become overwhelmed and burnout. Through a mindfulness program, Jennings et al. (2011) reported an increase in the resilience of teachers working with at-risk populations of students, who often come with additional stressors for teachers. Schools who offer programs like mindfulness give teachers the training needed to appropriately cope with problems that arise, increasing their resilience and decreasing the likelihood of them becoming too overwhelmed (Meiklejohn et al.,

2012). When schools offer programs to better equip their faculty for working with students, they invest in the well-being of their teachers and make them more resilient.

Teacher's who practice mindfulness can foster both a well-managed learning environment and better relationships with their students. According to Jennings et al. (2011) after a mindfulness professional development program teachers reported a greater ability to create and maintain a classroom conducive to learning. These same teachers also reported that the program helped them create and maintain better, lasting relationships with their students (Jennings et al., 2011).

When teachers can take better care of themselves they can improve both their overall well-being as an individual and also have a positive impact on their students. With mindfulness practice teachers can improve their resilience, their control over their emotions, and build a community conducive for learning in their classrooms (Jennings et al., 2011; Burrows, 2011; Saltzman, 2010; Meiklejohn et al., 2012).

#### **IV. Effects on School Aged Children and Adolescents**

Mindfulness teaches students how to regulate their emotions, giving students a tool to help them cope with their emotions throughout life. Broderick and Metz (2009) define emotion regulation as “a broad construct, which generally refers to the ability to recognize and manage emotions adaptively” (p.36). After mindfulness programs student awareness of their emotions increased, so that when extreme emotions surfaced the student was not only aware that these emotions emerged, but also had tools to help bring him/herself back into balance (Kaltwasser et al., 2014; Broderick & Metz, 2009). According to Viafora et al. (2015), once students attend to their emotions, their awareness increased allowing them to respond to these feelings without

reacting impulsively. The programs help students develop skills to accurately reflect on their own emotion, which stays with the students throughout their life (Burke, 2010). According to Black and Fernando (2014), the most significant implication to emotional regulation developed from mindfulness programs is the student's ability to learn and flourish when they are no longer emotionally distressed.

Mindfulness can increase student resilience and defend against mental health issues. According to Gould, Dariotis, Mendelson, and Greenberg (2012) student's who do not have the ability to regulate emotions are at a higher risk for social, emotional and behavioral problems. However with programs like mindfulness, where the intent is to strengthen emotional awareness, these risk factors are combated creating more resilient individuals (Viafora et al., 2015). Huppert and Johnson (2010) have found that student's at risk for mental health issues actually respond better to a protective intervention, such as mindfulness. When protective measures are put into place, students will receive more positive outcomes when it comes to their social and emotional health (Broderick & Metz, 2009). Mindfulness defends against mental health issues by making students more resilient and less susceptible to the risk factors associated with mental health, which allows them to become individuals who can better deal with anything life throws at them (Burke & Hawkins, 2012).

Mindfulness has increased both a student's ability to pay attention, and a student's academic success. In studies conducted by Napoli (2005), Kaltwasser et al. (2014) and Black and Fernando (2013), they all reported an increase in their test subject's attention after involvement in a mindfulness program. Napoli (2005) also reported a decrease in her subjects' ADHD behaviors. In mindfulness programs, students are taught how to anchor their attention, therefore creating students who have better control over their attention (Burke, 2010). Viafora et al.

(2015) discovered both an increase in students' attention as well as their academic achievement after being exposed to a mindfulness program. Through mindfulness practice a student becomes more aware of the world around them and their own personal view about that world. When students have a better grasp on how they feel about the world they can more easily make connections to the material presented in school. Students who can readily make connections with the material are more likely to retain that information (Kaltwasser et al., 2014). According to Kaltwasser et al. (2014) students exposed to a mindfulness program are likely to develop a growth mindset along with better emotional and attention control. A growth mindset in students, leads to a higher likelihood of sustained effort in school, working hard for academic achievement and the ability to adapt in their learning (Dweck, 2010). Students who work hard in school and are more resilient often thrive in academics even when the information becomes more complex (Dweck, 2010). Welford and Langmead (2015) also discovered a direct correlation between mindfulness programs and an improvement in a student's motivation and productivity in school.

