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Stop, Collaborate, and Breathe: An Examination of the Impact of a Novel Teacher Centered  
Classroom-Based Mindfulness Intervention for Elementary Aged Students

A dissertation submitted in partial satisfaction of the  
requirements for the degree Doctor of Philosophy  
in Counseling, Clinical, and School Psychology

by

Ariel Lipman Goldstein

Committee in charge:

Professor Matthew Quirk, Chair

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September 2019

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Stop, Collaborate, and Breathe: An Examination of the Impact of a Novel Teacher Centered  
Classroom-Based Mindfulness Intervention for Elementary Aged Students

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by

Ariel Lipman Goldstein

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## ABSTRACT

### Stop, Collaborate, and Breathe: An Examination of the Impact of a Novel Teacher Centered Classroom-Based Mindfulness Intervention for Elementary Aged Students

by

Ariel Lipman Goldstein

Research has emerged supporting the use of Mindfulness Based Interventions (MBIs) to treat a spectrum of medical and psychological ailments, including pain, addiction, and anxiety. Beyond the treatment of specific conditions, neuropsychological studies have also shown MBIs to positively impact individuals' executive, attentional, and memory functioning. A recent meta-analysis identified that the majority of research conducted on the use of formalized MBIs has used adult samples (Renshaw & O'Malley, 2014). Consequently, there is currently a dearth of literature pertaining the use of MBIs with youth. The present study was conducted to evaluate the impact of a school-based mindfulness program for elementary aged children ( $N = 138$ ). Teacher reported data on student levels of attention, hyperactivity, and prosocial behavior were collected at three time points throughout the school year (Fall, Winter, and Spring). A repeated measures mixed between-within Analysis of Variance (ANOVA) was conducted to examine main effects on each dependent variable, as well as, interaction effects and main effects on each of four grouping variables (age, sex, parent-education, and fidelity). Significant main effects were detected over the course of the intervention on the variables of attention, hyperactivity, and prosocial behavior. Further

analysis of grouping variables found significant differences between boys and girls on all three dependent variables. Significant differences were also found between levels of parent education on the variables of attention and prosocial behavior. These findings support trends observed in the growing literature on MBIs and youth. Implications for the feasibility of implementing MBIs in a classroom setting are also discussed.

*Keywords:* mindfulness, youth, children, school-based intervention, MBI, attention, hyperactivity, prosocial behavior, repeated measures mixed between-within ANOVA

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## CHAPTER 1: INTRODUCTION AND REVIEW OF THE LITERATURE

A national conversation has emerged in recent years about the need for universal standards in education and the role that standardized assessment should play in the educational system. Policy makers and scholars alike have expressed concerns about the rise in popularity of the Common Core standards (Main, 2012). Furthermore, legislation such as No Child Left Behind and Race to the Top, all have some sort of accountability in place that is based on standardized test scores. This has resulted in schools becoming hyperaware of achievement and, consequently, increasing their efforts to improve test scores. Former Assistant Secretary of Education, Diane Ravitch (2010), fears that the new emphasis on tests scores could destroy intrinsic motivation by undermining a love of learning and the yearning to acquire knowledge. Other scholars have shown concern over these universal standards drawing attention away from other, much-needed, areas of reform (Mathis, 2010). While very few will argue against holding students to high academic standards, the fear is that the current national climate on education prioritizes mastery of these standards at the expense of opportunities to educate the holistic student.

The cost of prioritizing only academic gains in the educational system may be a decrease in the number of students with the non-academic skills necessary to facilitate learning. Research has shown that for kindergartners with low to average reading skills, those with higher levels of social skills performed better on academic assessments as far out as fifth grade (Cooper et al., 2014). Other non-academic skills in kindergarten that have been found to significantly predict future academic achievement include attention (Duncan et al., 2007) and social and executive functioning skills (Sabol & Pianta, 2012). Research has also shown that academic trajectories in reading and math can be predicted by children's early



approaches to learning (ATL) (Li-Grining, et al., 2010). ATL is comprised of persistence, emotional regulation and attentiveness. Therefore, these early social-emotional, executive functioning, and attention skills play an important role in facilitating the learning process. As such, efforts to improve academic achievement should incorporate elements that address these important areas of need. This is especially important, now, given the national emphasis on academic interventions to improve achievement.

Mindfulness practice in schools may be a feasible, cost-effective solution to nurture the non-academic skills that are needed to facilitate high levels of academic achievement. Indeed, mindfulness programs have been found to impact the previously discussed social-emotional, executive functioning, and attentional skills that are associated with children's academic trajectories (Felver et al., 2014; Flook et al., 2010; Napoli et al., 2005; Schonert-Reichl et al., 2015). As such, mindfulness practice has recently been gaining popularity in research and practice alike. While research has shown a myriad of benefits when mindfulness practices are used in medical and psychological clinics (Kabat-Zinn, 2003; Semple et al., 2010), there is a much smaller subset of studies that have examined whether it works well with children in school settings (Klingbeil et al., 2017). This is especially true of younger, elementary school-aged student populations.

It is clear from examining the research that although mindfulness practices are gaining in popularity and being used in a number of different settings for a variety of purposes, relatively little is still known about their potential benefits when used with children in school settings. As such, the present study examined the impact of a year-long mindfulness program for elementary school students grades PreK-5. Of particular interest in this study was an attempt to gain a better understanding of the feasibility of implementing a teacher-

lead, classroom-based, mindfulness intervention and its potential impact on children's' levels of attention, hyperactivity, and prosocial behavior.

### **Historical and Cultural Context**

In recent years mindfulness-based programs have gained tremendous popularity throughout many disciplines in the West. Among many other settings, they are currently being used in hospitals, schools, corporate offices, and even prisons (Kabat-Zinn, 2003). However, this practice is not new to human history. The roots of mindfulness practice can be traced to ancient Eastern cultures and its presence can be found in myriad spiritual traditions. In fact, it comprises important elements in the practices of Hinduism, Daoism, Buddhism, Judaism, Islam and Christianity (Chimes, 2015). More recently, mindfulness has emerged in Western medicine largely because of the work of Jon Kabat-Zinn (Renshaw & Cook, 2017). In 1979, he created Mindfulness-Based Stress Reduction (MBSR) therapy, which consisted of an 8-week program of intensive mindfulness meditation for chronically ill patients not responding to traditional treatments (Renshaw & Cook, 2017). Since then, mindfulness practice has been gaining popularity in medicine and psychology for treating a variety of conditions from chronic pain to anxiety or panic. Research has suggested that it may also be able to modify attentional networks (Jha, Krompinger, & Baime, 2007). Findings similar to these have contributed to the growing use of mindfulness training as an intervention in schools to help improve student outcomes. As a result of this relatively recent widespread application of mindfulness training, it is important to understand both the definitions of mindfulness used in the literature and the context from which it has emerged in Western science.

One of the most important historical considerations regarding the emergence of mindfulness in the West is the practice's transition from the realm of religion to an applied psychological construct. This secularizing shift is largely credited to the decision of Jon Kabat-Zinn and his team to decouple mindfulness from its spiritual roots in the development of MBSR (Renshaw & O'Malley, 2014). Kabat-Zinn (1990) believed that mindfulness "could be learned or practiced...without appealing to Oriental culture or Buddhist authority to enrich it or authenticate it" (p. 12). With this in mind, he operationalizes mindfulness as a state of consciousness where one "pay[s] attention in a particular way: on purpose, in the present moment, and nonjudgmentally" (Kabat-Zinn, 1994, p. 4). As such, he notes that because mindfulness is about attention, its applications are universal. That is, since being mindful to some degree, moment-by-moment, is an inherent human capacity, the practice of mindfulness is not constrained to any specific spiritual tradition or group of people. Through this lens, mindfulness training interventions can be conducted and evaluated independent of their specific religious or spiritual context. It is important to note here that while one can examine the use of mindfulness removed from its cultural and historical origins, one must also acknowledge and honor these roots. With this comes the recognition that the removal of mindfulness practice from this context may bring unknowable consequences for how it is experienced by and beneficial to the people by whom it is practiced.

### **Mindfulness Operationalized**

The definition of mindfulness posited by Jon Kabat-Zinn is considered the most popular (Renshaw & Cook, 2017), but its core components are echoed in other definitions of the construct throughout the literature. For example, Bishop and colleagues (2004) define mindfulness as "the self-regulation of attention so that it is maintained on immediate

experiences...[with] a particular orientation toward one's experiences in the present moment, an orientation characterized by curiosity, openness, and acceptance (p. 232). Similarly, Dimidjian and Linehan (2003) describe mindfulness as "the intentional process of observing, describing, and participating in reality nonjudgmentally, in the moment, and with effectiveness" (p. 229). More recently, Smalley and Winston (2010) define the construct as a state of consciousness where one observes "physical, emotional, and mental experiences with deliberate, open, and curious attention" (p. 11). In an effort to unify these related definitions of mindfulness, Renshaw (2012) developed a common-core-components model of mindfulness defined as "a state of consciousness that is composed of three distinct subphenomena: *attentive awareness*, a *receptive attitude*, and *intentionality*." In this model, the three core components comprise a "mindfulness molecule," and are considered equally important in creating the overall structure of the mindfulness construct (Renshaw & O'Malley, 2014, p. 246). Therefore, in order for mindfulness to be manifest, all components must be present.

The first core component, *attentive awareness*, centers on the quality and duration of one's interaction with arising stimuli in the present moment. Renshaw and O'Malley (2014) note, "the key feature of this component is not just that awareness is achieved but that it is captivated and focused for a sustained period of time instead of wandering to and fro as usual" (p. 246). The mechanism of change underlying this core component operates by developing familiarity with the true nature of stimuli and their interaction with the broader intersection of stimuli, person, and environment (Brown & Ryan, 2003). With this growing awareness individuals gain more control over automatic reactions to stimuli and are empowered to respond more willfully in the face of engrained habits.

The second core component, *receptive attitude*, relates to the outlook one brings towards stimuli that arise in the moment. Throughout the literature, this outlook is characterized by a combination of curiosity, openness, acceptance, and self-compassion (Siegel, 2007). Specifically, it is the positive and constructive orientation of this receptive attitude that distinguishes it from other approaches to awareness such as active avoidance or rumination. Brown and Ryan (2003) posit that the mechanism of change underlying this core component of mindfulness comes in directing loving kindness towards experiences, especially aversive ones, such that an individual is able to experience symptoms from a more distanced perspective. The effect of this third-person point of view is then the disruption of unhealthy habits that had previously been automatic reactions to a given stimulus in an individual's environment.

The final core component, *intentionality*, describes the purposeful cultivation of *attentive awareness* and a *receptive attitude*. Brown and colleagues (2007) highlight effort and persistence as key features that distinguish *intentionality* from simply recognizing *attentive awareness* or a *receptive attitude* when they occur naturally. Renshaw and O'Malley (2014) acknowledge, "although intentionality is not theoretically connected with a psychological mechanism of change, we conceptualize it as having a commensurable contribution to that of attentive awareness and a receptive attitude in comprising the overall mindfulness construct" (p. 247). Therefore, one key practical application of this delicate balance between the core components is that willpower alone is not expected to be sufficient to achieve and maintain a state of mindfulness. Instead, mindfulness trainings that target, equally, all the core components, and take their respective sustainability into consideration, are more likely to produce lasting growth for the individual in this domain.

## **Mindfulness Applied**

Along with the overlap in definitions of mindfulness practice, the process of applying mindful attention also follows similar steps throughout the literature. For example, in their work with using mindfulness-training to treat adolescents diagnosed with Attention Deficit Hyperactivity Disorder (ADHD), Zylowska and colleagues (2008) operationalized the process of mindfulness practice in three steps: “(a) bringing attention to an ‘attentional anchor’ (usually a sensory input such as breath), (b) noting that distraction occurs and letting go of the distraction, and (c) refocusing or reorienting attention back to the ‘attentional anchor.’” It is important to highlight that this definition is large enough to apply to the variety of “attentional anchors” (i.e. the breath, yoga, sound, etc.) that appear throughout the literature in various mindfulness training programs. Therefore for the purpose of the intervention examined in this study, this operationalization of mindfulness was central to the various practices included in the program.

The cognitive mechanisms, by which mindfulness practice may work to bring about the desired state of being, relate largely to developing awareness of the present moment through direct experience. Kabat-Zinn explains this process as:

Waking up the full spectrum of our experience in the present moment, which, as we engage in mindfulness practice, we rapidly discover is severely edited and often distorted through routinized, habitual, and unexamined activity of our thoughts and emotions, often involving significant alienation from direct experience of the sensory world and the body. (Kabat-Zinn, 2003, p. 148)

As such, through regular practice individuals learn to see past their cognitive distortions and defenses and experience their world in a more authentic way. It is important to note that this

does not necessarily mean challenging one's existing defenses. Instead, it offers a path for individuals to become aware of their defenses as they are, and this awareness, in turn, reduces the pull these defenses have their cognitive and affective functioning.

There are many examples in the literature on mindfulness-based interventions that echo this mechanism of change in emotion regulation brought about by practiced awareness. One more recent description of this process comes from Broderick (2013, p. 13) who explains the processes through which emotion regulation is developed in mindfulness practice:

By facilitating awareness of sensations, thoughts, and emotions; by encouraging decentering from thoughts and feelings in ways that allow for simple observation and less experiential avoidance; by learning to defuse the intensity of emotions and the subsequent drive to act on them automatically; and finally by reducing negative rumination. (Broderick, 2013, p. 13)

It is clear from the literature that one component underlying the process of change through mindfulness practice pertains to adjusting how one relates to his or her own thoughts, feelings, and senses. As such, with repeated practice of non-judgmentally attending to these various inputs individuals may be able to regain some control over their historically automatic responses.

One of the most paradoxical components of adopting mindfulness practice as an intervention is the core tenet of non-striving. As such, mindfulness practice differs from most clinical interventions in its emphasis on non-attachment to outcome (Kabat-Zinn, 2003). This distinction serves to again highlight mindfulness practices as a path to cultivating a comprehensive way of thinking instead of simply being a set of cognitive techniques used to

achieve a goal. Therefore, practitioners of mindfulness need to understand this distinction and abandon the goals that initially drew them to the practice in order to ultimately achieve these goals.

Another noteworthy component of mindfulness practice is its potential applicability to target a broad array of problems. This possible benefit is rooted in the foundational mindfulness practice of working compassionately and non-judgmentally with whatever arises in one's field of awareness. As such, Kabat-Zinn (2003) explains, "mindfulness can always be large enough to include whatever arises if it can be seen, felt and known non-conceptually, directly apprehended through the five senses (including proprioception) and through the mind..." In this way, mindfulness practice entails developing the ability to attend to the direct experience of phenomena as they arise in order to see beneath the surface and reduce their unconscious pull on one's thoughts and feelings. Strengthening awareness of the mind/body connection is a fundamental component of being able to directly experience phenomena as they occur. As one practices this skill of attending with neutral anchors such as the breath, when feeling calm, he or she improves his or her ability to apply the same mindset of compassionate non-judgment to more turbulent emotional and cognitive experiences. Therefore, with regular practice, the potential range of problems that mindfulness practice can be used to target seems to be very extensive.

### **Evidenced Based Mindfulness Programs**

#### **Mindfulness and the Third Wave of Evidenced Based Psychotherapy**

After the introduction of Kabat-Zinn's MBSR, mindfulness-based interventions (MBIs) began to be adopted across applied mental health fields as both a primary approach to treatment, as well as, an adjunct course (Siegel, 2007). Particular to the field of mental health



three of the most widely studied interventions are mindfulness-based cognitive therapy (MBCT; Segal et al., 2002), dialectical behavior therapy (DBT; Linehan, 1993), and acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999). In general, these therapies are classified as a part of the third wave of scientifically based psychotherapy (Ost, 2008). This third wave developed on a continuum that began with behavioral therapy in the 1950s, and ultimately evolved into the second wave during the 1970s with Aaron Beck's development of cognitive therapy. Hayes (2004) specifies, "the third wave of behavioral and cognitive therapy is particularly sensitive to the context and functions of psychological phenomena..." (p. 658).

Segal and colleagues (2002) originally developed MBCT to be a group-based treatment for preventing relapse in depression. The program consists of both formal and informal meditation practices that are taught in weekly two-hour sessions, over the course of eight weeks. These sessions are complemented by a recommended 45 minutes of independent daily mindfulness practice at home. In addition to mindfulness, MBCT incorporates components of cognitive therapy and psychoeducation about depression. Sipe and Eisendrath (2012) explain that this approach differs most notably from cognitive behavioral therapy (CBT) in that "MBCT places little emphasis on changing or alerting thought content; rather, by focusing on participants' awareness of their relationships to thoughts and feelings, it aims to enhance metacognitive awareness" (p. 64). As such, a primary focus of MBCT is targeting how individuals relate to their thoughts and feelings. Segal and colleagues (2002) elaborate that in this process patients "learn to relate differently, more functionally, to depressive symptoms and problematic situations. Frequently repeated,

this creates a store of representations in memory encoding new relationships to depressive experience” (p. 276).

Increased metacognitive awareness also serves as a fundamental mechanism of action in MBCT by empowering patients to adopt an experiential, instead of a narrative, mode of self-reference. Experiential self-reference involves increased neurological activity in the brain regions that promote nonjudgmental awareness of the present moment (Sipe & Eisendrath, 2012). Ultimately, it is then the application of this type of awareness towards the cognitive and affective experiences of depression that allows patients to interrupt patterns of rumination and increase self-compassion. Some of the best evidence supporting the use of MBCT to treat depression comes from a randomized control trial (RCT), which found a 38% reduction in relapse rate with MBCT when compared to treatment as usual (TAU) (Godfrin & van Heeringen, 2011). Research has also found MBCT to be as effective for treating active symptoms of depression and anxiety as CBT, psychoeducation, and pharmacotherapy (Kim et al., 2009; Manicavasgar et al., 2011; Yook et al., 2008).

Hayes and colleagues (1999) developed ACT in response to their belief that traditional behavior therapy needed to grow to consider cognitions as well as behaviors. The treatment’s creators reported that they developed ACT as an “attempt to create a modern form of behavior analysis that could overcome this challenge by adding the principles needed to account for cognition from a functional contextual or behavior analytic point of view” (Hayes et al., 2006, p. 4). Central to this approach is the idea that thoughts and feelings do not need to be changed in order to impact behavior. Rather, therapeutic growth comes through changing the context in which individuals interact with their thoughts and feelings. According to the ACT model, a primary cause of psychopathology occurs when contextual

factors (i.e. language, relational networks, etc.) hijack cognition and cause individuals to act in ways that are unhelpful or contrary to their values (Hayes et al., 2006). As such, the core processes of ACT interact to foster psychological flexibility, which is the ability to connect with the present moment and be aware of cognitions without allowing them to automatically control one's behaviors.