Mindfulness can increase a student's self-awareness. According to Viafora et al. (2015) mindfulness enhances a child's self-awareness by teaching them to look inside themselves for answers. Mindfulness programs teach students to look at not only the world around them without judgment, but also themselves (Burke & Hawkins, 2012). Burke and Hawkins (2012) explain that mindfulness programs encourage students to be introspective and find purpose and meaning in their life.

Mindfulness enhances a student's relationships and promotes pro-social behavior. According to Kaltwasser et al. (2014) mindfulness teaches students to control their actions leading to less ego-centered and more socially benevolent students. When students use more pro-social behavior, the classroom can become a place with fewer disruptions and more time for



learning (Black & Fernando, 2013). Black and Fernando (2013) also discovered that students showed an increase in participation and respect for the classroom and the people inside it.

Through a mindfulness program students will learn how to show more compassion and cultivate peace throughout their life (Burke & Hawkins, 2012).

## **V. Social and Emotional Learning in Schools**

A mindfulness program can provide schools with a way to teach social and emotional learning. According to Burrows (2011), schools are missing an essential piece of education that mindfulness can fulfill: social and emotional learning (SEL). In a time where character education is at the forefront in education, SEL as a part of the school curriculum is a growing consensus (Kaltwasser et al., 2014; Burke & Hawkins, 2012). According to the NICE Public Health Guidance (2009), the increase in the number of mental health problems requires education facilities to adopt programs for social and emotional well-being. The job of a school stretches far beyond a child's academic well-being, but includes the well-being of the whole child as well (Huppert, & Johnson, 2010). With a focus primarily on academics students do not develop the necessary qualities to become a skillfully functioning member of society (Saltzman, 2010). Schools must address student's social and emotional needs to prevent present and future problems (Broderick & Metz, 2009). Students who lack social and emotional skills often fall into identities that do not truly reflect themselves, which can cause hardship in adulthood (Graham & Power, 2004). According to Colman, Maughan, Kuh, Croudance, and Jones, (2009) students who lack control over their emotions and lack SEL often have conduct problems, which increase their risk for teenage pregnancy, unemployment, divorce and mental health issues. With a mindfulness

based program students are encouraged to not only increase their academic learning but also their SEL.

## **VI. Necessary Parts to a Mindfulness Program**

For any program to work there must be a few conditions set into place to allow for success and mindfulness is no exception.

Teachers must have a background in mindfulness before teaching it to their students. Just like teachers who teach science or English are expected to have a background education in their subject area, the same must be true for teachers who teach mindfulness. According to Mary Birchenough<sup>2</sup>, “you can’t teach what you don’t have,” therefore mindfulness teachings must come from within your own personal practice (Personal Communication, December 11, 2015; Saltzman, 2010). Students will need an authentic education and in order to provided that for students; the teacher will need to embody the practices (Burrows, 2011).

For a mindfulness program to work the stage must be set for students first before they can successfully learn mindfulness practices. Working with students can be tricky as many students, especially adolescents, are reluctant to engage in new things, particularly things that may appear weird to them. Mindfulness practice is different from how many people live their lives and may require students to step out of their comfort zone; therefore motivation must be sparked within the students for the mindfulness program to work (Kaltwasser et al. 2014). This motivation can take the form of frontloading information about the connection between the body and the mind for students. (Mary Birchenough, Personal Communication, December 11, 2015). According to

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<sup>2</sup> Mary Birchenough is a sixth grade social studies teacher at Brockport CSD, Brockport, NY. She teaches and continually incorporates Mindfulness into her classroom. She was interviewed to get a real life perspective on using mindfulness in the classroom.

Birchenough, it is essential to first show students the parts of the brain and how they work.

(Personal Communication, December 11, 2015). After establishing a basic understanding of the hippocampus, the amygdala and the prefrontal cortex, students will better understand why certain situations affect their feelings. When students understand the connection between mind, body and emotions, they will likely jump on board with the mindfulness teachings.