The six core processes of ACT can be organized into two overlapping process categories – mindfulness and acceptance processes, and commitment and behavior change processes. The core processes of *Acceptance* and *Diffusion* fall in the former, *Values* and *Committed Action* fall in the latter, and *Contact With the Present Moment* and *Self as Context* belong to both (Hayes et al., 2006). ACT therapists work with clients to practice and develop the processes of *Acceptance*, *Diffusion*, *Contact with Present Moment*, and *Self as Context* in order to clear the way for increased values-based behaviors. As such, ACT combines cognitive components of mindfulness theories with traditional behavioral elements (e.g. homework related to short, medium and long term behavior change) to promote a new way of relating to contexts characterized by psychological flexibility.

The most compelling support for ACT in the literature comes from the APA Presidential Task Force on Evidenced-Based Practice (2006), which classified it as a strongly supported evidenced-based treatment for chronic pain. Indeed, studies have found ACT to be more successful at increasing pain tolerance in patients than traditional treatments such as CBT, emotional-control, and distraction and relaxation techniques (Feldner et al., 2003; Guitierrez et al., 2004; Hayes, Bisset et al., 1999; Levitt et al., 2004). As a therapeutic approach, ACT has been researched across a wide range of mental and physical health concerns. One study performed with cancer patients compared 12 sessions of ACT and CBT,

and found that patients in the ACT condition showed greater reductions in measures of distress, anxiety, depression, and mental disengagement (Branstetter et al., 2004).

Interestingly, patients in the CBT condition showed an increase on the measure of mental disengagement.

ACT has also been researched as a treatment for addiction. It was found to be more successful than Nicotine Replacement Therapy at reducing relapse in cigarette use after one year (Gifford et al., 2004). Another study conducted with patients in residential treatment for methadone addiction compared ACT to a twelve-step program and methadone maintenance only (Bissett, 2001). Results showed those treated with ACT had a reduction in drug use at six months equal to the twelve-step program group and greater than the methadone maintenance treatment group. It is important to note that given the nature of individual mental health services, most of these studies were conducted on small sample sizes with potential confounding variables, and that results should, therefore, be generalized with caution.

DBT was developed by Linehan (1993) as a comprehensive outpatient treatment program for patients diagnosed with Borderline Personality Disorder (BPD). At the core of DBT theory is the idea that individuals with BPD experience extreme levels of emotional reactivity and physiological arousal when confronted with emotionally challenging situations. As such, DBT attempts to offer a psychosocial approach to teaching individuals with BPD how to cope with these intense surges of emotion (Grohol, 2018). Specifically, this treatment was designed to directly target suicidal behavior, behaviors that interfere with treatment, and destabilizing behaviors. The goals of DBT are accomplished through a multi-modal treatment model that includes weekly individual psychotherapy that focuses on basic

social skills, group skills training that teaches skills from the four DBT modules, telephone consultation to support treatment as needed, and therapist consultation team meetings to support therapist effectiveness (Linehan et al., 2006).

The four DBT modules consist of *Mindfulness*, *Interpersonal Effectiveness*, *Distress Tolerance*, and *Emotion Regulation*. According to Grohol (2018), “the essential part of all skills taught in skills group are the core mindfulness skills.” Within the DBT model, these mindfulness skills are categorized as “what” and “how” skills. The “what” skills are *Observe*, *Describe*, and *Participate*; and they teach patients what to do when practicing mindfulness. The “how” skills are *Non-judgmentally*, *One-mindfully*, and *Effectively*; and they instruct patients on how to practice the core mindfulness skills. Together, these skills help teach individuals a new way of responding to intense emotional swings. As such, DBT utilizes components of mindfulness to help patients develop awareness and acceptance of emotions so that more effective coping strategies can be employed instead of impulsively reacting to one’s environment.

The most compelling support for DBT in the literature comes from the APA Task Force on Evidenced-Based Practice (2006), which classified it as a strongly supported evidenced-based treatment for BPD. Compared to a waitlist control group, individuals receiving a three-month DBT inpatient program have been found to show significant improvements on measures of psychopathology and reductions in self-harming behavior (Bohus et al., 2004). Specifically, patients with BPD in this study showed growth on measures of depression, anxiety, interpersonal function, social adjustment, global psychopathology, and self-mutilation; and 42% attained clinically recovery on a measure of psychopathology. Linehan and colleagues (2006) compared outcomes for individuals

diagnosed to have BPD who received DBT to a control group comprised of Community Based Treatment Experts (CBTE) over the course of two years. Results found that individuals in both groups showed significant improvement on measures of depression, suicidal ideation, and reasons for living. However, compared to the CBTE group the DBT treatment group showed more than double the reduction in suicide attempts, use of emergency services, and treatment dropout. These findings suggest that the added benefits observed in the DBT group are likely due to the specific treatment instead of general factors related to working with expert psychologists.

### **Mindfulness Training for Youth**

Even with the growing usage of MBIs in mental health professions, there is still a dearth of literature pertaining to formalized applications of mindfulness with youth. In their review of the evidenced-based literature, Renshaw and O'Malley (2014) observed, "despite the existence of formalized MBIs...the majority of MBIs conducted with youth (and subsequently published in professional journals) have used idiosyncratic, non-standardized protocols" (p. 248). The researchers found that even though the interventions differed greatly, the MBIs for youth published in the literature did overlap on three key elements. Specifically they were all observed to include formal meditations, psychoeducation about the core components of mindfulness, and metaphorically grounded experiential practices. Renshaw and O'Malley (2014) conclude their review of MBIs by noting that, while mindfulness practices have been collectively shown to have positive effects on a diversity of aspects of youths' well-being, the literature contains no evidence of the relative effectiveness of each of the three key elements.

A closer look at the structural elements of several of the most popular MBIs in use for youth illuminates the diversity of programs currently offered for this population. Paramount in this review is the notion that it is not the practice itself, but the way of thinking that it elicits which acts as a central mechanism of change. As such, there is no one program or specific practice that the literature has shown to be most effective. Another area that varies greatly in the literature is the length and frequency of mindfulness-based training sessions. Some school based programs occur during a physical education class on a weekly basis for eight weeks, while others are implemented bi-monthly and take place over 24 weeks (Napoli et al, 2005). Even within the same type of intervention, length of session and total duration can differ greatly. This is the case with Mindfulness Based Cognitive Therapy for Children (MBCT-C), which has shown positive effects with eight weeks of 40-minute sessions (Bogels et al, 2008) as well as with 12 weeks of 90-minute sessions (Semple et al., 2010). A review of the literature on mindfulness-based interventions clearly shows that there is no standard for session length or program duration.

An additional area that shows great variety across the literature is the content of different mindfulness-based training programs. One of the most popular school-based programs is MindUp (MindUP, 2011). This curriculum is comprised of 12 40-50 minute lessons intended to be taught at a rate of approximately two weeks per lesson in chunks of 10-15 minutes. Additionally, the curriculum recommends that the Core Practice be performed at three time points throughout the day: beginning of the day, after lunch/recess, and end of the day. The curriculum explains that this practice is the signature routine of the program because it helps students regain control over their mental and physical energy. “By concentration on the sensations of a resonant sound and then of their breathing, students calm

their minds and get ready to focus on the next part of their day... the Core Practice supports self-regulation and mindful action” (MindUP, 2011, p. 42). This curriculum most notably differs from other programs in how each lesson teaches brain science in addition to actual mindfulness practices. Furthermore, MindUp provides teachers with strategies for integrating the lessons into their content specific curriculum, such as through book recommendations and guiding questions for discussions of the literature.

The first unit, *Getting Focused*, is comprised of three lessons: *How Our Brains Work*, *Mindful Awareness*, and *Focused Awareness: The Core Practice*. The second unit, *Sharpening Your Senses*, is made up for six lessons: *Mindful Listening*, *Mindful Seeing*, *Mindful Smelling*, *Mindful Tasting*, *Mindful Movement I*, and *Mindful Movement II*. Unit I focuses primarily on introducing students to some of the brain physiology that is involved in emotional regulation and the concept of mindful attending. Additionally, Unit I includes the teaching of the Core Practice in which students learn to “Pause. Listen. Breathe.” in response to a resonating note played on an instrument by their teacher. Next, Unit II aims to extend the students’ knowledge of brain functioning and prioritizes experiential learning of the relationships among the senses, moving bodies and cognitions (MindUP, 2011, p. 14).

Each lesson in the MindUP curriculum follows the same format. First *Introduction to the Lesson Topic* identifies and explains the subject of the lesson and frames why it is important. Second, *Linking to Brain Research* explains how each lesson relates to the neuroscience. Third, *Clarifying for the Class* provides teachers with guidelines for making brain research concepts accessible to students at various grade levels. Fourth, *Getting Ready* identifies what the lesson entails as well as learning goals for the lesson. This section also includes, for teachers, a list of materials and resources required. Fifth, *MindUP Warm-Up*



helps the students prepare for the Engage, Explore, Reflect part of the lesson activity by introducing and discussing subject matter in an easygoing, open-ended way that relates content to students' lives. Sixth, *Leading the Lesson* provides teachers with a step-by-step approach that engages students in the inquiry, helps them explore the topic, and encourages them to reflect on and discuss their insights and experiences. Finally, *Connecting to the Curriculum* provides teachers with alternative approaches to content by offering specific opportunities for students to apply their newly learned mindfulness principals to the areas of language arts, math, social studies, science, health, physical education, the arts, and social-emotional learning. This section also includes journal writing activities and discussion questions to go along with suggested literature for the class. (MindUP, 2011, p. 14-15).

While this program centers around classroom based instruction, other programs focus on skill building through mindful movement. For example, another school-based mindfulness training program created and run by the Holistic Life Foundation (HLF), that has been shown to be effective, involves teaching yoga to inner-city students through 45-minute sessions four days per week, for 12 weeks. With the challenges urban youth face in mind, the program's creators reported "the program aims to counter psychological and neurocognitive effects of chronic stress exposure by cultivating a state of calm attention and awareness" (Mendelson et al., 2010, p. 987).

The HLF mindfulness intervention revolves around three core components: yoga-based physical activity, breathing techniques, and guided mindfulness practices. The yoga component includes both postures and series of movement exercises. Along with each pose, students are taught about the various health benefits of the practice. The breathing component leads students through beginner to advanced breathing exercises. Each of these exercises is

selected with the purpose of training the students to use their breath to center and calm themselves. Finally, the guided meditation component closes each lesson. During this time, students are instructed to lie on their backs with their eyes closed while attending to a specific focal anchor for several minutes. The program's creators explain "the movement, breathing, and mindfulness component of the class were each designed to enhance the youths' capacities for sustained attention, promoting greater awareness of cognitive, physiological and bodily states and how to regulate those states" (Mendelson et al., 2010, p. 989). To reinforce this goal, lessons also include a brief discussion on topics such as identifying stressors and using mindfulness to respond to stress before beginning the guided meditation. Finally, students in the program are encouraged to practice their newly learned skills beyond the walls of the classroom.

Alternatively, yet another evidenced based curriculum – Learning to Breathe (L2B; Broderick, 2013) - recommended by some school districts provides teachers with a choice of either a six- or 18-session program based on the developmental levels of their students. Each of these programs is organized around the same six themes that comprise the BREATHE acronym: Body, Reflections (Thoughts), Emotions, Attention, Tenderness, and Habits with an overall program goal of Empowerment/gaining an inner Edge. The manual highlights that it is this goal that distinguishes L2B from other programs through its underlying effort to "empower [students] as they grapple with the psychological tasks of adolescence" (Broderick, 2013, p. 13). Additionally, the program outlines five specific goals: 1) To provide universal, developmentally appropriate mindfulness instruction that fosters mental health and wellness, 2) To enhance capacity for emotion regulation, 3) To strengthen attention and support academic performance, 4) To expand the repertoire of skills for stress

management, and 5) To help students integrate mindfulness into everyday life (Broderick, 2013, p. 12).

The program's creator valued a format that was "interactive and developmentally appropriate;" and explained that younger children generally respond better to shorter, more frequent sessions. Therefore, the longer version "essentially expands elements of the six-session version and allows for more in-class practice, reinforcement of concepts, and activities" (Broderick, 2013, p. 17). Rooted in these developmental differences, the six-session program is recommended for older adolescents (grades 9 or 10-12) and the 18-session program is recommended for younger students (grades 5-8 or 9). The six-session version is designed to be taught in six 45-minute lessons with no more than two lessons per week. The 18 lessons comprising the longer version take approximately 15-minutes each to complete and are intended to be taught at a pace of one to three lessons per week. Each lesson in the L2B curriculum includes three elements: 1) Review/presentation of the lesson theme, 2) Activities that facilitate understanding of the lesson theme, and 3) In-class mindfulness practice (Broderick, 2013).

The L2B curriculum was developed largely on the theoretical foundations of several evidenced-based mindfulness therapies. The manual credits "acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999), mindfulness-based cognitive therapy (MBCT; Segal, Williams & Teasdale, 2002), and dialectical behavior therapy (DBT; Linehan, 1993)" as influential in the L2B approach to developing emotion-regulation skills (Broderick, 2013, p. 13). While these therapeutic frameworks are outside the scope of this school-based mindfulness intervention review, they deserve to be briefly mentioned here. Specifically, the growing use and resulting body of literature on these mindfulness-based

therapies support the underlying notion that mindfulness practice presents one possible pathway with growing evidence for eliciting social-emotional growth in youth.

### **Impact of Mindfulness on Attention**

Attentional control is a fundamental skill that lays the foundation for future learning to occur. In fact, longitudinal analysis has found measures of attention at school entry to significantly predict later academic achievement (Duncan et al., 2007). The ability of students to focus their attention on their lessons during the school day is a major component of academically engaged behavior. Reviews of the research reveal a positive correlation between behavioral engagement and academic achievement across elementary, middle and high school levels (Fredricks et al., 2004). Conversely, inattention has been found to predict negative academic consequences. An extensive longitudinal study on early school behavior also discovered a relationship between ratings of behavioral engagement in first grade and high school drop out (Alexander et al., 1997). These studies highlight the importance of attention in educational settings and suggest that interventions aiming to improve attention might be useful at improving a variety of other academic and developmental outcomes for students.

One of the key elements of mindfulness practice involves learning to focus one's attention. As such, it is no surprise that the literature on mindfulness interventions contains myriad findings of improved attention. Indeed a recent meta-analysis of group-based MBIs for youth found a small-medium effect size on measures of attention ( $k = 10$ ,  $n = 1243$ ,  $g = 0.29$ ) (Klingbell et al., 2017). The broad construct of attention can be better understood by examining its more specific situational components. To achieve this goal, it is important to consider the types of attentional measurements used in the literature when reporting the

effects of mindfulness practice on attention. One main distinction here comes between survey report measures and neurocognitive task performance measures. While the former can shed important light on possible attentional problems, the latter broadens the picture by illuminating some of the mechanisms of attentional functioning. This review begins with an examination of survey reported measures of attention found in the mindfulness literature.

### **Observable Attentional Outcomes**

When evaluating reported survey measures, it is important to consider the various report sources. A review of the literature reveals findings of improved attention that span a variety of report sources and measures. In a recent evaluation of an intervention using Mindfulness Based Cognitive Therapy for Children (MBCT-C), Semple and colleagues (2010) found significant reductions of attention problems through parent report. Significant improvements in attention problems as a result of mindfulness interventions have also been found through student self-reported (Bogels et al., 2008) and teacher reported (Napoli et al., 2005; Schonert-Reichl & Lawlor, 2010) measures. It is clear that the changes in attentional control that come from mindfulness practice are evident both internally and observationally. Furthermore, these gains seem to be generalized across home and school settings.

In addition to improvements across settings, gains resulting from mindfulness practice have been observed through survey report measures across the age span of childhood and adolescence. Significant decreases in attention problems were observed after a mindfulness intervention was conducted for students in lower elementary school (Napoli et al., 2005). Similarly, this finding can be seen in teacher rating scales of attention for upper elementary and middle school students receiving mindfulness interventions (Schonert-Reichl & Lawlor, 2010; Semple et al., 2010). Self-reported measures from youth ages 11-18 have

also shown significant improvement in sustained attention (Bogels et al., 2008). These findings in the literature support mindfulness practice as a potentially effective intervention to improve attention problems in students of all ages.

Another theme that emerges in the literature on the impact of mindfulness practice on attention is the maintenance of gains over time. In fact, these gains have been found throughout survey-reported measures at eight-week (Bogels et al., 2008) and 90-day (Semple et al., 2010) follow-ups after the interventions were completed. Furthermore, these findings are representative of both self-reported and observer-reported measures. Additionally, the maintenance of attentional gains was observed after a 12-week (Semple et al., 2010) and an eight-week intervention (Bogels et al., 2008), comprised of 90-minute sessions of MBCT. This indicates that it is teaching of the practice, itself, not the duration of the intervention, that fosters the long-term benefit of improved attention. These findings suggest that mindfulness practice is an effective way to promote lasting improvement in students' attentional control.

### **Neurocognitive Task Performance Outcomes**

Research has found that mindfulness interventions can have a positive impact on neurocognitive task-performance (Napoli et al., 2005; Zylowska et al., 2008). These types of measures are typically timed and often present a variety of conditions with differing rules for the subjects to follow. As such, they provide important insight into some of the cognitive mechanisms of attention. In one study, Zylowska and colleagues (2008), found growth on these measures as a result of mindfulness training with a mixed adult and adolescent sample. These authors utilized, among others, four different task-performance measures at pre- and post-test to understand the effect of an 8-week mindfulness-training program. Results

indicated significant differences on measures of attentional conflict, set shifting and selective visual attention. In considering the limits of mindfulness practice, also of note here, are non-significant findings on the attentional measures of alerting and orienting (Zylowska et al., 2008). A review of the significant results follows here, while an examination of the non-significant findings can be found in the section titled “Non-significant results and future directions.”

Attentional conflict can be understood as how well someone can manage prioritizing among competing tasks. A classic example of this is the Stroop task (Golden, 1978), which compares the difference in time it takes a subject to accurately name the observed color of a series of color words. The task becomes increasingly difficult with incongruent conditions where the observed colors of the words do not match the color the word denotes. Results from paired-sample *t*-tests found a highly significant ( $p < .01$ ) difference on this measure before and after the mindfulness intervention, with a small to medium effect size - Cohen’s  $d = -.38$  (Cohen, 1977; Zylowska et al., 2008). This result seems to suggest that mindfulness training may be effective at improving one’s ability to prioritize among competing tasks.

Further evidence of this impact on attentional conflict comes from the Conflict subtest of the Attention Network Test (ANT; Fan & Posner, 2004). Results from this computerized task performance measure indicated a highly significant difference ( $p < .01$ ) and a very large effect (Cohen’s  $d = 1.01$ ) on attentional conflict as a result of the same mindfulness intervention (Zylowska et al., 2008). When the results of these two measures are taken together, it seems likely that mindfulness interventions may be effective at increasing attention, in part, by improving the ability to manage attentional conflict.

Set shifting can be understood as the ability to hold in one's mind multiple sequences at the same time and switch between them accurately. A classic measure of this comes in the form of the Trail Making Test (TMT; Reitan, 1979). Part B of the TMT measures set shifting by presenting the subjects with 25 circles labeled with either a number or letter and asking the subjects to draw a line that connects the circles in an alternating numeric and letter ascending pattern (Reitan, 1979). Improvements as a result of mindfulness training on Part B of the TMT were highly significant ( $p < .01$ ) and indicative of a medium effect size - Cohen's  $d = .60$  (Zylowska et al., 2008). It is important to note that the cognitive demands of set shifting share a lot of overlap with those required for executive functioning. Therefore, these results indicate that mindfulness interventions may be effective at improving attention, in part by strengthening the cognitive mechanisms of set-shifting and, perhaps, even those utilized in executive functioning.

Selective visual attention can be understood as the ability to locate and identify target stimuli that are presented visually. Part A of the TMT measures visual attention by asking subjects to draw a line that connects a series of 25 numbered circles in ascending order without lifting their pencils. Differences in times on this task before and after the mindfulness intervention were highly significant ( $p < .01$ ) and indicative of a medium effect size - Cohen's  $d = .66$  (Zylowska et al., 2008). Despite this significant finding, one possible limitation of this assessment is the impact of motor differences between subjects. Therefore, this result alone should not be used to draw conclusions about the effectiveness of mindfulness at improving selective visual attention.

Further evidence for the potential relationship between mindfulness practice and selective visual attention can be seen in a study conducted by Napoli and colleagues (2005)



that evaluates the impacts of 12, bi-monthly mindfulness training sessions for elementary school students. This study is noteworthy because the authors evaluated selective visual attention with the Test of Everyday Attention for Children (TEA-Ch; Manly et al., 2001), which uses two subtests to measure and adjust for an individual's motor time required to complete the task. After controlling for subject motor differences, results indicated a highly significant ( $p < .001$ ), medium effect size - Cohen's  $d = .60$  - for the mindfulness program on selective visual attention. It is interesting to note that the effect size is similar to that found through the TMT Part A measure of visual attention. When taken together, the findings of these two studies seem to suggest that mindfulness training may impact overall attention, in part by improving control over selective visual attention.

### **Mindfulness and ADHD**

A review of the literature reveals an added benefit of mindfulness practice, specifically, for students diagnosed with ADHD. In school wide interventions, subgroups of students diagnosed with ADHD have been found to show greater reductions in attention problems compared to their non-ADHD peers (Semple et al., 2010). Indeed, this theme has appeared in studies examining the impact of mindfulness with samples exclusively comprised of individuals with ADHD. Results from a computerized test of attention, showed that individuals with ADHD were found to have mean post-training attention scores comparable to their non-ADHD peers. Furthermore, 78% of the individuals in the study reported a reduction in their overall ADHD symptoms. 38.9% of these individuals also reported clinically significant improvement as a result of the mindfulness training (Zylowska et al., 2008). These results strongly support mindfulness training as a potentially effective treatment for improving attention in individuals with ADHD.

## **Non-Significant Results and Future Directions**

To best understand the potential impact and limits of mindfulness training on the various components of attention, it is important when evaluating these findings that consideration be given to both significant and non-significant results. It was noted earlier that Zylowska and colleagues (2008) found non-significant results on the attentional measures of alerting and orienting. A comparison of these results with other non-significant findings on measures of sustained attention (Napoli et al., 2005) highlights a potential limit of mindfulness training that warrants further exploration.

Studies have examined the influence of “alerting,” which is defined as the ability to maintain a vigilant state of preparedness. Results from the computerized ANT Alerting subtest yielded non-significant results ( $p = .11$ ) after implementation of an 8-week mindfulness program (Zylowska et al., 2008). Interestingly, this non-significant relationship also appears in measures of sustained attention ( $p = .35$ ) from three subtests on the TEA-Ch (Napoli et al. 2005). The consistency of these results across different measures of similar constructs contradicts other sources in the literature that suggest mindfulness practice does improve sustained attention (Bogels et al., 2008). This inconsistency could indicate that one limit of the impact of mindfulness training on attention may be in the domain of sustained attention. Future studies should further examine this relationship with a diverse array of measures and report-sources relating to the construct of sustained attention.

Orienting can be understood as the ability to select a stimulus among multiple inputs. The non-significant finding on the ANT Orienting subtest deserves examination because it seems to contradict other significant findings on the similar construct of selective visual attention (Napoli et al., 2005). Noteworthy here is the nearly significant ( $p = .08$ ), medium

effect size – Cohen’s  $d = -.46$  (Zylowska et al., 2008). It is possible that with a larger sample size this relationship would become significant. Indeed, one limitation of the study in question is its relatively small, clinical sample ( $N = 24$ ). As such, future research should strive to attain large samples when examining the impact of mindfulness training on orienting and similar constructs. Specifically, replication is needed with the ANT Orienting subtest to better understand the impact of mindfulness training in regards to this domain.

### **Impact of Mindfulness on Executive Functioning/ Impulsivity**

Other important direct impacts of mindfulness practice can be found in the domains of impulsivity and executive functioning. Research examining the executive functioning of elementary school students who had received a mindfulness intervention revealed a significant difference in behavioral assessments of executive functioning (Schonert-Reichl et al., 2015). Specifically, these students exhibited shorter reaction times on computerized switch trials tasks and incongruent conditions than did their control peers, who did not receive mindfulness training. These measures all require cognitive flexibility in order to remember and appropriately apply multiple rules. As such, their results indicate that mindfulness practice is an effective means of improving executive functioning in elementary school students.

Additionally, the literature supports a connection between baselines levels of executive functioning and changes in that domain as a result of mindfulness practice. In a study involving an eight-week mindfulness program for lower elementary school students, Flook and colleagues (2010) found that students’ starting levels of executive functioning interacted with the intervention to predict changes in post-test levels of executive functioning. Specifically, students who exhibited low levels of executive functioning at the

start of the intervention were found to show greater improvement in behavioral regulation, metacognition and overall global executive control compared to the control group. In fact, on teacher report measures, this interaction was calculated to account for 20.4% of the variance across the three different executive functioning outcomes used. On parent report measures, this interaction was found to account for 16.2% of the variance across these same outcome measures. These results clearly support mindfulness as an effective intervention to improve levels of executive functioning for students with pre-existing low levels in this domain. Additionally, since this trend is apparent on both parent and teacher report measures, it implies that the impact of mindfulness practice on executive functioning can generalize across home and school settings.

A review of the literature on mindfulness practice and its impact on executive functioning also reveals a variety of changes in behaviors associated with executive functioning. For example, increased academic engagement and decreased off task behavior were observed after only a five-day mindfulness intervention (Felver et al., 2014). These observable academic behaviors require the cognitive control that is rooted in executive functioning. Other areas where this appears in the literature relate to goal setting and self-control. Bogels and colleagues (2008) conducted an eight-session MBCT intervention with 11-18 year olds diagnoses with ADHD, ODD/CD, or ASD. Their findings revealed significant improvements in self-control with a large effect being detected on youth reported measures of self-control. Furthermore, both parents and youth participating in the study reported significant improvement in the attainment of personal goals. This finding was observed on the children's and parent's ratings of their children's goals, as well as on parents' ratings of their own goals. Additionally, the fact that these results occurred with a

clinical sample implies that mindfulness may serve as an effective component of treatment for improving executive functioning in individuals with these above-mentioned specific diagnoses. The measured changes on these markers of cognitive control suggests that mindfulness practice may be an effective intervention for targeting improvement in the executive functioning of both clinical and non-clinical youth alike.

Impulsivity is a domain that has the potential to be affected by mindfulness. The emerging literature base on MBIs and impulsivity in youth is, unfortunately, limited because the outcome domains lack important nuance. A recent meta-analysis of group-based MBIs for youth found that most studies tend to include measures of hyperactivity or impulsivity under the broader category of externalizing problems (Klingbeil et al., 2017). As such, even though the meta-analysis observed an overall small effect of MBIs on measures of emotional/behavioral regulation ( $k = 16, n = 1404, g = 0.32$ ), this finding does not distinguish between hyperactivity/impulsivity and the other subdomains in this construct (self-control, emotional and behavioral control, impulse control, emotional arousal, emotional awareness, and emotional reactivity). For this reason, Klingbeil and colleagues (2017) “encourage continued research on MBIs to allow for more refined outcome domain analyses...[to] become increasingly specific-investigating treatment effects on common sub-outcomes of interest within the broader outcomes domains...” (pg. 97). Therefore, it is clear that more nuanced research is needed to support the emerging literature base on the impact of MBIs on impulsivity and hyperactivity in youth.

### **Impact of Mindfulness Emotional Regulation/ Well-Being**

Gains in emotional regulation are another direct benefit of mindfulness practice that draws support from the literature. Specific to school-based mindfulness programs, Renshaw

and O'Malley (2014) conclude "mindfulness appears warranted to play a minor, complementary role in supporting the well-being of students and their caregivers in the schools, serving as both an outcome of interest...and/or an approach to intervention..." (pg. 254). Exploration of the literature shows these results across grade levels. Mindfulness interventions at both the elementary and middle school levels have resulted in significant, large effects on increases in social-emotional competence and emotional control (Schonert-Reichl et al., 2015; Schonert-Reichl & Lawlor, 2010). Additionally, similar results have been observed with mindfulness interventions at the high school level (Broderick & Metz, 2009). Furthermore, student scores on measures of emotional regulation have supported mindfulness practice as effective in reducing total difficulty in emotional regulation, lack of emotional awareness and lack of emotional clarity (Broderick & Metz, 2009). These results shine a light on some of the underlying mechanisms of emotional regulation that are impacted through mindfulness interventions. Moreover, the pattern of these findings across multiple grade levels suggests that these practices can be appropriate for students of all ages.

The importance of improving emotional regulation is significant for all students. However, at-risk urban youth often present a greater need to regulate their emotional state in the face of the many traumas they encounter daily. This population has been identified as an ideal recipient for mindfulness practice to target improvement in emotional regulation. Decreases in rumination, intrusive thoughts and emotional arousal have all been found as a result of a mindfulness intervention with these at-risk students (Mendelson et al., 2010). Given both the persistent and acute traumas that these students encounter, the applications of improvement in these components of emotional regulation span virtually all aspects of this vulnerable population's lives.

Another example of this in the literature comes in work with homeless youth (Viafora et al., 2015). Researchers found that a subgroup of homeless youth receiving a mindfulness intervention along with their non-homeless peers reported greater levels of emotional well-being as a result of the mindfulness practice. While all students reported significant positive outcomes, the homeless youth were more likely to use mindfulness themselves outside class when dealing with difficult emotions, recommend it to their friends, and enjoy the program more (Viafora et al., 2015). For any intervention to be successful, the recipient must willfully engage in the treatment. Therefore, these results indicate that the high level of buy in for at-risk students, as well as, the effectiveness of these programs in improving their emotional regulation, make mindfulness practice a potentially effective intervention to foster emotional regulation skills for this important and vulnerable population of youth.

The improvement in well-being described with homeless youth has also been seen in clinically referred middle and high school students who exhibited externalizing symptoms as a results of ADHD, ODD/CD or ASD (Bogels et al., 2008). This population showed significant improvements in subjective happiness and parent reported child quality of life. Furthermore, these gains were maintained at an eight-week follow-up (Bogels et al., 2008). The stability of these improvements in the clinical population strongly supports mindfulness as an effective tool for helping these students cope with externalizing symptoms. Additionally, typically developing peers have been observed to demonstrate similar gains on measures of well-being. Increases in optimism and gains in self-reported well-being have been found to result from mindfulness interventions for all students (Schonert-Reichl et al., 2015; Schonert-Reichl & Lawlor, 2010).

The evidence for the reduction of externalizing behaviors and increase in the components of well-being suggests that mindfulness may be an appropriate intervention for clinical populations as well as their typically developing peers.

Another interesting finding present in the literature on mindfulness regards the interaction between emotional regulation and well-being. Outcomes of well-being have been found to have increased the most for students with the greatest baseline levels of rumination. Van de Weijer-Bergsma and colleagues (2014) found that elementary and middle school students who reported medium or high levels of rumination exhibited a greater decline in analyzing emotions as a result of the program than did students who reported low levels of rumination at pre-test. This evidence supports the previously described findings that mindfulness interventions may be more effective for the most at risk students than those in the general population. Furthermore, significant increases were detected for all students on differentiating emotions, verbal sharing of emotions, not hiding emotions, bodily awareness, and sense of coherence (Van de Weijer-Bergsma et al., 2014). Growth on these mechanisms of emotional regulation can serve to open a window into how mindfulness practice may be targeting overall emotional regulation. It is important to understand these mechanisms such that future mindfulness interventions targeting emotional regulation and well-being can better promote positive growth in these domains.

An important limitation of note regarding mindfulness as a method of intervention for youth is that there is no evidence to suggest it is more impactful on well-being than other more well studied indicators of positive-psychological functioning in youth (e.g. social skills trainings, character strength development interventions). Due to this, Renshaw and O'Malley (2014) recommend "practitioners should generalize individualized MBIs into school-based



practice with caution and not use them as the sole or primary therapeutic technique” (pg. 254). In the spirit of this recommendation, and especially given the current surge in popularity of mindfulness in popular culture, it is important to remember that ability to be mindful is but one part of an intricately interwoven and constantly expanding understanding of psychological well-being. Furthermore, when considering a multi-tiered framework of support in schools, the fact that all students learn differently should inform the continual evaluation and integration of mindfulness into the existing empirically supported skills training curricula for youth.

### **Impact of Mindfulness on Problem and Prosocial Behavior**

Another important effect, found in the literature, of mindfulness interventions with youth is the impact they have on social behavior. One of the best ways to measure this prosocial or problem behavior is through peer reports. Since, by definition, this behavior occurs in social settings, one’s peers provide an important insight into an individual’s prosocial or problem behaviors. On peer-nominated measures, a nearly one-quarter reduction in aggressive behaviors has been observed after the implementation of mindfulness training (Schonert-Reichl et al., 2015). Furthermore, students were found to rate their peers as significantly less likely to break rules or start fights after completion of the program. These results support mindfulness as one effective way to reduce the problem behavior of aggression in youth.

In addition to decreases in problem behavior, significant increases in prosocial behavior have also been observed via peer-report measures. In fact, a nearly one-quarter gain in this desired behavior was observed in upper elementary school students. Specifically, significant differences in prosocial behavior were seen in the areas of sharing,

trustworthiness, helpfulness and taking others' views into consideration (Schonert-Reichl et al., 2015). This gain in prosocial behavior was also seen in self-reported measures. This evidence suggests that, in addition to reducing problem behaviors, mindfulness interventions may also be effective at promoting prosocial behavior in youth.

Teachers provide another valuable source of information for evaluating social behavior. As a result of their role in students' lives, teachers are often heavily exposed to a child's range of social behaviors throughout the course of a school day or year. Indeed, the reduction in problem behavior as a result of mindfulness practice has also been observed via teacher report. Specifically, significant decreases have been found on teacher-reported measures of aggression and oppositional or dysregulated behavior (Schonert-Reichl & Lawlor, 2010). Since a teacher's exposure to his or her students is often similar to that of a child's peers, mainly during the school day, it makes sense that a decrease in problem behavior has been observed across both peer and teacher reported measures. In total, these findings suggest that mindfulness interventions likely present one effective option for reducing problem behavior observed at school.

To get a broader picture of social behavior at home, parents provide an important source of additional information. The research shows parents of upper elementary and middle school students have echoed the trend found by peer and teacher reports of problem behavior (Semple et al., 2010). While significant, medium-sized reductions in behavior problems were found for all students on parent reported measures, the results from two subgroups shed light on mindfulness as an effective intervention for clinical samples. Semple and colleagues (2010) found a significant reduction in behavior problems for one subgroup of students diagnosed with ADHD and another diagnosed with clinical anxiety. These results suggest

that in addition to helping reduce problem behavior in non-clinical youth, mindfulness practice may be an effective component of therapy for children suffering from ADHD or clinical levels of anxiety.

Youth who are at risk of expulsion present another subgroup of students for whom mindfulness interventions present an opportunity to reduce problem behavior. Singh and colleagues (2007) conducted an intervention for a group of middle school students who were facing just this risk. Interestingly, they found that aggressive behavior initially decreased only minimally during the mindfulness training. However, in the 25 weeks after the training, aggressive behaviors decreased at a substantial rate. Exploration of this result highlights an important element of successful mindfulness practice. Students in the study reported that they only practiced mindfulness sporadically outside formal training sessions until some of the benefits began to emerge. At that point, students reported practicing more consistently. It seems that regular practice outside training is a key driver in the observed reductions to aggressive behavior. After the intervention, all students were able to regulate their problem behavior to levels that allowed them to graduate with their peers. Since traditional responses to problem behavior at that level include suspension and other practices which remove a student from his or her educational setting for a prolonged period of time, mindfulness may present an alternative discipline practice to help students effectively reduce high levels of problem behavior.

An important consideration for accurately interpreting results of prosocial behavior in youth is to keep in mind, that even without any treatment, as children age and mature, prosocial behavior is expected to increase. A review of the literature shows that children are expected to demonstrate an increase in prosocial behavior beginning around the ages they

enter pre-school and continuing until early adolescence (Carpendale & Lewis, 2004). The timing of this trajectory is thought to be bookended by the development of more sophisticated thinking related to the self and others and then the introduction of hormones and other physiological changes at the onset of puberty (Hammond & Brownell, 2015). Therefore, it is important for researchers examining mindfulness-based interventions with youth and prosocial behavior to consider the age of their population and this developmental trajectory when interpreting any potential observed changes in this domain.