Mindfulness requires sustained practice to be beneficial. Just like most skills, mindfulness requires practice in order to find success. Students should be given a chance to practice their mindfulness skills daily, and should sustain this practice for at least one year (Saltzman, 2010). An important factor for this sustained practice is support from many teachers and administrators (Jennings et al., 2011). When mindfulness has whole school support more practice will be available for students.

Mindfulness should be a preventative program accessible to everyone, not a reactive program, just for those who qualify. According to Slade (2003) schools need to switch their focus to preventative measures rather than reactionary. Mindfulness can be a part of a comprehensive plan that focuses on preventative measures to combat mental health problems in schools (Broderick & Metz, 2009). Along with the preventative nature of a program, the program should be accessible to everyone. In the past schools have used special education services and clinical services to help students with mental health issues, but those come with legal mandates (Slade, 2003; Broderick & Metz, 2009). With mindfulness all students would have access to a preventative program without having to be classified or diagnosed.

## **VII: Summary**

Mindfulness has developed extensively since it was first introduced in the secular world and continues to be a topic of discussion. While mindfulness has crossed various areas of study all of the research explores one thing: a person's overall wellness. Whether overall wellness fits into the medical, clinical or educational fields, the research supports the use of mindful practices, as long as certain conditions exist. This literature review focused on the sources relevant to education as well as sources from the scientific and medical worlds needed to build a background. Using the research presented in the literature review this thesis will argue that mindfulness should be incorporated in to the classroom to support student's overall wellness.

### **Chapter 3: Argument**

Most people get into education because they want to positively touch the lives of students. Some would even argue that any other reason would warrant a career change. A secondary teacher who teaches for 35 years, with four classes of 24 students each year, will have had 3,360 students in their career as a teacher (National Center for Educational Statistics). That is 3,360 students to teach content to, but should content be all students receive from their teachers? Recently a shift in education has occurred towards character development and critical thinking skills (Burke & Hawkins, 2012). Teachers are, now more than ever, expected to focus on the whole student, not just the student's success in academics (Huppert & Johnson, 2010). Teachers must wear many hats in their classroom. According to Jennings et al. (2011) teachers are required to manage, instruct, and keep control over the emotional challenges of a classroom. As students graduate and go into the world, it is now expected that their teachers have prepared them for this transition, which requires a lot more knowledge than one plus one equals two

(Broderick & Metz, 2009). Throughout the students' educational career, teachers should have encouraged students to find their purpose in life, and developed world citizens who can function in society both physically and emotionally (Saltzman, 2010; Burke & Hawkins, 2012).

Even with all the new pressures on teachers to teach more than just the curriculum, there still remains a gap in students' social and emotional learning (SEL). In children, especially adolescents, mental illness is on the rise (Welford & Langmead, 2015). Schools have a very limited amount of programs to help students with mental health. According to Slade (2003), a reorganization of schools mental health services is needed. Often students cannot access mental health services without a disability classification or a clinical diagnosis (Slade, 2003). Both services are reactionary, not preventative in nature, meaning that students must get to the point of a mental illness before appropriate help is received. According to Colman et al. (2009), adolescent conduct problems have also increased over the last thirty years. Students exposed to events that cause them stress or emotional harm often have an impairment in their ability to regulate emotions leading to an inability to modulate responses to stress. An inability to modulate responses often expresses itself as conduct problems or emotional outbursts (Gould et al., 2012). Students with conduct problems are associated with dropping out of school, teenage pregnancy, low self-affirmation, unemployment, substance abuse, and mental illness, such as depression, anxiety and suicidal behavior. According to the National Institute for Health and Care Excellence (2009), "teachers should demonstrate a commitment to the social and emotional wellbeing of young people" (p. 8). The social and emotional aspects of students often seep into academics and the stress students feel generally inhibits learning from taking place at all (Saltzman, 2010; Broderick & Metz, 2009). On a daily basis students are required to do so much. They are asked to listen, pay attention for hours at a time, learn the content, and remain

composed throughout the day, not to mention the demands on students outside of school (Saltzman, 2010). We demand all this from students, but are students ever really taught how to do these things?