### **Mindfulness and Mental Health**

#### **Anxiety**

Whether an individual child suffers from clinical anxiety or not, the ability to cope with anxiety is an important skill for all students. A review of the literature supports mindfulness practice as one effective method for reducing the symptoms of anxiety. One common anxiety-provoking situation that most students encounter regularly is test taking. For some, test anxiety can be severe enough to qualify an individual for special education services. A review of test anxiety specific measures used in the evaluation of mindfulness interventions shows significant mean differences in scores at follow-up between students who practiced mindfulness and those who did not (Napoli et al., 2005). It is clear that regardless of clinical diagnosis, mindfulness practice can be an important tool to combat daily anxiety for some students.

Beyond specific anxiety provoking incidents, pervasive anxiety levels can accumulate to impact an individual's daily functioning. Research on mindfulness interventions that target symptoms of anxiety show a significant difference on the level of general anxiety symptoms between pretest to follow-up and baseline to pretest measures (Van de Weijer-Bergsma et al.,

2014). This finding supports mindfulness practice as a potentially effective means of reducing overall symptoms of anxiety. Furthermore, the research base also shows support for reduction in state anxiety as a result of mindfulness programs administered through university clinics (Semple et al., 2010). Interestingly, this analysis also shows a 50% reduction in the number of subjects who reported clinically elevated levels of anxiety between pretest and posttest. Therefore, it seems evident that mindfulness practice promotes reductions in anxiety for both clinically and non-clinically anxious youth.

An analysis of mindfulness-based practice with strictly clinical samples reveals similar results that were indicated in studies with both clinically and non-clinically anxious individuals. A review of work with the former shows that these clinically anxious youth who received mindfulness training exhibited significant improvements over time in both state and trait anxiety (Biegel et al., 2009). Furthermore, these results held when the clinical sample that received mindfulness training was compared to a group of their peers who received traditional psychotherapy during the same time frame. This finding highlights mindfulness based psychotherapy as a potentially effective treatment for youth suffering from clinical levels of anxiety. Overall, it is clear that mindfulness interventions present evidenced-based potential pathway for treating the symptoms of anxiety in youth.

## **Stress**

One fundamental component of mindfulness practice is strengthening one's awareness of the connection between mind and body. Stress is a psychological experience that is commonly associated with physical symptoms. As such, mindfulness interventions provide an opportunity to reduce the symptoms of stress by heightening awareness of this connection. An area of the literature that addresses this connection can be found in studies

evaluating the impact of mindfulness interventions on the somatic experiences of stress. One such study found a significant reduction of somatic complaints based on the frequency of mindfulness practiced outside class (Broderick & Metz, 2009). Specifically, differences in scores were detected for high school youth who reported practicing mindfulness for four or more days outside class as compared both to those who practiced fewer than four times a week outside class and those who practiced only during class. This finding suggests that the frequency of mindfulness practice significantly impacts the effectiveness of the practice to impact the somatic experiences of stress.

In addition to the physical sensations of stress, the experience also carries with it psychological consequences. As such, it is important for interventions that target stress in youth to address both the somatic and psychological symptoms of stress. Indeed, significant decreases in self-reported levels of perceived stress and somatic distress have been found after the implementation of mindfulness training with high school aged students receiving outpatient psychiatric care (Biegel et al., 2009). Just as with other components of mental health, stress can impact children at both clinical and non-clinical levels. Therefore, evidence found in the research here supports mindfulness based therapy as a potentially effective treatment for some students in reducing both the physical and psychological symptoms of stress.

As previously described, one foundational aspect of mindfulness practice targets increasing an individual's awareness of his or her body. A recent study by Van de Weijer-Bergsma and colleagues (2014) sheds light on the connection between psychological stress and bodily awareness. These researchers found a pattern of children who exhibited higher frequencies of rumination also demonstrated higher levels of bodily awareness. Additionally,

students who reported rumination at medium or low levels showed larger gains in bodily awareness than did their peers as a result of lower starting levels of bodily awareness. Taken in the context of the literature, this finding may suggest that students who began with higher levels of rumination demonstrated greater bodily awareness because the somatic symptoms associated with reliving stress through psychological rumination forced their bodily sensations more frequently into their awareness. It is clear that mind and body are strongly connected when it comes to the experience of stress. It is also evident that mindfulness based practice presents a potential evidenced-based method of targeting both somatic and psychological symptoms of stress in youth.

## **Depression**

Similar to other mental disorders, depression exists on a spectrum. While some individuals show clinical levels of depression in terms of severity and duration, it is quite normal for almost everyone to experience depression at some point in his or her life. A review of the literature suggests that mindfulness practice may be an effective intervention for reducing the symptoms of depression. One example comes from a two-week intervention comprised of 10 15-minute sessions for upper elementary school aged children (Liehr & Diaz, 2010). Analysis of depressive measures for these non-clinical youth reveals significant reductions in depressive symptoms compared to a group of their peers who received health education instead of the intervention. This study is particularly interesting because often times health education class is the only place students may learn about depression and other mental illness. Therefore, the finding that a brief intervention did a better job of reducing depressive symptoms than a traditional health course suggests that mindfulness lessons could

be feasibly incorporated into existing health education curricula to promote positive outcomes for youth.

Another piece of evidence for incorporating mindfulness practice into existing school structures comes from research in Canada, where Social Responsibility Programs are considered one of four foundational performance standards for students in British Columbia ([www.bced.gov.bc.ca/perf\\_stands/social\\_resp.htm](http://www.bced.gov.bc.ca/perf_stands/social_resp.htm)). In a recent study comparing the effectiveness of this Business as Usual (BAU) condition with another group of students who received mindfulness training showed a significant decrease in depressive symptoms for these students compared to their BAU peers (Schonert-Reichel et al., 2015). In conjunction with the findings on the effectiveness of mindfulness practice compared to traditional health courses, these results support the potential inclusion of mindfulness into public education settings. This notion is supported by the consistent findings that mindfulness practice can reduce depressive symptoms and the fact that these practices can be implemented, non-intrusively, into existing course plans.

When examining the effectiveness of any intervention, it is important to consider whether that specific intervention may or may not function similarly for individuals in different nations. Regarding depressive symptoms, significant decreases have been observed as a result of mindfulness interventions in non-clinically depressed groups of Canadian upper elementary school (Schonert-Reichl et al., 2015), Caribbean and Central American upper elementary school (Liehr & Diaz, 2010), and American high-school (Zylowska et al., 2008) aged students. The stability of these findings across the Americas suggests that the depressive mechanisms targeted by mindfulness practice may be similar for youth of many other nations as well. Indeed similar findings have appeared in the literature with Australian youth (Joyce



et al., 2010). It is clear from this body of research that the experience of depression in youth is common across nations; and that mindfulness seems to be an effective way to target depressive symptoms in youth of many different nationalities.

In addition to these findings emerging across nations, they also seem to be consistent for both clinically and non-clinically depressed individuals. In a study examining these two populations, the number of students who reported either borderline or abnormal classifications for symptoms of depression showed a significant decrease after the implementation of a mindfulness intervention (Joyce et al., 2010). The reduction of depressive symptoms to clinically insignificant levels supports mindfulness practice as a potentially effective tool to target depression in youth. Research on adults can also shed light on the relationship between mindfulness practice and depression. Indeed, significant decreases have been observed in overall scores of depression for adults and youth receiving mindfulness training, with time in practice leading to greater reductions in depressive symptoms (Biegel et al., 2009; Branstetter et al., 2004). Of the adults who partook in one such study with mixed clinically and non-clinically depressed subjects, six reported clinically significant depression at baseline. By the end of the mindfulness training program all of these individuals demonstrated sub-clinical levels of depression (Zylowska et al., 2008). These findings suggest that mindfulness practice may be an effective method for treating depressive symptoms in individuals of all ages, regardless of clinical levels.

### **General Mental Health**

Beyond specific mental health diagnoses, the literature supports mindfulness practice as an effective way to improve general mental health. Studies examining these impacts show parent-reported measures supporting significant improvements in their children's levels of

internalizing problems (Bogels et al., 2008; Semple et al., 2010). Furthermore, significant improvements on youth self-reported measures of externalizing, internalizing, and social problems have all been observed as a result of mindfulness interventions (Bogels et al., 2008). This same study also found support for the maintenance of these gains at an eight-week follow up. It is important to note that these gains appeared in both parent and youth self-reports. This suggests that the benefits of mindfulness on the general mental health domains of internalizing and externalizing problems are apparent on both internal and externally observable levels. As such, these results support mindfulness practice as an effective way to improve general mental health problems in youth.

Other examinations of mindfulness training on general mental health include findings of significant improvements in self-esteem, decreased obsessive-compulsive thoughts, and even improvements in DSM IV Axis V: Global Assessment of Functioning (GAF) (Biegel et al., 2009). Furthermore, the increases in GAF scores, as well as improvement in quality of sleep, indicate a pattern with higher GAF scores and better sleep quality resulting from more days of practicing mindfulness. These findings serve to broaden the understanding of the impact that mindfulness has on overall mental health. It is important to note that global functioning and sleep quality can be impacted by myriad psychological and environmental factors. Therefore, the effectiveness of mindfulness practice on improving these markers of overall mental health indicates it may be an appropriate means of increasing general mental health, perhaps even independent of the root cause for an individual's given deficits in general psychological functioning.

Another interesting finding of note from the literature on mindfulness interventions and general mental health in youth regards different levels of student response based on initial

levels of pre-program psychological functioning. Joyce and colleagues (2010) discovered that while all students showed significant decreases in levels of general psychological problems, the group of students who showed the strongest decreases were youth who reported borderline and abnormal levels of pre-program functioning. This result highlights mindfulness practice as a specifically effective tool for potentially reducing general psychological problems in youth who are the most at-risk within this domain. Targeted and evidenced based psychological treatment may not be available to all students who suffer from mental health difficulties. As such, the research on mindfulness practice suggests it may serve as a feasible, affordable and effective tool for reducing general mental health problems in school aged youth.

### **Interpretive Considerations for Mindfulness and Mental Health**

In the context of using mindfulness-based interventions to treat specific mental health issues, it is essential to consider the relative newness of the research base for these treatments compared to more traditional psychological interventions. The first comprehensive meta-analysis examining the effects of randomized controlled trials (RCTs) of mindfulness-based interventions on symptoms of clinical disorders was recently conducted by Goldberg and colleagues (2018). In their analysis across a range of psychiatric conditions, the researchers found “mindfulness therapies were superior to no treatment, minimal treatment (at post-treatment), non-specific active controls (i.e., psychological placebo groups), and specific active controls (i.e., other psychological treatments)” (p. 58). Even though these observed trends seem to support the potential utility of mindfulness-based psychological treatments, it is important to keep in mind that the literature base from which they are drawn is still in its early stages. As such, significant differences found in the literature should be interpreted

narrowly in the context of the specific study subjects and not yet on a broader population level. More research is clearly needed before mindfulness-based interventions should be considered as a primary therapeutic treatment.

Another important consideration regarding mindfulness-based interventions and mental health is that the effectiveness of psychological treatments is due to an interaction of several factors beyond the treatment type. In one study that utilized a RCT design to compare different EBTs, Beutler and colleagues (2003) found the various treatment methods produced very similar outcomes and explained less than 10% of the variance in treatment results. Therefore, it is crucial to consider individual patient and therapist factors that contribute both to the fit of a specific EBT as well as the quality of the therapeutic alliance. Furthermore, the early mindfulness-based scientific research with clinical populations suggests that these interventions are “on average not different from first-line, evidence-based therapies such as cognitive behavioral therapy and antidepressant medication” (Goldberg et al., 2018, pg. 59). Taken together, these findings in the literature suggest that the applicability of mindfulness-based interventions warrant consideration in the treatment of some mental health disorders, but not necessarily over other EBTs. Additionally, if the decision is made that mindfulness-based interventions are the best fit for a patient, mental health providers should be sure to continually evaluate the effectiveness of the chosen treatment.

### **Indirect Benefits of Mindfulness on Academic Achievement**

A review of the literature on the direct benefits of mindfulness contains, within its findings, improvement in academic achievement after the administration of mindfulness interventions (Schonert-Reichel et al., 2015; Sing et al., 2007). While mindfulness practice itself does not yield the concrete knowledge required for academic achievement, it may act to

impact other mechanisms that are known to foster academic achievement. Indeed, an exploration of the literature on some of the social-emotional predictors of academic achievement shows much overlap with many of the previously described direct benefits of mindfulness practice.

One example of a recent study that demonstrates this overlap was conducted by Cooper and colleagues (2014). These authors found that levels of social skills in kindergarten predicted academic achievement as far out as the fifth grade. Specifically, students with low/average reading skills and higher levels of social skills in kindergarten were observed to score better on fifth grade academic assessments as compared to their peers who exhibited similar levels of reading but lower levels of social skills during kindergarten (Cooper et al., 2014). The significant role that social skills play in predicating academic achievement may be one clue to the mechanisms by which mindfulness practice impacts this domain. Specifically, it is possible that the direct benefits of mindfulness such as improvement in prosocial behavior, reduction in problem behavior, as well as overall reductions in general mental health problems could be resulting in the positive social skills known to predict academic achievement. In this way, mindfulness practice may indirectly impact academic achievement through the previously identified direct benefits that impact the development of social skills.

More evidence of the overlap between the direct benefits of mindfulness practice and academic achievement comes in a 2010 longitudinal study examining Approaches to Learning (ATL; Li-Gringing et al., 2010). It was discovered that kindergarten levels of the ATL components – persistence, emotion regulation, and attentiveness – positively predicted individual student academic trajectories in reading and math performance through the fifth

grade. Furthermore, these results were consistent across dimensions of socioeconomic and race/ethnic backgrounds. Since improvement in impulsivity, emotion regulation, and attention are all expected direct benefits of mindfulness practice, it may be these same skills that are also serving to promote positive academic achievement. This potential indirect impact of mindfulness practice on academic trajectories promotes its implementation in schools as early as kindergarten.

Finally, the overlap between mindfulness practice and academic achievement can also be seen in research exploring the causes of academic difficulties and dropout. The literature shows strong support for the positive impact of academically engaged behavior in predicting outcomes of academic achievement and high school dropout (Fredricks et al., 2004; Greenwood et al., 2002). These findings shed further light on the indirect mechanisms of action that mindfulness has that may come into play to impact academic achievement. It is possible that academically engaged behavior might be fostered through some of the direct benefits of mindfulness such as gains in attentional control, executive functioning, emotional regulation, and prosocial behavior, as well as, decreases in problem behavior and impulsivity. In these ways mindfulness practice may serve to bolster or even develop students' skills in the area of academic engagement. As such, mindfulness intervention may indirectly impact academic achievement through the promotion of academic engagement.

## **The Present Study**

### **Selection of Outcome Variables**

The present study attempted to measure the impact of a school-based mindfulness training program on measures of three important student classroom behaviors - Attention, Hyperactivity, and Prosocial Behavior. Above all else, these outcome measures were selected

because the literature supported a potential impact between the selected constructs and mindfulness practice (Bogels et al., 2008; Schonert-Reichl et al., 2015; Semple et al., 2010; Zylowska et al., 2008). In order to improve the probability of teacher buy-in to the assessment process, a group of classroom teachers were involved in the selection of outcomes to be assessed. The researcher presented to these teachers a brief review of the mindfulness literature covered here as well as its direct and indirect benefits. Of primary interest to the researcher were the scales of attention and hyperactivity. After a collaborative discussion with the teachers, they expressed a desire to also measure prosocial behavior.

Attention was of primary interest to the researcher because of the strong evidence in the research for its predictive powers regarding later academic achievement (Duncan et al., 2007). Additionally, the potential impact that attentional control may have on achievement holds strong face validity in the mind of the researcher. Indeed, it is difficult for students to maximize their learning potentials without the foundational skill of attentional control. Furthermore this skill is critical for students' academic success because the ability of students to focus their attention on their lessons during the school day is a major component of academically engaged behavior. It is, therefore, not surprising that reviews of the research literature reveal a positive correlation between behavioral engagement and academic achievement across elementary, middle and high school levels (Fredricks et al., 2004). Therefore, attentional control is a potentially influential individual-specific variable that may contribute to students' successful long-term academic trajectories.

An important consideration for any of these school-based interventions is its ability to target both clinical and non-clinical populations alike. This is especially pertinent because prevalence rates for Attention Deficit Hyperactivity Disorder (ADHD) in school-aged

children in the United States have been on the rise. In 2003, 7.8% of these children were diagnosed with ADHD. In 2007, this number rose to 9.5%; and in 2011, 11% or 6.4 million school-aged children were diagnosed with ADHD (CDC, 2016). Best practice recommends that treatment for ADHD should include both medication and therapy for children older than six, and just therapy as a first-line treatment for children ages four and five. However, fewer than 33% of the older group and 50% of the younger group received their recommended treatments (CDC, 2016). Therefore, there is a clear need to address this gap in treatment so this growing subgroup of students can have the best chance to thrive in their academic careers. Since medication is outside of the scope of treatment that school-based interventions can provide, their focus should be on therapeutic techniques that improve attention. Furthermore, this approach is consistent with best practice recommendations for both older and younger students diagnosed with ADHD.

This evident gap in the delivery of recommended treatments for students with ADHD and the potential applicability of mindfulness training to appropriately fill this need, present the rationale for including Hyperactivity as an outcome variable. Assessment of the impact of the present mindfulness program on the core symptoms of ADHD – Attention and Hyperactivity – aimed to provide potentially important information to the growing research base on ADHD treatment in schools. Especially given the rising trend of students diagnosed with ADHD and the aversion many parents feel towards medicating their children, mindfulness training may present a feasible classroom-based intervention that helps address the increasingly prevalent symptoms of ADHD in students. When taken together, the effect of the mindfulness program on the outcome variables of Attention and Hyperactivity can



shed light on any potential impact the present mindfulness program may have on the symptoms of ADHD for students with and without the clinical diagnosis.

As mentioned previously, the decision to include Prosocial Behavior as an outcome variable was made primarily by the teachers involved in the planning stages of the present program. They explained their rationale as rooted in wanting to see if mindfulness could impact the prosocial growth of their students as the research they were presented with suggests it may (Schonert-Reichl et al., 2015; Semple et al., 2010). They articulated a belief based on their experience that this kind of growth would be beneficial for both their students' personal and academic trajectories. This is consistent with the previously discussed finding that students' kindergarten levels of social skills predicted academic achievement as far out as fifth grade (Cooper et al., 2014). Therefore, Prosocial Behavior was added as the third direct outcome variable to be measured by teacher report.