Mindfulness can help close this SEL gap in schools and teach students skills to cope with all of the demands placed on them. According to Burrows (2011), it is the “missing piece” in SEL learning (p.24). Mindfulness acts as a preventative program that teaches students how to regulate their emotions and attention. Students will learn to be more “responsive rather than reactive” (Burke and Hawkins, 2012, p. 37). Through the program students learn how expectancies, impulses, beliefs, assumptions and automatic emotional evaluations can impact their decision making, and not always in a positive way (Kaltwasser et al., 2014). Mindfulness teaches students the importance of reflection, of themselves and of the situation at hand, making mindfulness relevant in all aspects of life, not just in the classroom.

Mindfulness practices have many benefits for the practitioner and a large number of those benefits can directly improve a student’s academic career and life in general. According to Burke and Hawkins (2012), mindfulness unlocks student potential in academics and also in life as a whole. In terms of academic success mindfulness has found to increase productivity, (Welford & Langmead, 2015). Productivity directly relates to a student’s academic achievement. Students need to be productive and have a work ethic in school in order to get assignments done. Memory is also a function that students must use in school everyday, as school is a cumulative process: things you learned before must be remembered years, months, and days later. According to Saltzman (2010) mindfulness practice has improved memory. A student’s attention is also critical in school and improved with mindfulness practice (Napoli, 2005). A school is a very distracting place, filled with student’s friends, adversaries, lots of colors, sounds, and smells.

School can be a sensory overload for many, making a student's ability to focus his/her attention on learning necessary for academic success. A student's emotions can also be very distracting throughout the school day. Emotions can taint situations, cause reactionary behaviors and create a classroom not conducive to learning, but with mindfulness students will have tools to control their emotions and bring themselves back into a balanced state (Broderick & Metz, 2009). According to Kaltwasser et al. (2014), mindfulness fosters a growth mind-set in students. A growth mindset will not only help students in academics, but also in life outside of school. Students with a growth mindset become more resilient to struggle, and remain involved instead of giving up when things get hard (Dweck, 2010). Through mindfulness practice students will gain skills that will help them to better learn the content in a classroom.

Mindfulness helps students with academic success, but as stated before teachers and schools must now teach more than just content. Mindfulness also develops life long skills that will help students to understand and cope with their emotions and responses. Those who practice mindfulness have an increased self-acceptance. According to Graham and Power (2004), those who do not feel an intrinsic self-acceptance will look for acceptance from other people, which often leads to disadvantage in adulthood, such as unemployment, divorce, and imprisonment. Mindfulness also helps prevent mental illness and combats the conditions that increase the potential for mental illness (Broderick & Metz, 2009). With the rising number of mental illness cases, building mental health skills is more important than ever. Stress is very prevalent in our society today and has been linked to disease and mental illness; therefore stress management has become a very important skill to have. Mindfulness teaches students how to deal with stress, decreasing their risk for disease. Mindfulness also increases resilience in students (Broderick & Metz, 2009). Through teaching reflection students learn to analysis situations and critically think

about how to make a situation better. If students can understand why something did not work, then they are less likely to give up after one try (Broderick & Metz, 2009). When moving through life we often make decisions on autopilot, but training in mindfulness teaches students to slow down and respond rather than react (Burke & Hawkins, 2012). Mindfulness strengthens the hippocampus, blocking the amygdala responses of fight, flight or freeze, which often occur when we make decisions on autopilot (Kaltwasser et al., 2014). With practice students become aware of amygdala flare ups and are taught ways to calm themselves down in order to reassess the situation with less emotional bias. As a result of mindfulness practices students will gain coping skills that will help them deal with all of the demands that are placed on them in and out of the classroom.

Mindfulness also helps students to navigate social interactions. Besides the added benefit of better emotional control, students are found to be more socially benevolent (Kaltwasser et al., 2014). Students become more compassionate towards others and empathetic in thoughts and interactions. Mindfulness encourages students to become less ego-centered and judgmental, leading to less hostility (Kaltwasser et al., 2014; Saltzman, 2010; Jennings et al., 2011). When students become more compassionate, they have better peer relationships as well as better student-teacher relationships (Jennings et al., 2011). Mindfulness teachings foster a kinder atmosphere creating a community of learners who feel safe in the classroom.