### **Teacher-Centered Approach**

A novel aspect of this study was the teacher-centered approach to the mindfulness program development and implementation. The researcher believed that for the program to have the greatest chance of potentially benefiting the students, teacher buy-in was paramount. For this reason, teachers were involved in the development of virtually all aspects of the present mindfulness program. Additionally, they were provided with a "menu" of options for leading mindfulness each day. The menu included scripts the teachers could read and audio or video clips they could play for their students. This collaborative process is described in more detail in subsequent sections of this dissertation. Above all else, the core belief in the foundation of this program was that teachers are the experts on their students. As such, they were instructed to try several options on the menu and then stick with the ones that resonated

most with their students. In this way, teachers gained more agency in their implementation of the program and their students received more personalized administrations of the mindfulness program.

This teacher-centered approach differed from existing school-based mindfulness programs, which typically provide teachers with a homogenous program for all students in a given grade range (MindUP, 2011; Learning to Breathe, 2013). All students possess different interests and learning styles. As such, each classroom presents a unique constellation of learning needs. The design of the present program attempted to solve this problem of differentiation by empowering classroom teachers to select among options regarding the method of content delivery that best tailored the program to the unique needs of their individual classrooms. Consequently, the results of the present study serve to evaluate the effectiveness of this novel, teacher-centered, approach to school-based mindfulness program design and implementation.

### **Research Questions**

The present study addressed the following research questions:

**RQ1:** What is the potential effect of the school-based mindfulness program on student attention? This question was addressed by conducting a repeated measures mixed between-within subjects analysis of variance to examine an overall main effect, as well as potential interaction effects and main effects by group (sex, grade, parent education, and fidelity), across three time points, controlling for pretest levels. The researcher hypothesized that students receiving the mindfulness intervention will show an increase in attention over time. This hypothesis was based on trends found in the literature showing increases on teacher-rated measures of attention as a result of

mindfulness-based interventions (Napoli et al., 2005; Schonert-Reichl & Lawlor, 2010).

**RQ2:** What is the impact of the school-based mindfulness program on student levels of hyperactivity? This question was addressed by conducting a repeated measures mixed between-within subjects analysis of variance ANOVA to examine an overall main effect, as well as potential interaction effects and main effects by group (sex, grade, parent education, and fidelity), across three time points, controlling for pretest levels. The researcher hypothesized that students in the intervention group will exhibit a reduction in hyperactivity over time. This hypothesis was informed by the reported success of mindfulness-based interventions for reducing the symptoms of ADHD for both clinical and non-clinical samples in the literature (Semple et al., 2010; Zylowska et al., 2008).

**RQ3:** What is the effect of the school-based mindfulness program on student measures of prosocial behavior? This question was addressed by conducting a repeated measures mixed between-within subjects analysis of variance ANOVA to examine an overall main effect, as well as potential interaction effects and main effects by group (sex, grade, parent education, and fidelity), across three time points, controlling for pretest levels. The researcher hypothesized that the students receiving the intervention will demonstrate an observable increase in prosocial behavior. This hypothesis was based on trends in the literature that show decreased problem behavior and increased prosocial behavior as a result of mindfulness-based interventions (Schoner-Reichl et al., 2015; Schonert-Reichl & Lawlor, 2010).

## CHAPTER 2: METHODOLOGY

### Participants and Setting

#### Participants

The final sample consisted of  $N = 138$  students enrolled at a public elementary school on California's central coast. The majority of students identified as Latino (75.4%), followed by Caucasian (20.3%), Asian (1.4%), Filipino (0.7%), and African American (0.7%). An additional 1.4% of students identified with two or more ethnicities. Almost half (48.3%) were classified as English Language Learners (ELL) and 48.6% reported their home language as Spanish. A slight majority of students in the study were female (50.7%). Regarding grade level, students were distributed across Pre-K (13.8%), K (14.5%), Grade 1 (11.6%), Grade 2 (23.9%), Grade 3 (8.7%), Grade 4 (13%), and Grade 5 (14.5%).

To determine if the final sample size would provide sufficient power, G\*Power 3.1 was used to calculate the minimum sample size required to detect a medium effect (Cohen's  $f = .25$ ). The decision to target a medium effect size was made after reviewing the results of other mindfulness studies in the literature that have looked at effects on similar outcomes. Another study that used teacher-rating scales to evaluate a teacher-led mindfulness program found effect sizes in the moderate range regarding changes in behavioral dysregulation, attention, concentration, and aggression (Schonert-Reichl & Lawlor, 2010). Given the similarity between both the study design and the above constructs to the design and variables of interest in the present study, the decision was made to calculate the necessary sample size to have enough power to detect a medium-sized effect. In respect to the construct of attention, other research has shown effect sizes in the medium to large range pertaining to changes as a result of mindfulness training (Bogels et al., 2008; Semple et al., 2010). Taken

together, the decision to calculate power using a medium effect size represented a conservative approach to the study design. The analysis with the largest number of groups, and therefore lowest potential power, was for the Grade variable. For this analysis with six groups, a priori, repeated-measures ANOVA, within-between interaction indicated that a total sample size of 60 was needed to detect an effect size of .25 at the  $\alpha = .05$  level of significance. Therefore, the current study's sample of  $n = 138$  was adequate to detect the hypothesized intervention effects.

### **Setting**

This study was conducted at a public elementary school in central California. A breakdown of school-wide enrollment by grade can be found in Table 1. The majority of students at the school identified as Latino (76.7%), followed by Caucasian (20.1%), Asian (1.7%), Filipino (0.2%), and African American (0.2). An additional 1.1% of students identified with two or more ethnicities. Of these students, 66.3% were identified as socioeconomically disadvantaged by the school. A large minority of the students (48.3%) were also classified as English Language Learners (ELL). Additionally, the school reported serving ten students with disabilities. The California Assessment of Student Performance and Progress (CAASPP) System is conducted statewide for students beginning in 3<sup>rd</sup> grade. It is comprised of the Smarter Balanced Summative Assessments for students in general education and the California Alternative Assessments (CAAs) for eligible students who suffer from significant cognitive disabilities. These assessments measure performance in English Language Arts (ELA) and Mathematics. The CAASPP results from 2016-2017 showed that 41.36% and 33.03% of students at this elementary school met or exceeded the

state standards in ELA and Mathematics, respectively. A breakdown of these results by sex, ethnicity, SES and ELL can be found in Table 2 for both the ELA and Mathematics subtests.

Table 1

*2016-2017 Enrollment by Grade*

Grade Level	Number of Students
Kindergarten	137
Grade 1	87
Grade 2	80
Grade 3	68
Grade 4	74
Grade 5	82
Total Enrollment	528

Table 2

*2016-2017 CAASPP Assessment Results – ELA and Mathematics*

Student Group	Number of Students			Percent of Students Standard Met or Exceeded	
	Enrolled	Tested	% Tested	ELA	Math
All Students	228	221	96.93	41.36	33.03
Male	140	136	97.14	35.56	28.63
Female	88	85	96.59	50.59	40.00
Latino	176	173	98.30	35.84	26.44
Caucasian	42	38	90.48	63.16	55.26
Low SES	170	165	97.06	35.37	25.45
ELLs	124	123	99.19	27.87	23.58

**Measures**

The present study primarily focused on three direct outcome measures - Attention, Hyperactivity and Prosocial behavior. The outcomes were assessed via teacher report survey measures. These measures were completed at three time points (September, February, and May) in 2016-17 during regularly scheduled staff meetings. A complete list of measure items

by scale can be found in Appendix A. On average teachers took approximately 1.5-2 minutes per student to complete the questionnaire.

### **Attention**

The Attention Problems Scale from the Behavior Assessment System for Children – Second Edition, Teacher Rating Scales (BASC-2 TRS; Reynolds & Kamphaus, 2004) was used to measure Attention in the present evaluation. According to the manual Attention Problems are defined as “the tendency to be easily distracted and unable to concentrate more than momentarily.” The scale’s authors go on to report “the Attention Problem scale measures an inability to maintain attention and the tendency to be easily distracted from tasks requiring attention (pg. 61).” The scale is a teacher-report survey that includes seven items (e.g. “Has a short attention span” and “Is easily distracted”). Teachers responded on a four-point Likert scale with response options: *Never, Sometimes, Often, Almost Always*. All items on the TRS Attention Problems Scale had factor loadings greater than .82. The scale also demonstrated strong internal consistency with  $\alpha = .95$ . Additionally, it was found to have a test-retest reliability of  $r = .83$ . Furthermore, inter-rater reliability for the Attention Problems scale was found to be  $r = .70$  (Reynolds & Kamphaus, 2004).

### **Hyperactivity**

The Hyperactivity Scale from the Behavior Assessment System for Children – Second Edition Progress Monitor, Externalizing and ADHD Problems Teacher-Child/Adolescent Form (Reynolds & Kamphaus, 2009) was used to measure Hyperactivity in the present evaluation. According to the manual, Hyperactivity is defined as “the tendency to be overly active, rush through work or activities, and act without thinking.” The scale is a teacher-report survey that includes five items (e.g. “Has trouble staying seated” and

“Interrupts others when they are speaking”). Teachers responded on a four point Likert scale with response options: *Never, Sometimes, Often, Almost Always*. Reliability estimates for the Externalizing and ADHD Problems scale show that the Teacher – Child/Adolescent Form demonstrated strong internal consistency with  $\alpha = .96$ . Additionally, it was found to have an adjusted test-retest reliability of  $\text{Adj. } r = .84$  (Reynolds & Kamphaus, 2009).

### **Prosocial Behavior**

Positive Experiences at School Scale. Prosocial Behavior was measured using an adapted version of the Prosocial Behavior Scale from the Positive Experiences at School Scale (PEASS; Furlong et al., 2013). This was originally a self-report measure that was adapted to be teacher-report (e.g. from “I listen when my teacher is talking” to “Listens when teacher is talking”). The scale included five items (e.g. “Is nice to other students” and “Follows the classroom rules”). Teachers responded on a four point Likert scale with response options: *Almost Never, Sometimes, Often, Very Often*. All items on the Prosocial Behavior Scale had factor loadings greater than .67. Reliability estimates on the original self-report Prosocial Behavior Scale demonstrated good internal consistency with  $\alpha = .80$  (Furlong et al., 2013). Reliability estimates on the adapted teacher-report Prosocial Behavior Scale were found to also show good internal consistency with  $\alpha = .93$  at all three time points.

## **Procedure**

### **Pilot Study**

The study was conducted in a school where the primary investigator and his advisor had a history of collaboration with both district and school level leadership. The principal of the collaborating school had a history of implementing innovative practices and interventions to support both the academic and social-emotional development of her students. The



researcher first presented her with evidence from the literature for some of the academic and social-emotional gains found after the implementation of school-based mindfulness programs. After this first meeting, the principal recruited interested teachers to participate in a pilot study of the mindfulness program. The purpose of the pilot study was to understand the implementation of a mindfulness program at this specific school and determine if it would be feasible on a larger scale. Additionally, the pilot study allowed for the collection of preliminary data on the selected measures to examine whether they were sensitive to potential changes for the children who participated in the program.

This pilot study consisted of four Grade 4 and Grade 5 classrooms during the 2015-2016 academic year with  $n = 44$  students receiving the intervention and  $n = 24$  students serving as a control group. The teachers completed survey measures at pre-test to establish a baseline for their students in the areas of Attention, Hyperactivity and Prosocial Behavior. Implementation of the pilot mindfulness program utilized the Sitting Still Like a Frog mindfulness program and its 11 audio lessons (Snel, 2013). Teachers in the intervention classrooms administered these lessons after lunchtime, twice per week, for a total of eight weeks. While the duration of each audio lesson varies, all lessons were under ten minutes long. The lessons, therefore, did not interfere drastically with regular instructional time. In the pilot, teachers were able to choose which lessons to administer and recorded their choices through weekly fidelity checks. After completion of the eight-week program, the teachers completed post-test measures on the same three scales as at pretest: Attention, Hyperactivity and Prosocial Behavior. Preliminary analysis revealed small to moderate effect sizes, indicating the measures were appropriate and providing sufficient evidence for continuing with a larger study.

## **Current Program Development**

Based on the results from the pilot study, the principal of the school agreed to an expansion of the mindfulness program and data collection procedures during the following academic year. In order to tailor the mindfulness intervention to the specific needs of the school, a focus group was conducted with the teachers who participated in the pilot study. The researcher had experience as a school teacher, and believed that for fidelity and buy-in to be greatest, teachers had to be intimately involved in the program's development.

During this focus group, teachers reflected that after trying several guided meditations in the curriculum, they each had found a different audio lesson that best engaged their respective classes. This feedback was instrumental in the development of a "menu" of mindfulness activities that teachers could sample until they found lessons that resonated the most with the unique needs of their individual classrooms. Other important feedback from this focus group pertained to the length of the mindfulness lessons. The teachers reported that the mindfulness lessons that were three to five minutes long were the most effective at maintaining student engagement. As such, all mindfulness options on the menu were limited to this time range.

Teachers' feedback was solicited at multiple points during the academic year. This feedback was used to monitor the fidelity of implementation but also served as a method for being responsive to teachers concerns and improving buy-in. As previously mentioned in 'The Present Study' section above, the researcher was primarily concerned with measuring attention and hyperactivity. Based on a presentation that included an overview of the literature on the benefits of school-based mindfulness programs, the teachers expressed a strong desire to also measure prosocial behavior. Therefore a scale on this construct was

included to support teacher investment in the program evaluation. In regard to survey length, the teachers reported that they felt that a 15-item measure would be reasonable for them to complete on each of their students. In order to ensure the best chance of valid data collection the researcher strived to accommodate this feedback. The final teacher survey proposed in the present evaluation ultimately contained 17-items. After integrating this feedback into the research design, IRB approval was obtained for the study through the UCSB Human Subject Committee.

**Program Content Development.** The first step in curating the menu of mindfulness practices used in the present study was to establish the five core practices of the program, one for each day of the week. Based on a combination of personal mindfulness experience and support for specific practices in the literature and existing mindfulness programs, the following were selected: Belly Breathing, Body Scan, Progressive Muscle Relaxation, Visualization, and Mindful Coloring. With the exception of Mindful Coloring Teachers were provided with three content delivery categories: scripts to read, audio tracks to play, and video clips to show to their students. Each of these three content delivery options on the “menu” contained multiple resources that were targeted for either lower or upper elementary aged students. For Mindful Coloring teachers were only provided with a script to read and age appropriate resources to print out for their students to color. All aspects of the program could be accessed by teachers via their school’s Google Drive. All scripts were also made available on this Google Drive. The electronic “menu” contained links that the teachers could click on to access video and audio resources. The complete program “menu” can be found in Appendix B.

As previously discussed, there is no one specific mindfulness practice or program that the literature supports as most effective. Additionally, with the emerging popularity of mindfulness there is an ever-growing library of mindfulness practices for youth that can be found on-line. One central tenet of the present mindfulness program is that teachers are the best experts when it comes to engaging their students and differentiating lessons. With this in mind, each resource on the “menu” contained its source and teachers were encouraged to explore other mindfulness resources by sources they found to resonate most with their students. During training and data collection sessions, teachers were provided with an opportunity to share these additional resources with their colleagues.

**Teacher Training.** Teacher training occurred over the course of three regularly scheduled staff meetings during the beginning of the year. Each teacher training session was comprised of the same three components: Psychoeducation on mindfulness, modeling of core mindfulness practices, and questions/ problem solving. Running through each of these components was the foundational goal of empowering teachers to feel confident in their ability to lead mindfulness practices in their classrooms. Central to the philosophy of the present mindfulness program is the belief that teachers are the best experts at differentiating instruction in response to the unique needs of their individual classrooms. In this way, students could receive the most appropriate intervention when their teacher had the ability to tailor the content delivery based on his or her experiential knowledge. As such, the main goal of each teacher training session was to develop a sense of agency among the teachers implementing the program.

The first training session began by providing teachers with the previously described definition of mindfulness derived from the literature: “Paying attention, on purpose, with

compassion and non-judgment.” In accord with the recommendations from the literature described in the ‘Historical and Cultural Context’ section above, this definition of mindfulness was communicated as a comprehensive way of thinking instead of a simple technique. Teachers were explicitly taught that mindfulness was not about eliminating any unwanted thoughts or feelings but instead a repeatedly rehearsed process of noticing those thoughts and feelings without responding to them in traditionally automatic ways. As such, the purpose of the core practices was conceptualized in the training as providing students with different opportunities to practice this new way of attending.

After learning what mindfulness was, the teachers were provided with a brief overview of the benefits found in the literature as a result of mindfulness practice. The selected benefits presented to the teachers included improvements in self-regulation, stress response, emotional control, prosocial behavior, executive functioning, and social-emotional development. The purpose of this section of the training was to foster teacher buy-in by showing them how their efforts in the program implementation could possibly benefit their students.

Next, the program was introduced through the central “mindful ship” metaphor and animated slide. A poster-sized version of this imagery was also provided for each teacher to hang in his or her classroom (Appendix C). The researcher then modeled the following script to train the teachers in presenting the program and concept of mindfulness to their students:

“Our active minds are like this ship running at full steam. When we want to quiet our minds, we can turn off the engines but the ship will still be moving. Even if the ship loses momentum, it will still be pushed around by the waves. The waves that push our mind are all the thoughts and feelings that we have in our head. Therefore, to stop the

ship and quiet our minds we need an anchor. Each of the core practices in the program represents an additional anchor we can use when we want to quiet our mind. When we practice mindfulness we notice the waves and use our anchors to keep our minds from getting swept away.”

Teachers were also provided with access to an electronic version of the animated “mindful ship” slide so that they could replicate the program introduction for their students.

Another major component of the first training session was explicitly communicating to teachers the core philosophy that their students had the greatest chance of benefiting from mindfulness practice when its presentation was differentiated based on the teachers’ expertise. The fact that mindfulness in the literature takes many different forms was highlighted during this session to reinforce that there is no one specific mindfulness practice that has been found to be most effective. Additionally, teachers were provided with hard copies of the electronic menu to make tangible the variety of options that were available to them for leading each core practice. Next, they were oriented to the menu structure and instructed to try different options with their students and rely upon their expertise to identify the most engaging practices for their specific classrooms. Furthermore, menu options were derived from a variety of free on-line sources, and once teachers had identified a preferred source, they were empowered to utilize other resources from that same source. It was explained to teachers that the library of mindfulness practices for children is rapidly growing and therefore they should check preferred sources regularly for new content.

In addition to the full-length scripts (Appendix D) and audio- and video-based mindfulness practices on the menu, teachers were also provided with an “Anchors Cheat Sheet” (Appendix E) to guide them in creating their own scripts for each of the core

practices. The purpose of highlighting this resource during the first training session was to develop a sense of agency in the teachers pertaining to their ability to lead mindfulness practices for their students. Agency was further developed through the variety of content delivery options built in to the program. Through these multiple pathways, teachers were provided with the necessary tools to differentiate the program based on the unique needs of their students.

After the teachers were trained on the program overview, the first core practice training began. Belly Breathing was introduced as the first practice because it is utilized in all of the other core practices. First, teachers were provided with psychoeducation on the physiology of breathing and the different muscles involved in taking shallow and deep (belly) breaths. They were then provided with direct instruction on how to use the breath as an attentional anchor. Next, the researcher used one of the scripts from the menu to model leading a belly-breathing lesson for the teachers. Finally, the researcher fielded questions from the teachers.

The second and third teacher training sessions followed the same format of psychoeducation, modeling of core practices, and questions/problem solving. This process was repeated twice in each of these training sessions. The second training session covered the core practices of Body Scan and Progressive Muscle Relaxation. The third training session contained the core practices of Visualization and Mindful Coloring. During this training period, and throughout the program, teachers were encouraged to reach out to the researcher via e-mail with questions or any issues that arose. Additionally, teachers were encouraged to bring the researcher into their classrooms to model mindfulness lessons for their students.

## Data Analyses

The primary research questions were addressed by conducting repeated measures, mixed between-within subjects analyses of variance (ANOVA) at three time points (Fall, Winter, Spring) examining participating students' attention, hyperactivity, and prosocial behavior. There were four grouping variables: (a) sex (female vs. male), (b) grade (PreK, K, 1, 2, 3, 4, and 5), (c) parent education (PEd; assessed via parent education, High = College Graduate vs. Low = Not a College Graduate), and (d) implementation fidelity based on average days of mindfulness class sessions practiced per week (Low = 1 or 2 days, Medium = 3 days, High = 4 or 5 days per week). The decision to categorize the PEd variable by college graduation was informed by research connecting college graduation with higher average socioeconomic status (SES) (Carnevale et al., 2015). The mixed between-within subjects ANOVA approach was selected because it allowed for the examination of both within subject effects and interactions between variables.

Within each dependent variable, main effects of time were explored, along with interaction effects and main effects for each of the grouping variables. Consistent with the suggested practice with this approach to analysis, in order to interpret main effects accurately, interaction effects must first be shown to be not significant (Pallant, 2007, pg. 272). Pallant (2007) explains "a significant interaction means that the impact of one variable is influenced by the level of the second variable; therefore general conclusions (as in main effects) are usually not appropriate" (pg. 273). Effect sizes were reported as partial eta squared ( $\eta_p^2$ ). The magnitudes of these effects were interpreted according to the recommendations of Cohen (1988, pg. 284-7) with 0.01 = small effect, 0.06 = moderate effect, and 0.14 = large effect.



## Data Screening and Cleaning

The mindfulness intervention was administered during the 2016-2017 school year to all  $N = 528$  students from grades Pre-K to Grade 5 at the public elementary school described above. Of these students, parental consent to share data with the researcher was granted for 200 students. However, 50 of these parents chose not to report their education level. As previously discussed, the PED variable was included as a proxy for SES. This was an important grouping variable in the study because of the strong support from the literature for the impact of SES on many of the same cognitive functions utilized in mindfulness practice (Mani et al., 2013; Najman et al., 2009; Schoon et al., 2012). The present analysis does not allow for pair-wise deletion and this specific variable is unable to be reliably imputed. Therefore, the decision was made to remove these subjects from the analysis resulting in a sample size of  $N = 150$ .

Data screening detected no univariate outliers, with  $p = .001$ . Using the Mahalanobis distance criteria, a cut off value of  $\chi^2 (13) = 34.53$  was identified for detection of multivariate outliers (Tabachnick & Fidell, 2007). Using the recommended criteria for samples similar to the one in the present study (Statistics Solutions, 2015), 12 multivariate outliers were identified and removed from the data set. The resulting data set ( $N = 138$ ) was found to meet the assumptions of multicollinearity, singularity, univariate and multivariate normality, linearity, and variance-covariance.

## CHAPTER 3: RESULTS

All data analyses were conducted using SPSS Version 23 (IBM corp., 2015). Before addressing the primary research questions descriptive analyses were run to examine variable means, standard deviations, and bivariate correlations. All variables were significantly correlated ( $p < .001$ ) in ways that were consistent, theoretically (e.g., attention problems and hyperactivity were significantly and positively correlated). See Table 3 for a complete summary of descriptive statistics and correlations among dependent variables. The following sections report the results of each analysis conducted to examine the primary research questions.

Table 3

*Means, Standard Deviations, and Correlations for All Dependent Variables*

Variable	Descriptives			Correlations									
	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	
1. T1 Att	138	0.82	0.68	-									
2. T1 Hyp	138	0.30	0.43	.60	-								
3. T1 Pro	138	3.68	0.47	-.64	-.70	-							
4. T2 Att	138	0.75	0.68	.54	.40	-.43	-						
5. T2 Hyp	138	0.26	0.43	.39	.66	-.55	.59	-					
6. T2 Pro	138	3.72	0.44	0.38	-.51	.59	-.67	-.71	-				
7. T3 Att	138	0.64	0.71	.56	.42	-.51	.84	.58	-.62	-			
8. T3 Hyp	138	0.26	0.42	.45	.70	-.62	.50	.80	-.64	.62	-		
9. T3 Pro	138	3.72	0.50	-.42	-.47	.62	-.53	-.59	.73	-.69	-.72	-	

*Note.* All correlations were significant at the  $p < .001$  level.

### Research Question 1

#### Main Effect of Time on Attention

A mixed between-within subjects analysis of variance (ANOVA) was conducted to assess the impact of the school-wide mindfulness program on participants' scores on the Attention Problems Scale, across three time periods (Fall, Winter, Spring). Overall, there was

a significant main effect for time, Wilks Lambda = .83,  $F(2, 102) = 10.22$ ,  $p < .001$ ,  $\eta_p^2 = .17$ , with the entire student body showing a reduction in Attention Problems scores across the three time periods (see Figure 1). This finding indicated a large main effect for time that was found to explain 17% of the variance in scores on the attention problems scale. Contrasts revealed that scores on the Attention Problems scale in Fall were significantly higher than in Winter,  $F(1, 103) = 5.43$ ,  $p = .022$ ,  $\eta_p^2 = .05$ , and scores in Winter were significantly higher than in Spring,  $F(1, 103) = 7.33$ ,  $p = .008$ ,  $\eta_p^2 = .07$ .

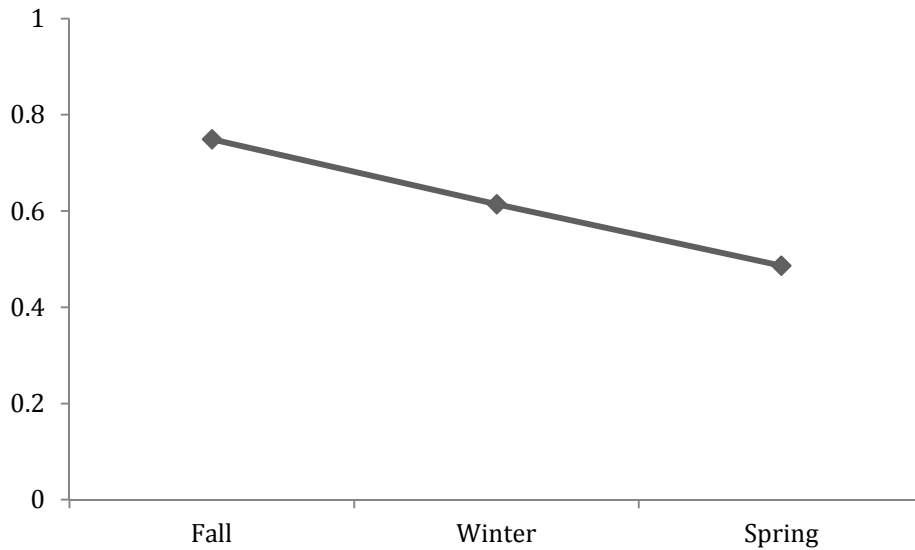


Figure 1. Overall school-wide mean attention problems scores over time.

### Interaction and Main Effects of Grouping Variables

To answer the research questions related to potential differences between scores on the Attention Problems scale over time by sex (see Table 4), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by sex,  $F(2, 102) = 2.92$ ,  $p = .058$ ,  $\eta_p^2 = .05$ . This suggested that both sexes exhibited the same change over time on the Attention Problems scale. Further analysis showed that there was a significant main effect of sex on scores from the Attention Problems scale,  $F(1, 103) = 2.00$ ,

$p = .001$ ,  $\eta_p^2 = .10$ . This indicated a moderate to large effect of sex that was found to explain 10% of the variance in scores on the Attention Problems scale. To further evaluate the deviation in equal levels for sex, means were compared and plotted (see Figure 2). Males ( $M = 0.95$ ) were found to score significantly higher on the Attention Problems scale than females ( $M = 0.54$ ). Overall, females showed significantly fewer attention problems than males.

Table 4

*Mean Scores and Standard Deviations on Attention Problems by Sex*

Sex	<i>n</i>	Fall		Winter		Spring	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
M	68	1.00	0.73	0.97	0.69	0.92	0.74
F	70	0.65	0.58	0.53	0.61	0.37	0.56

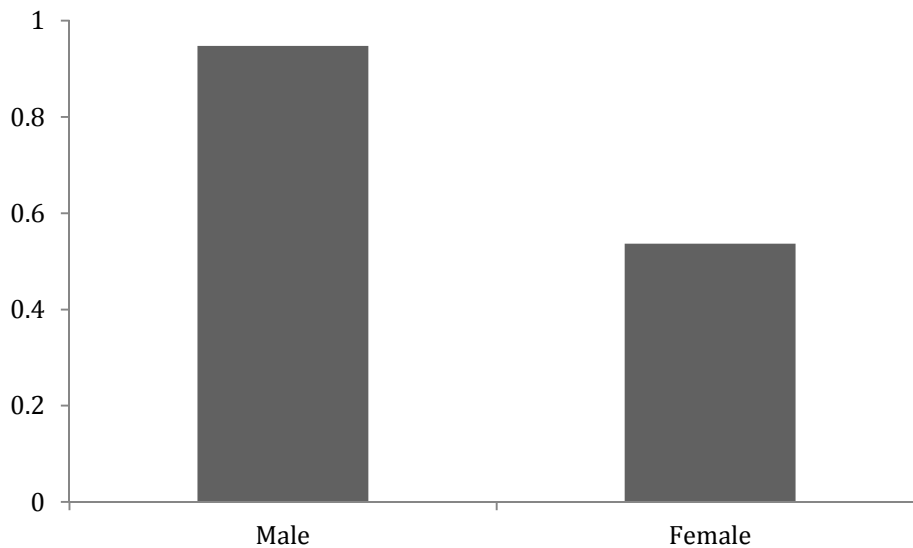


Figure 2. Estimated marginal means for attention problems by sex

To address the research questions related to any potential differences on the Attention Problems scale over time by grade (see Table 5), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by grade,  $F(12, 204) = 1.39$ ,  $p = .172$ ,  $\eta_p^2 = .08$ . This suggested that all grades exhibited the same change over

time on scores from the Attention Problems scale. Further analysis showed that there was no significant main effect of grade on attention scores,  $F(6, 103) = 1.04, p > .05, \eta_p^2 = .06$ . This indicated that scores on attention measures were similar for all grade levels.

Table 5

*Mean Scores and Standard Deviations on Attention Problems by Grade*

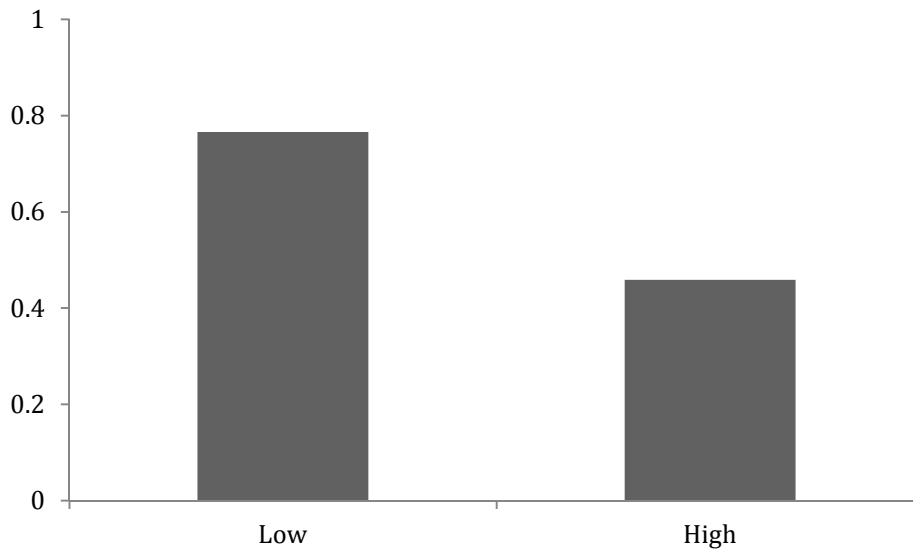
Grade	n	Fall		Winter		Spring	
		Mean	SD	Mean	SD	Mean	SD
PreK	19	0.77	0.64	1.08	0.52	0.94	0.55
K	20	0.74	0.68	0.53	0.61	0.54	0.63
1 <sup>st</sup>	16	0.65	0.62	0.56	0.57	0.34	0.64
2 <sup>nd</sup>	33	0.84	0.83	0.63	0.71	0.50	0.72
3 <sup>rd</sup>	12	0.95	0.56	0.85	0.78	0.64	0.78
4 <sup>th</sup>	18	1.07	0.66	1.01	0.75	0.83	0.82
5 <sup>th</sup>	20	0.76	0.56	0.69	0.71	0.79	0.73

To answer the research questions related to any potential differences between scores on the Attention Problems scale over time by parent education (PEd) (see Table 6), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by PEd,  $F(2, 102) = 2.41, p > .05, \eta_p^2 = .05$ . This suggested that all levels of PEd exhibited the same change over time on the Attention Problems scale. Further analysis showed that there was a significant main effect of PEd on the Attention Problems scale,  $F(1, 103) = 7.03, p = .009, \eta_p^2 = .06$ . This indicated a moderate effect of PEd that was found to explain 6% of the variance in scores on the attention problems scale. To further evaluate the deviation in equal levels for PEd, means were compared and plotted (see Figure 3). The Low PEd group ( $M = 0.77$ ) was found to score significantly higher on the Attention Problems scale than High PEd group ( $M = 0.46$ ). Overall, individuals in the High PEd group showed significantly fewer attention problems than their peers in the Low PEd group.

Table 6

*Mean Scores and Standard Deviations on Attention Problems by Parent Education*

PEd	n	Fall		Winter		Spring	
		Mean	SD	Mean	SD	Mean	SD
Low	82	0.92	0.70	0.81	0.70	0.72	0.73
High	56	0.68	0.62	0.65	0.66	0.53	0.67



*Figure 3.* Estimated marginal means for attention problems by parent education.

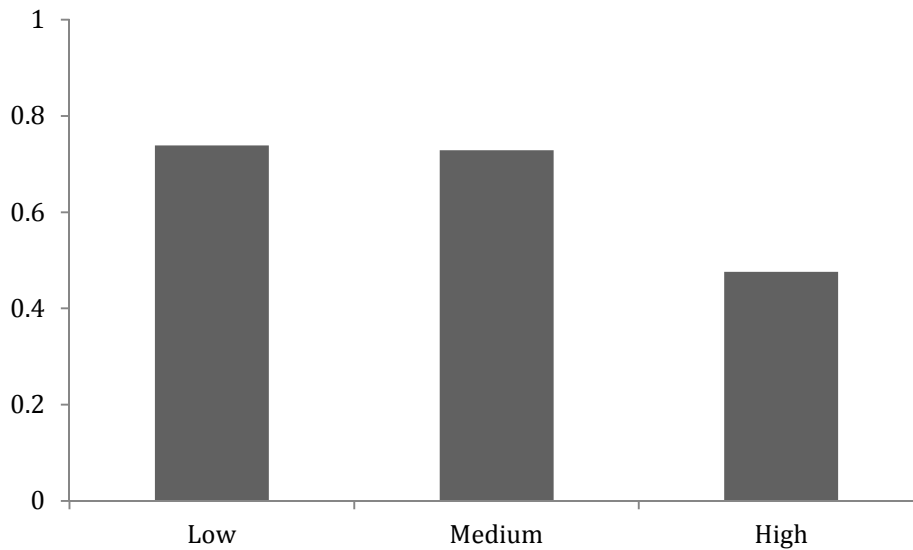
To answer the research questions related to any potential differences between scores on the Attention Problems scale over time by fidelity (see Table 7), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by fidelity,  $F(4, 204) = 1.48, p > .05, \eta_p^2 = .03$ . This suggested that for all levels of intervention implementation, fidelity exhibited the same change over time on the Attention Problems scale. Further analysis showed that there was no significant main effect of fidelity on scores from the Attention Problems scale,  $F(2, 103) = 0.02, p > .05, \eta_p^2 = .00$ . This indicated that scores on the Attention Problems scale were similar for all fidelity levels. Figure 4 shows that overall individuals in the low fidelity group had the highest overall levels of attention

problems ( $M = 0.74$ ), closely followed by the medium fidelity group ( $M = 0.73$ ), and the high fidelity group had the lowest ( $M = 0.48$ ); however this was not a significant difference.

Table 7

*Mean Scores and Standard Deviations on Attention Problems by Fidelity*

Fidelity	<i>n</i>	Fall		Winter		Spring	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Low	31	0.91	0.71	0.86	0.59	0.66	0.58
Medium	64	0.91	0.61	0.80	0.72	0.74	0.74
High	43	0.63	0.72	0.59	0.68	0.49	0.74



*Figure 4.* Estimated marginal means for attention problems by fidelity.

## **Research Question 2**

### **Main Effect of Time on Hyperactivity**

A mixed between-within subjects analysis of variance (ANOVA) was conducted to assess the impact of the school-wide mindfulness program on participants' scores on the Hyperactivity scale, across three time periods (Fall, Winter, Spring). Overall, there was a significant main effect for time, Wilks Lambda = .94,  $F(2, 102) = 3.37$ ,  $p = .038$ ,  $\eta_p^2 = .06$ ,

with the entire student body showing a reduction in scores on the Hyperactivity scale between Fall and Spring (see Figure 5). This finding indicated a large main effect for time that was found to explain 6% of the variance in scores on the Hyperactivity scale. Contrasts revealed that scores on the Hyperactivity scale in Fall were significantly higher than in Winter,  $F(1, 103) = 4.92, p = .029, \eta_p^2 = .05$ , but scores in Winter were not significantly higher than in Spring,  $F(1, 103) = 0.00, p > .05, \eta_p^2 = .00$ . Additionally, scores in Fall were significantly higher than in Spring,  $F(1, 103) = 6.01, p = .016, \eta_p^2 = .06$ .