Mindfulness is an ideal option for a SEL program because it can be easily incorporated into any class. Practicing mindfulness does not have any disciplinary ties and can be tailored to fit any classroom, however a correctly designed program does require a few things to ensure students reap all of the benefits of the practice. Mindfulness requires a bit of frontloading at first. The frontloading is necessary for students to understand how and why mindfulness works



(Birchenough, Personal Communication, December, 11, 2015; Welford & Langmead, 2015; Kaltwasser et al., 2014). Students should be taught about the parts of the brain, specifically the prefrontal cortex, the hippocampus and the amygdala. This will give students a rational for mindfulness and spark their interest in the activities (Birchenough, Personal Communication, December, 11, 2015; Welford & Langmead, 2015; Kaltwasser et al., 2014). The content can be scaled up or down for any grade level. While initially content time may be used for this frontloading, after some practice with mindfulness instructional time will increase due to students' ability to better control their mind. Mindfulness allows teachers to include SEL into their curriculum, while still reaping the benefits it provides on students' academics. After frontloading, mindfulness also requires sustained practice for students to reap all the benefits. This sustained practice could be as simple as a reminder to students to take a deep breath; giving their brain a few seconds break from work, to a more complex curricular integration (see appendix 2).

Another requirement for successful incorporation into the classroom is a teacher who practices mindfulness individually (Burrows, 2011; Birchenough, Personal Communication, December, 11, 2015). The success of mindfulness in the classroom is directly related to the effort the teachers puts into the practice. While resources exist to help teachers integrate mindfulness into the classroom (see appendices), the teacher's own mindfulness practices must be the driving force behind the classroom incorporation. Just like at the beginning of teaching mindfulness to your students, the beginning of a teacher's mindfulness practice and classroom practice development will take some time. However, the time taken to build a mindful classroom is not lost. The teacher will also reap all the benefits of mindfulness practice for themselves. Teachers

are under just as much stress as students are, therefore mindfulness practice also improves teachers' emotional control, and resilience (Jennings et al., 2011).

Mindfulness in the classroom can be an answer for the gap in SEL in schools. Mindfulness provides students with skills to succeed both inside and outside the classroom. Students will reap the benefits from mindfulness for years, and will leave school ready to take on whatever life may bring them. While mindfulness takes time to develop in the beginning and sustained practice throughout the year, teachers will actually gain time in instruction by having a more focused class ready to learn. Through implementing mindfulness in the classroom, teachers will also gain all the benefits of mindfulness practice, making the entire classroom a better environment for learning.

#### **Chapter 4: Conclusion**

Mindfulness has made its mark in countless fields of study. The practice of uninterrupted, non-judgmental conscious awareness of the present moment has improved the well-being of many people struggling with something as specific as fibromyalgia to something as common as the daily stressors of life (Burke & Hawkins, 2012; Kabat-Zinn, 2003; Lush et al., 2009). With life today in this fast pace world, we all too often set ourselves on autopilot. In autopilot we become reactive individuals, instead of responsive, allowing our emotions and prejudices to get in the way of making decisions (Kaltwasser et al., 2014; Burke & Hawkins, 2012). Reactive responses can lead to more stress, broken relationships and overall poor well-being, but mindfulness practice can help. Mindfulness has found to increase the gray matter in the brain, decrease feelings of anxiety and depression, and increases a person's awareness of their emotions and reactions.

While some may think that childhood is a place of bliss, in the last few decades there has been an increase in conduct problems and mental illness in school aged children (Colman et al., 2009; Merikangas et al. 2010). This increase in conduct problems and mental illness has brought to the attention of many that at schools there is too much of a focus on curriculum and not enough on the whole child (Huppert & Johnson, 2010). There is a gap in SEL in schools and it is leaving students unprepared for life outside of academics (Burke & Hawkins, 2012).