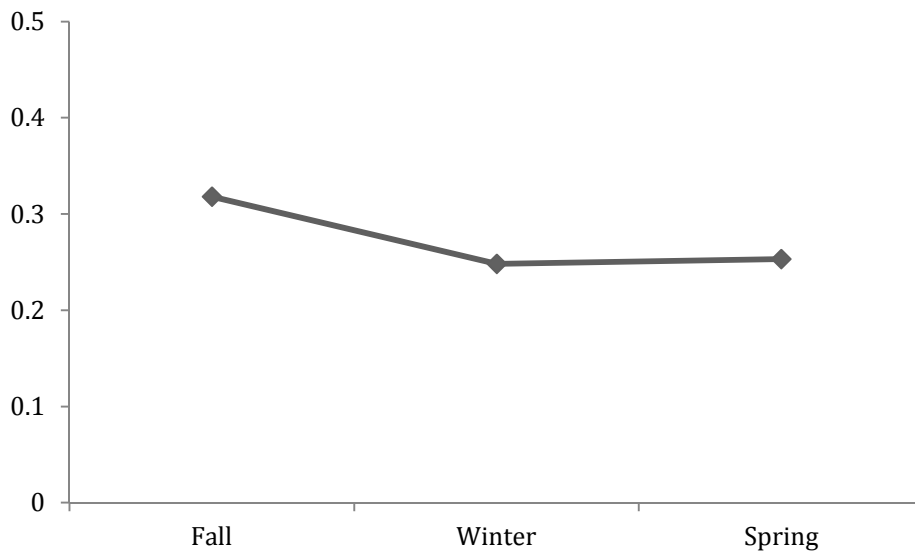


Figure 5. Overall school-wide mean hyperactivity scores over time.

### Interaction and Main Effects of Grouping Variables

To answer the research questions related to potential differences between score on the Hyperactivity scale over time by sex (see Table 8), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by sex,  $F(2, 102) = 1.44, p > .05, \eta_p^2 = .03$ . This suggested that both sexes exhibited the same change over time on the Hyperactivity scale scores. Further analysis showed that there was a significant main effect of sex on Hyperactivity scale scores,  $F(1, 103) = 15.78, p < .001, \eta_p^2$

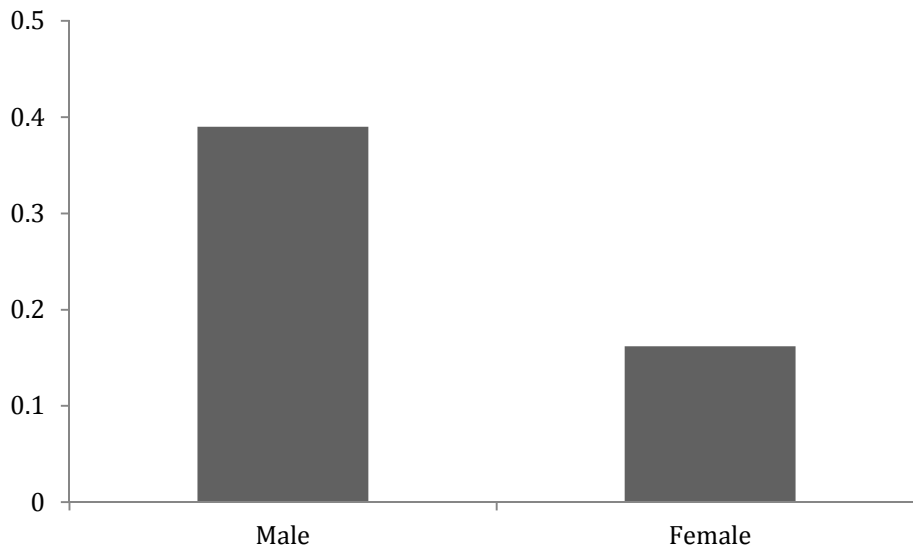


= .13. This indicated a moderate to large effect of sex that was found to explain 13% of the variance in scores on the Hyperactivity scale. To further evaluate the deviation in equal levels for sex, means were compared and plotted (see Figure 6). Overall, males ( $M = 0.39$ ) were found to score significantly higher on the Hyperactivity Scale than females ( $M = 0.16$ ).

Table 8

*Mean Scores and Standard Deviations on Hyperactivity by Sex*

Sex	<i>n</i>	Fall		Winter		Spring	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
M	68	0.41	0.49	0.38	0.52	0.35	0.50
F	70	0.20	0.33	0.15	0.28	0.16	0.30



*Figure 6.* Estimated marginal means for hyperactivity by sex.

To address the research questions related to any potential differences between scores on the Hyperactivity scale over time by grade (see Table 9), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by grade,  $F(12, 204) = 0.69, p > .05, \eta_p^2 = .04$ . This suggested that all grades exhibited the same change over time on Hyperactivity scale scores. Further analysis showed that there was no

significant main effect of grade on Hyperactivity scale scores,  $F(6, 103) = 2.63, p > .05, \eta_p^2 = .13$ . This indicated that scores on the Hyperactivity scale were similar for all grade levels.

Table 9

*Mean Scores and Standard Deviations on Hyperactivity by Grade*

Grade	n	Fall		Winter		Spring	
		Mean	SD	Mean	SD	Mean	SD
PreK	19	0.45	0.46	0.60	0.48	0.49	0.42
K	20	0.43	0.46	0.21	0.30	0.39	0.41
1 <sup>st</sup>	16	0.28	0.46	0.24	0.39	0.19	0.52
2 <sup>nd</sup>	33	0.30	0.44	0.16	0.38	0.12	0.30
3 <sup>rd</sup>	12	0.38	0.45	0.37	0.39	0.27	0.37
4 <sup>th</sup>	18	0.26	0.43	0.34	0.61	0.33	0.57
5 <sup>th</sup>	20	0.05	0.16	0.05	0.22	0.10	0.23

To answer the research questions related to any potential differences between scores on the Hyperactivity scale over time by parent education (PEd) (see Table 10), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by PEd,  $F(2, 102) = 0.22, p > .05, \eta_p^2 < .00$ . This suggested that all levels of PEd exhibited the same change over time on Hyperactivity scale scores. Further analysis showed that there was not a significant main effect of PEd on Hyperactivity scale scores,  $F(1, 103) = 2.48, p = .119, \eta_p^2 = .02$ . This indicated that scores on the Hyperactivity scale were similar for all levels of parent education.

Table 10

*Mean Scores and Standard Deviations on Hyperactivity by Parent Education*

PEd	n	Fall		Winter		Spring	
		Mean	SD	Mean	SD	Mean	SD
Low	82	0.30	0.46	0.27	0.43	0.24	0.45
High	56	0.31	0.39	0.26	0.43	0.27	0.38

To answer the research questions related to any potential differences between scores on the Hyperactivity scale over time by fidelity (see Table 11), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by fidelity,  $F(4, 204) = 2.11, p = .081, \eta_p^2 = .04$ . This suggested that all levels of fidelity exhibited the same change over time on Hyperactivity scale scores. Further analysis showed that there was no significant main effect of fidelity on Hyperactivity scale scores,  $F(2, 103) = 0.74, p > .05, \eta_p^2 = .01$ . This indicates that scores on the Hyperactivity scale were similar for all fidelity levels. Figure 4 shows that overall, individuals in the low fidelity group had the highest average levels of Hyperactivity scale scores ( $M = 0.39$ ), closely followed by the medium fidelity group ( $M = 0.24$ ), and the high fidelity group had the lowest ( $M = 0.21$ ); however this was not a significant difference.

Table 11

*Mean Scores and Standard Deviations on Hyperactivity by Fidelity*

Fidelity	<i>n</i>	Fall		Winter		Spring	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Low	31	0.44	0.45	0.43	0.47	0.32	0.41
Medium	64	0.25	0.40	0.22	0.42	0.27	0.42
High	43	0.28	0.45	0.22	0.40	0.18	0.42

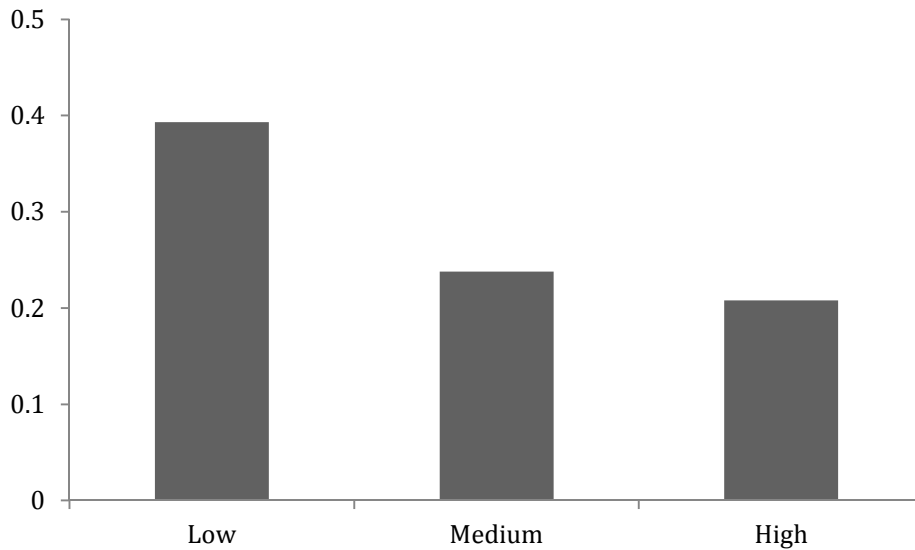


Figure 7. Estimated marginal means for hyperactivity by fidelity.

### Research Question 3

#### Main Effect of Time on Prosocial Behavior

A mixed between-within subjects analysis of variance (ANOVA) was conducted to assess the impact of the school-wide mindfulness program on participants' scores on the Prosocial Behavioral scale, across three time periods (Fall, Winter, Spring). Overall, there was a significant main effect for time, Wilks Lambda = .97,  $F(2, 102) = 1.497$ ,  $p > .05$ ,  $\eta_p^2 = .03$ , with the entire student body showing a small, but not significant increase in Prosocial Behavior scale scores between Fall and Spring (see Figure 8). Contrasts revealed that scores on the Prosocial Behavior scale in Fall were slightly lower and approaching significance than those in Winter,  $F(1, 103) = 3.01$ ,  $p = .086$ ,  $\eta_p^2 = .03$ , but scores in Winter were not significantly different from those in Spring,  $F(1, 103) = 0.29$ ,  $p > .05$ ,  $\eta_p^2 < .01$ . Additionally, Prosocial Behavior scale scores in Fall were not significantly different from those in Spring,  $F(1, 103) = 1.45$ ,  $p > .05$ ,  $\eta_p^2 = .01$ .

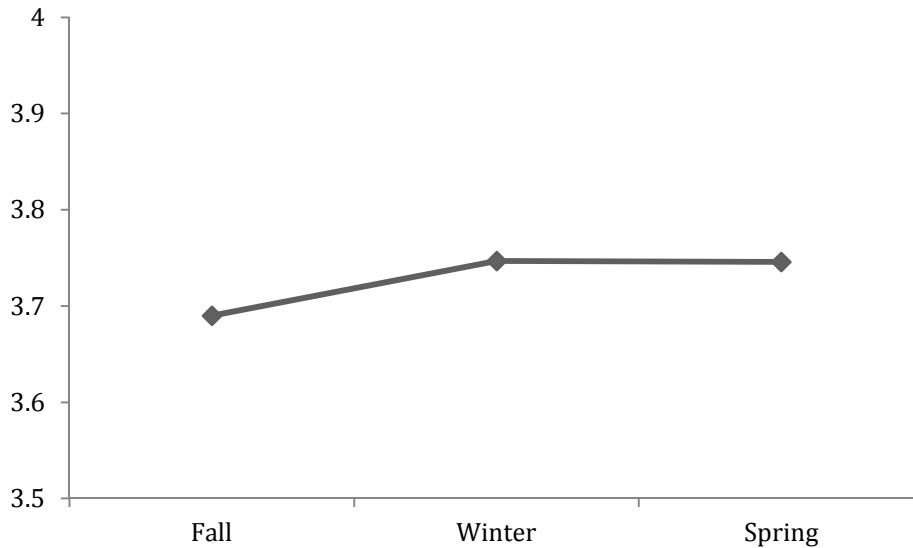


Figure 8. Overall school-wide mean prosocial behavior scores over time.

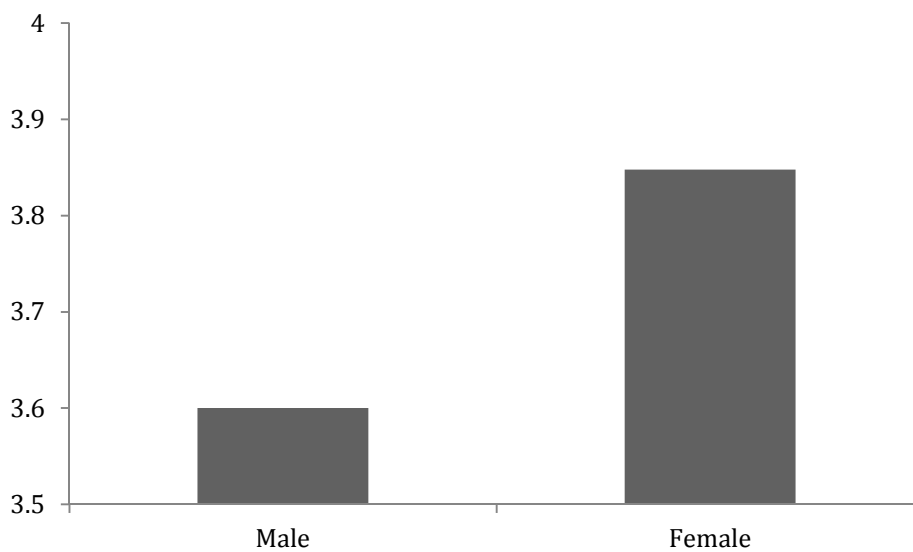
### Interaction and Main Effects of Grouping Variables

To answer the research questions related to potential differences between scores on the Prosocial Behavior scale over time by sex (see Table 12), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by sex,  $F(2, 102) = 0.47, p > .05, \eta_p^2 = .01$ . This suggested that both sexes exhibited the same change over time on Prosocial Behavior scale scores. Further analysis showed that there was a significant main effect of sex on Prosocial Behavior scores,  $F(1, 103) = 13.75, p < .001, \eta_p^2 = .12$ . This indicated a moderate to large effect of sex that was found to explain 12% of the variance in scores on the Prosocial Behavior scale. To further evaluate the deviation in equal levels for sex, means were compared and plotted (see Figure 9). Males ( $M = 3.60$ ) were found to score significantly lower on the Prosocial Behavior scale than females ( $M = 3.85$ ). Overall, females showed significantly higher scores on the Prosocial Behavior scale than males.

Table 12

*Mean Scores and Standard Deviations on Prosocial Behavior by Sex*

Sex	n	Fall		Winter		Spring	
		Mean	SD	Mean	SD	Mean	SD
M	68	3.57	0.54	3.60	0.50	3.60	0.57
F	70	3.80	0.37	3.84	0.35	3.84	0.38



*Figure 9.* Estimated marginal means for prosocial behavior by sex.

To address the research questions related to any potential differences between scores on Prosocial Behavior scale over time by grade (see Table 13), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by grade,  $F(12, 204) = 1.60, p > .05, \eta_p^2 = .09$ . This suggested that all grades exhibited the same change over time on Prosocial Behavior scale scores. Further analysis showed that there was no significant main effect of grade on Prosocial Behavior scale scores,  $F(6, 103) = 1.60, p > .05, \eta_p^2 = .09$ . This indicated that scores on Prosocial Behavior scale were similar for all grade levels.

Table 13

*Mean Scores and Standard Deviations on Prosocial Behavior by Grade*

Grade	<i>n</i>	Fall		Winter		Spring	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
PreK	19	3.49	0.63	3.63	0.38	3.45	0.63
K	20	3.59	0.54	3.78	0.52	3.78	0.49
1 <sup>st</sup>	16	3.78	0.48	3.79	0.38	3.83	0.48
2 <sup>nd</sup>	33	3.84	0.29	3.88	0.31	3.88	0.28
3 <sup>rd</sup>	12	3.67	0.51	3.58	0.66	3.78	0.39
4 <sup>th</sup>	18	3.67	0.49	3.49	0.52	3.70	0.62
5 <sup>th</sup>	20	3.65	0.41	3.72	0.34	3.55	0.49

To answer the research questions related to any potential differences between scores on the Prosocial Behavior scale over time by parent education (PEd) (see Table 14), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by PEd,  $F(2, 102) = 1.83, p > .05, \eta_p^2 < .04$ . This suggested that all levels of PEd exhibited the same change over time on Prosocial Behavior scale scores. Further analysis showed that there was a significant main effect of PEd on Prosocial Behavior scale scores,  $F(1, 103) = 4.84, p = .03, \eta_p^2 = .05$ . This indicated a moderate effect of PEd that was found to explain 5% of the variance in scores on the Prosocial Behavior scale. To further evaluate the deviation in equal levels for parent education, means were compared and plotted (Figure 10). Students in the Low PEd group ( $M = 3.64$ ) were found to score significantly lower on the Prosocial Behavior scale than their peers in the High PEd group ( $M = 3.81$ ).