K-12 school is a rapid time of change for students (Broderick & Metz, 2009). Students experience new emotions, people, ideas, and responsibilities, which can cause an increase in stress. A lot is asked from a student on a daily basis and the student is not necessarily taught how to tackle all of the demands, creating a cycle of problems (Saltzman, 2010). However there is an answer to this problem: mindfulness. Mindfulness should be used in the K-12 classroom because it can offer students ways to not only deal with the curricular demands of school, but also with the demands outside of academics, such as relationships, listening, and emotions. Mindfulness in the classrooms will allow teachers to focus on the whole child instead of just the content the child must learn in school. Mindfulness can help students increase their control over their emotions and attention, while also increasing their academic performance by increasing productivity, memory, and listening skills (Saltzman, 2010; Broderick & Metz, 2009; Napoli, 2005). Mindfulness will also give the students the tools to combat mental health issues through learning resilience and strengthening their emotional awareness (Viafora et al., 2015).

While there are many aspect of mindfulness that will take time to develop in the classroom, the outcome is worth the investment. When teachers put in the effort to implement mindfulness in the classroom they will gain students who are more focused and ready to learn. The classroom will become a community of caring learners, where great ideas and relationships

will be created. Teachers who also implement mindfulness in the classroom will not only see these changes in their students, but also themselves. Mindfulness is an option that will help teachers reach the goal of creating students who are not only capable in the classroom, but in life (Broderick & Metz, 2009).

With the call for more social and emotional learning in schools and all the benefits seen from mindfulness-based practices, mindfulness should be implemented into the K-12 curriculum. The development of a mindfulness program will create individuals who have the skills to tackle anything life throws at them inside or outside the classroom.

## References

1. Birchenough, Mary. Personal Communication. December 11, 2015.
2. Black, D., & Fernando, R. (2014). Mindfulness training and classroom behavior among lower-income and ethnic minority elementary school children. *Journal of Child and Family Studies*, 23, 1242-1246.
3. Broderick, P., & Metz, S. (2009) Learning to BREATHE: A pilot trial of a mindfulness curriculum for adolescents. *Advances in School Mental Health Promotions*. 2(1), 35-46.
4. Burke, A., & Hawkins, K. (2012). Mindfulness in education: wellness from the inside out. *Encounter: Education for Meaning and Social Justice*, 25(4), 36-40.
5. Burke, C. (2010). Mindfulness-Based Approaches with Children and Adolescents: A Preliminary Review of Current Research in an Emergent Field. *Journal of Child and Family Studies*, 19, 133-144
6. Burrows, L. (2011). Relational mindfulness in education. *Encounter: Education for Meaning and Social Justice*, 24(4), 24-29.
7. Carmody, J., & Baer, R. (2008). Relationships between mindfulness practice and levels of mindfulness, medical and psychological symptoms and well-being in a mindfulness-based stress reduction program. *Journal of Behavioral Medicine*, 31, 23-33.
8. Carson, J., Carson, K., Gil, K., & Baucom, D. (2004). Mindfulness-based relationship enhancement. *Association for Advancement of Behavior Therapy*, 35, 471-494.
9. Colman, I., Maughan, B., Kuh, D., Croudance, T.J. & Jones, P.B. (2009). Outcomes of conduct problems in adolescence: 40-year follow-up of national cohort. *British Medical Journal*, 338, 208-211.
10. Esch, T. (2014). The Neurobiology of meditation and mindfulness. *Meditation-Neuroscientific Approaches and Philosophical Implications*. Switzerland: Springer International Publishing.
11. Dweck, C. S. (2010). Even Geniuses Work Hard. *Educational Leadership*, 68(1), 16-20.
12. Gould, L., Dariotis, J., Mendelson, T., & Greenberg, M. (2012). A school-based mindfulness intervention for urban youth: Exploring moderators of intervention effects. *Journal of Community Psychology*, 40(8), 968-982.
13. Graham, H., & Power, C. (2004). Childhood disadvantage and health inequalities: A framework for policy based on lifecourse research. *Blackwell Publishing Ltd. Child: Care, Health, & Development*, 30(6), 671-678.

14. Hölzel, B., Carmody, J., Vangel, M., Congleton, C., Yerramsetti, S., Gard, T., & Lazar, S. (2011). Mindfulness practice leads to increases in regional brain gray matter density. *Journal of Psychiatry Research: Neuroimaging*, 191, 36-43.
  
15. Huppert, F., & Johnson, D. (2010). A controlled trial of mindfulness training in schools: the importance of practice for an impact on well-being. *The Journal of Positive Psychology: Dedicated to Furthering Research and Promoting Good Practice*, 5(4), 264-274.
  
16. Jennings, P., Snowberg, K., Coccia, M., & Greenberg, M. (2011). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of two pilot studies. *Journal of Classroom Interaction*, 46(1), 37-46.
  
17. Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science & Practice*, 10(2), 144-156.
  
18. Kaltwasser, V., Sauer, S., & Kohls, N. (2014). Mindfulness in German schools (MISCHO): A specifically tailored training program: Concept, implementation and empirical results. *Meditation-Neuroscientific Approaches and Philosophical Implications*. Switzerland: Springer International Publishing.
  
19. Keown, D. (1996). *Buddhism: A very short introduction*. Oxford, NY: Oxford University Press.
  
20. Lush, E., Salmon, P., Floyd, A., Studts, J., Weissbecker, I., & Sephton, S. (2009). Mindfulness meditation for symptom reduction in fibromyalgia psychophysiological correlates. *Journal of Clinical Psychology in Medical*, 16, 200-207.
  
21. Meiklejohn, J., Phillips, C., Freedman, M., Griffin, M., Biegel, G., Roach, A., ... Saltzman, A. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Springer Science Business Media, LLC*
  
22. Merikangas, K., He, J., Burstein, M., Swanson S., Avenevoli, S., Cui, L., ... Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Study- Adolescent Supplement (NCS-A). *J Am Acad Child Adolesc Psychiatry*. 49(10), 980-989.
  
23. Napoli, M. (2005). Mindfulness training for elementary school students: The attention academy. *Journal of Applied School Psychology*, 21(1).
  
24. The National Institute for Health and Care Excellence (NICE). (2009). Social and emotional well-being in secondary education. *NICE Public Health Guidance* 20, 7-14.

25. Robertson, S. (2010). What is Grey Matter? Retrieved September 28, 2015 News Medical Net
26. Saltzman, A. (2008). Still quiet place: Practices for children and adolescents to discover peace and happiness. Unpublished manuscript.
27. Saltzman, A. (2010). Mindfulness: A guide for teachers from PBS Teachers and Classrooms 2.0.
28. Strauss, C., Cavanagh, K., Oliver, A., & Pettman, D. (2014). Mindfulness-based intervention for people diagnosed with a current episode of an anxiety or depressive disorder: A meta-analysis of randomized controlled trials. *PLoS ONE* 9(4), 1-13.
29. Slade, E. (2003). The relationship between school characteristics and the availability of mental health and related health services in middle and high schools in the United States. *Journal of Behavioral Health Services & Research*. 30(4), 382-392.
30. U.S. Department of Education, (2011–12) National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Teacher Data File,"
31. Viafora, D., Mathiesen, S., & Unsworth, S. (2015). Teaching mindfulness to middle school students and homeless youth in school classrooms. *Journal of Child and Family Studies*, 24, 1179-1191.
32. Wangu, M.B. (1993). Buddhism: World Religions. New York, NY: Facts on File, Inc
33. Welford, M., & Langmead, K. (2015). Compassion-based initiatives in educational settings. *The Journal of Education & Child Psychology*, 32(1), 71-80.
34. Wright, A. (1997). Limbic System: Amygdala (Section 4, Chapter 6) Neuroscience Online: An Electronic Textbook for the Neurosciences | Department of Neurobiology and Anatomy - The University of Texas Medical School at Houston.
35. Zimmerman, J. (2013, 9 13 ). What (most) schools fail to teach. *Huffington Post*.

## Appendix 1

*This appendix offers some resources for those who are interested in incorporating mindfulness into their classroom or their life.*

1. Mindfuleducation.org
2. Thehawnfoundation.org
3. Mindfulschools.org
4. Holistic Life Foundation
5. MindUp
6. MindUp Curriculum Guides
7. The Mediation Initiative (TMI)
8. Cultivating Awareness and Resilience in Education (CARE) – Garrison Institute
9. Stress Management and Relaxation Techniques in Education (SMART)
10. Stillquietplace.com
11. Mindfulnessstogether.net
12. Wellnessworksinschools.com
13. Stressedteens.com
14. Emindful.com
15. Contemplativemind.org
16. Mindful.org (Online Newsletter available via email)
17. Practicing P.E.A.C.E.



## Appendix 2

*This appendix offers examples of activities to try with students. The activities should be altered to reflect your own students' needs and interests. Also these activities are based on the assumption that students have the background knowledge necessary to understand these prompts.*

Slow Down Activity: This activity was done in a 6<sup>th</sup> grade classroom.

Hand out M&Ms to the class. Ask them to eat an M&M. Ask them to place another M&M in their mouth but to keep it there for 15 seconds.

*Ask them What is different? What did you notice? Allow time for all students to share if they wish. Model active listening while each student is talking.*

Repeat the process having the students hold the M&M in their mouth for 30 seconds. Then 45 seconds. This time having the students write down their notices.

Now tell the students that we will hold the M&M in their mouth for 1 minute. Discuss what this will require. (*Keeping their attention in their mouth for a whole minute*).

Now have the students hold an M&M in their mouth for 2 minutes. Ask them to raise their hand when it dissolves fully if it is before the 2 minute mark. Discuss what this will require (*Keeping their attention in their mouth for 2 minutes. What do you think will happen to the M&M if you take your attention off? –The M& M will dissolve without your knowledge*).

Ask the students to explain their experience. *What was different from when you normally eat an M&M? Did the M&M taste different?*

Send the students off with a task. Ask them to take something ordinary, such as eating an M&M and slow it down to get a different experience. Ask them what they could slow down this week and might it create a different experience? (Examples: slow down eating lunch, walking home, taking a test, writing a paper, listening to a friend, etc.)

(From Mary Birchenough. Personal Communication. December 11, 2015)

MindUP Curriculum Guides: MindUP is a classroom tested evidence based curriculum for teaching mindfulness. There are currently 3 levels of curriculum books K-2, 3-5 and 6-8.

The curriculum teaches students about how the brain functions while showing them insight into their own minds and behaviors as well as the people around.

MindUP follows its own units of study while also including various suggestions on how to incorporate the lessons into various disciplines, including social and emotional learning.

Mindful Movements: Mindful Movements can help increase a student's retention of a concept.

The incorporation of movement into a lesson will help the students to remember information. The new material will now be part of muscle memory. It connects the mind and body, which students learn is an important connection.

These movements could be a variety of things such as motions of the different way people long ago farmed or a movement to remember the names of the bones in the body.

(From Mary Birchenough. Personal Communication. December 11, 2015)

Still Quiet Place: This activity is for kindergarten through 2<sup>nd</sup> grade, but can be adapted.

*Hi, today I would like to share one of my favorite places with you. It is called Still Quiet Place. It's not a place you travel to in a car, or a train, or a plane. It is a place inside you that you can find just by breathing.*

*Let's find it now. If you feel safe, close your eyes. Whether your eyes are open or closed, take some slow deep breaths. See if you can feel a kind of warm smile in your body. Do you feel it? This is your Still Quiet Place. Take some more deep breaths, and really snuggle in.*

*The best thing about your Still Quiet Place is that it's always inside you. And you can visit it whenever you like. It is nice to visit your Still Quiet Place and feel the love that is there. It is especially helpful to visit your Still Quiet Place if you are feeling angry, or sad, or afraid. The Still Quiet Place is a good place to talk with these feelings, and to make friends with them. When you rest in your Still Quiet Place and talk to your feelings, you may find that the feelings are not as big or as powerful as they seem. Remember you can come here whenever you want, and stay as long as you like.*

(From Saltzman, A. (2008). Still quiet place: Practices for children and adolescents to discover peace and happiness. Unpublished manuscript.)

Brain Break: Everyone needs at least three brain breaks a day. A brain break is used for a time to relax and reorganize ones self before continuing on. In a classroom a brain break could be given at the beginning the class, when you see the students are restless or even when someone in the classroom feels like they need one. A signal and/or sound should be established for the students and the teacher should also establish expectations as to what a brain break looks like. Explain to students that a brain break should be a deep breathe that you can feel all the way into your stomach. This will allow the oxygen to fill your brain and get you ready to work again. Brain breaks are short, but very important.

(From Mary Birchenough. Personal Communication. December 11, 2015)