Table 14

*Mean Scores and Standard Deviations on Prosocial Behavior by Parent Ed*

PEd	<i>n</i>	Fall		Winter		Spring	
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Low	82	3.66	0.49	3.69	0.46	3.72	0.49
High	56	3.72	0.45	3.77	0.42	3.72	0.51

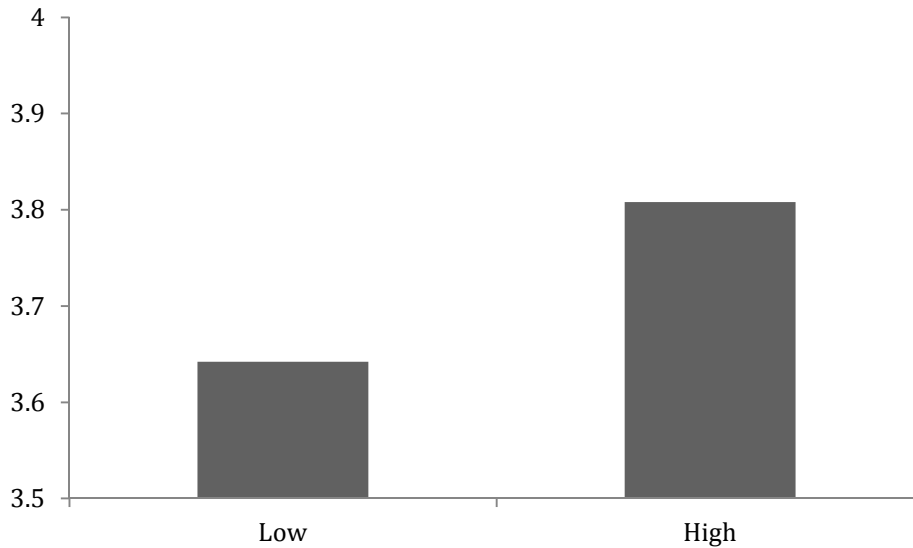


Figure 10. Estimated marginal means for prosocial behavior by parent education.

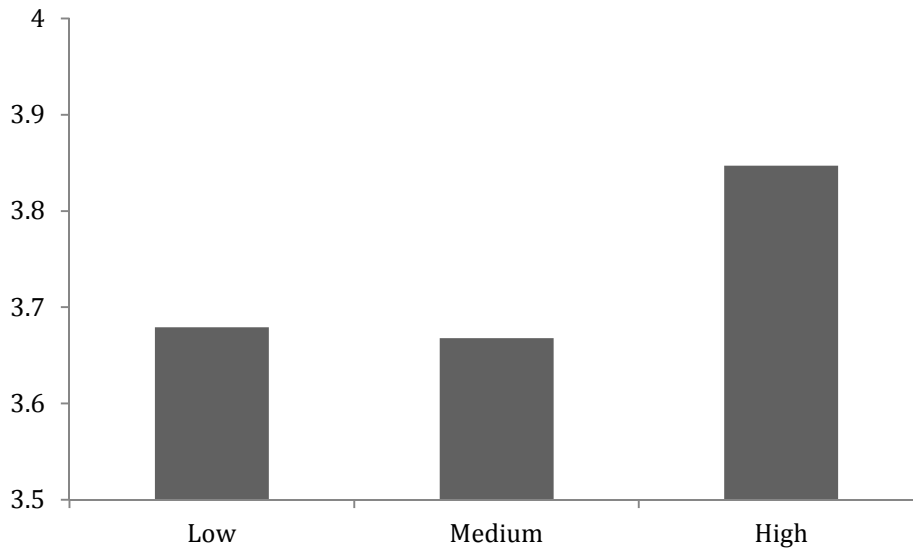
To answer the research questions related to any potential differences between scores on the Prosocial Behavior scale over time by fidelity (Table 15), a mixed between-within subjects ANOVA was conducted. No significant interaction effect was observed for time by fidelity,  $F(4, 204) = 1.04, p > .05, \eta_p^2 = .02$ . This suggested that all levels of fidelity exhibited the same change over time on Prosocial Behavior scale scores. Further analysis showed that there was no significant main effect of fidelity on Prosocial Behavior scores,  $F(2, 103) = 0.24, p > .05, \eta_p^2 = .01$ . This indicated that scores on the Prosocial Behavior scale were similar for all fidelity levels. Figure 11 shows that, overall, individuals in the High fidelity group had the highest average scores on the Prosocial Behavior scale ( $M = 3.85$ ), while individuals in the both Low ( $M = 3.68$ ) and Medium ( $M = 3.67$ ) fidelity classrooms showed group averages that were slightly lower and similar to one another; however this was not a significant difference.



Table 15

*Mean Scores and Standard Deviations on Prosocial Behavior by Fidelity*

Fidelity	n	Fall		Winter		Spring	
		Mean	SD	Mean	SD	Mean	SD
Low	31	3.64	0.56	3.75	0.36	3.66	0.55
Medium	64	3.62	0.48	3.64	0.52	3.69	0.51
High	43	3.81	0.37	3.83	0.35	3.81	0.42



*Figure 11. Estimated marginal means for prosocial behavior by fidelity.*

## CHAPTER 4: DISCUSSION

### **Review of Key Findings**

The present study was conducted to evaluate the impact of a novel school-wide mindfulness program for elementary aged students. The literature on MBIs has primarily consisted of studies with adult samples in clinical settings. There is a need for more analyses of the applicability of MBIs with youth. The present study contributes to the conversation and the growing literature base on MBIs with youth in non-clinical settings. The sample ( $N = 138$ ) was taken from a public elementary school on California's central coast. Teacher-report data on student levels of attention, hyperactivity, and prosocial behavior were collected at three time points throughout the school year (Fall, Winter, and Spring). A mixed between-within ANOVA was conducted to examine main effects on each dependent variable as well as interaction effects and main effects on each of the four grouping variables (age, sex, parent-education, and fidelity).

A significant main effect was found for a reduction in attention problems across the three time points. This indicates that students, on average, showed an improvement in their attentional abilities over the course of the school year. This finding is consistent with previous research linking mindfulness practice with gains in attention (Bogels et al., 2008; Schonert-Reichl & Lawlor, 2010; Semple et al., 2010). It is important to note that there was no control group for the present study; and as such, no causal relationship can be drawn from the mindfulness program to these gains. Another important interpretive consideration is that, on average, the students studied were found to have relatively low levels of attention problems to begin the year. As such, gains observed over the course of the school year may have been impacted by the general tendency of this specific population to have stronger

attentional skills. Furthermore, the research on student attention contains support for a wide range of intervention approaches. These include focused cognitive training programs, as well as, accommodations made to classroom material (e.g. adding color to text) and specific teaching strategies (Trout et al., 2007). Additionally the literature shows that student levels of attention may be impacted by myriad factors external to the classroom, such as parenting style, socio-economic status, and mental and physical health (Dvorsky & Langberg, 2016; Schreier & Edith, 2013). Therefore, mindfulness practice should not be implemented as a replacement for other evidenced based means, but incorporated as a complement to a holistic approach that addresses the many factors impacting attention in youth.

A significant main effect was found for a reduction in hyperactivity scores across the three time points. This indicates that students, on average, showed an improvement, i.e. a decrease, in their levels of hyperactivity over the course of the school year. This finding is consistent with previous research linking mindfulness practice with reductions in measures of hyperactivity (Felver et al., 2014; van de Weijer-Bergsma et al., 2012; Zylowska et al., 2008). Similar to the findings on attention, with no control group, a causal relationship cannot be concluded. As such, possible alternative explanations for the observed results pertaining to student maturation or changes in the teachers' perceptions of their students across the school year are not able to be ruled out. Additionally, it is important to note that average scores on the hyperactivity variable indicated that students in the study did not tend to be hyperactive. Consequently, the reductions in hyperactivity observed over the course of the school year may have been influenced by the tendency of the students studied to have relatively low levels of hyperactivity at the start of the study. Furthermore, other research on reducing hyperactivity in student populations has found support for a variety of approaches

including social skills, behavioral, cognitive, educational, and biofeedback based interventions (Denkowski & Denkowski, 1984; Evans et al., 2004; Trout et al., 2007). Considering the many factors that may impact a student's observed levels of hyperactivity and the wide range of well-researched intervention approaches, mindfulness practice should not be implemented as a stand-alone intervention for hyperactivity in youth. Instead, it, and all evidenced-based interventions, should be considered and implemented based on appropriateness for a given population's unique needs and strengths.

A significant main effect was found for an increase in prosocial behavior scores across the three time points. This indicates that students, on average, showed an improvement in their levels of prosocial behavior over the course of the school year. This finding is consistent with previous research linking mindfulness practice with improvements in prosocial behavior (Schonert-Reichl et al., 2015; Semple et al., 2010). However, as noted with the previous two main effects, no causal relationships can be determined. Additionally, average scores on the prosocial behavior variable indicated that this particular student population showed high levels of prosocial behavior at the start of the study. As such, the gains in prosocial behavior observed may have been impacted by the general tendency of the students studied to be in good standing in this domain. An alternative explanation that warrants consideration is that increases in prosocial behavior could be attributed to the normative maturation processes of the children, in the study, aging over the course of the year. Research with elementary school aged youth suggests an overall trend of increased prosocial behavior with age (Nantel-Vivier et al., 2014). Therefore, it is possible the observed gains in prosocial behavior were not due to the intervention, but were instead reflective of the normative developmental trajectory of prosocial behavior.

Further analysis of the grouping variables revealed no interaction effects on any of the outcome measures, suggesting that all groups, on average, reflected the same change, overtime, on measures of attention problems, hyperactivity, and prosocial behavior. Regarding the variable of sex, significant main effects were found for all three outcome measures. These effects indicated differences between boys and girls on average levels of attention problems, hyperactivity, and prosocial behavior. Regarding measures of attention, analysis found that, on average, girls exhibited lower levels of reported attention problems than their male peers. This finding is consistent with previous research on attention in elementary school aged students, suggesting that girls tend to show higher levels of attentional skills than boys (Robbers et al., 2011). Regarding measures of hyperactivity, analysis found that, on average, boys exhibited higher levels of reported hyperactivity than their female peers. This finding is consistent with previous research on hyperactivity in elementary school aged students, suggesting that boys tend to show higher levels of hyperactivity than girls (McLeod & Owens, 2004). Finally, on the measure of prosocial behavior, analysis found that, on average, girls exhibited higher levels of reported prosocial behavior than their male peers. This finding is consistent with previous research on prosocial behavior in elementary school aged students, suggesting that girls tend to show higher levels of prosocial behavior than boys (Nantel-Vivier et al., 2014).

Concerning the variable of parent education, significant main effects were found for the outcome measures of attention problems and prosocial behavior. Specifically, students with higher levels of parent education showed significantly fewer attention problems and greater prosocial behavior than did their peers with lower levels of parent education. Parent education was included in the present study as a proxy for SES status based on the average

earnings gap between individuals who graduated college and those who did not. Research does show a relationship between lower levels of SES and difficulty with attention (Dvorsky & Langberg, 2016; Mani et al., 2013). The literature also contains support for a relationship between lower levels of SES and decreased prosocial behavior (Nantel-Vivier et al., 2014). However, it is important to consider that there is variability within population-based trends, and therefore parent education level may not accurately reflect the SES status of every participating student's family. Additionally, research suggests that there are other factors, such as parenting style or the duration of time spent living in poverty that can mitigate the impact of SES on prosocial behavior and overall psychological well-being (McLeod & Owens, 2004; Nantel-Vivier et al, 2014). As such, results found on this grouping variable should be interpreted with caution.

For the grouping variable of grade, no significant differences were found on any of the three outcome measures, indicating that attention, hyperactivity, or prosocial behavior scores were similar across grade levels. It is possible that no significant differences were found because any within-grade differences were lost in the between-grade analyses. Robbers and colleagues (2011) identified three distinct linear trajectories in attention problems across middle-childhood: stable-low, low-increasing, and high-decreasing. Therefore, children with different attentional trajectory profiles within each grade may have canceled each other out when the grades were examined as a whole. The similarity in prosocial behaviors scores across grade level may also be reflective of the blending of normative developmental trajectories. A longitudinal analysis of 10,700 children identified three developmental trajectories of prosocial behavior (Low, Moderate, and High), which all display a pattern of increasing prosocial behaviors between the ages of 2 to 9 (Nantel-Vivier et al., 2014). After

the age of 9, the Low group begins to show a gradual decline, the Moderate group continues to show a gradual increase, and the High group shows a slowing growth pattern in prosocial behavior. Therefore, it is possible that children with different prosocial trajectories within each grade may have averaged out when the grades were compared as a whole.

For the grouping variable of fidelity, no significant differences were found on any of the three outcome measures, indicating that attention, hyperactivity, and prosocial behavior scores were similar across the three levels of program implementation fidelity. However, several non-significant trends were found. On the measures of attention problems and prosocial behavior, non-significant trends were observed with low- and medium-fidelity classrooms reporting higher average scores compared to their peers in high-fidelity classrooms. On the measure of hyperactivity, a non-significant trend was observed with medium- and high-fidelity classrooms showing lower average scores compared to their peers in the low-fidelity group. It is possible that with a larger sample size, these differences may become significant. Alternatively, no significant differences may have been found because formal mindfulness instruction without home practice may not be enough to elicit observable gains. The research on mindfulness interventions and attention suggests that observed gains are strongly related to the amount of time spent practicing mindfulness (Frewen et al., 2016). For this reason, many evidence based mindfulness programs contain a requirement for participants to commit to practicing mindfulness on their own in-between formal sessions (e.g. DBT, MBCT, MBSR, MindUp, etc.). As such, one explanation for the non-significant finding may be that the five minutes of practice each day in the high fidelity group was still not high enough of a “dosage” to register differences between the low and medium fidelity groups.

An alternative explanation that warrants consideration for the non-significant findings on the grouping variable of fidelity is that the measure itself may be a poor measure of fidelity. At the beginning of the study, fidelity was measured through weekly e-mails with links to logs for the teachers to record the number of days they implemented the program as well as which practice was used on each day. However, responses to the weekly reminders, as well as individualized e-mails to teachers who did not complete their log for the previous week were inconsistent. Therefore, the measure of fidelity ultimately used in the present study was collected at the final time point and consisted of teacher reported averages for number of days per week they implemented the mindfulness program in their respective classrooms. As such, it is prudent to consider possible threats to construct validity related to strategic responding or a potential lack of sensitivity in the measure.

### **Practical Implications**

The findings of the present study contribute to the field's growing understanding and literature base on mindfulness with youth, particularly in school settings. As mindfulness continues to grow in popularity, and its applications continue to spread to non-clinical populations, it is increasingly important to have a robust literature base with empirically effective strategies. Furthermore, the teacher-led approach utilized in the present intervention adds to the conversation a potentially effective method for disseminating mindfulness training to large populations of youth. Specific elements of the program development and methodology offer practical implications for a wide range of interventionists, including school psychologists, mindfulness teachers, and parents.

One primary implication that can be drawn from the findings of the present study is that no one mindfulness practice is inherently more effective than another. Rather, it is the



quality and character of attending to a chosen attentional anchor that promotes growth. Just as classroom teachers differentiate instruction to accommodate different learning styles, mindfulness teachers should also strive to provide instruction in practices that target a diversity of “sensory styles.” For example, youth who are more visually oriented may find it easier to engage in practices rooted in visualization. Alternatively, youth who are sensory oriented may be more able to cultivate the characteristics of mindful attending in practices that utilize physical sensations as anchors (e.g. mindful walking, progressive muscle relaxation, etc.). Additionally, mindfulness facilitators should explicitly encourage their students to reflect on their engagement across a variety of practices and identify their own sensory styles. By frequently communicating with students about this process, facilitators will be able to better tailor their interventions to the unique strengths and needs of their student populations. Finally, in prioritizing instruction on the characteristics of mindful attending instead of a specific practice, students may be better able to generalize these skills outside the context of formal mindfulness lessons, such as when confronted with a ruminating thought or strong emotion.

The findings of the present study also carry implications pertaining to the ability of non-expert mindfulness practitioners to facilitate mindfulness-based programs. Current standards in mindfulness training recommend that facilitators should, also, themselves, be experienced practitioners of mindfulness (Kabat-Zinn, 2003). Clearly, this dynamic is preferred to deliver the highest quality instruction. However, the results observed in the present study suggests that, with proper training and structure, even teachers with minimal mindfulness experience may be able to facilitate a program that is of benefit to their students. This has potentially sizable implications for the future administration of large-scale

mindfulness interventions, particularly in school settings. School-wide interventions led by mindfulness experts are fundamentally constrained by the costs of hiring facilitators, as well as, the time it takes to administer each lesson to a large population. Training and supporting teachers to facilitate mindfulness practices in their classrooms offers an alternative method that avoids the costs and time limitations associated with employing third-party instructors.

Several elements of the methodology utilized for training teachers, as well as the modality of program content, in the present study provide implications for interventionists working within school systems where staff may not be experienced in mindfulness practice. Specifically, program content should be developed by experts and be easily accessible to classroom teachers, regardless of their comfort with technology. The electronic “mindfulness menu” developed for the present study provides an example of this methodological approach that may be helpful for interventionists in school settings. Of primary importance, the content of the menu was comprised of open-source text scripts, audio tracks, and video clips all developed by experienced facilitators of mindfulness. As such, expertise in mindfulness was not necessary for classroom teachers to be able to expose their students to quality mindfulness practices. Additionally, the specific practices were embedded as live links in the menu and could be accessed by teachers through one click. This method is especially recommended for interventionists working with teachers who have varying levels of computer literacy.

Teacher trainings should also focus on providing teachers with the tools to support and supplement program content. School-based interventionists should prioritize instruction during teacher trainings on the characteristics of mindful attending (i.e. compassion and non-judgment) over the teaching of specific practices. As this may be a novel concept for some,

adequate time should be provided for questions and ensuing discussions. Moreover, these discussions could serve as models for teachers to approach similar student questions that may arise in their classrooms. Ultimately, instilling a foundational knowledge of mindfulness philosophy in teachers may increase the likelihood that it becomes transmitted to their students. The “mindful anchors cheat sheet” utilized in the current program is an example of an additional support interventionists can provide for teachers who are new to mindfulness. Trainings should include instruction and modeling on how teachers can use simple phrases that direct their students’ attentions to relevant attentional anchors in order to supplement the daily practices. Especially when teachers notice that their students appear distracted, the use of these complementary cues may be beneficial in helping students reengage with the mindfulness practice. Finally, interventionists should explicitly make themselves available to support teachers throughout the course of program implementation. Since the teachers may not have their own foundations in mindfulness, it is important that the interventionist be accessible to answer questions and help problem-solve any challenges that may emerge.

Ultimately, enabling teachers to facilitate mindfulness programs, through considerations made to program content inclusion and trainings, holds major implications for the administration of long-term, large-scale interventions with the potential to yield widespread impacts for student populations. MBIs led by third-party mindfulness facilitators can be expensive and usually are limited to just a few weeks or months. The teacher-led intervention developed in the present study offers an example of a cost effective alternative that is sustainable across an entire school year. One implication this holds for interventionists should be a priority for the implementation of practices that can be incorporated into a daily classroom schedule. So as to not significantly interfere with valuable instruction time,

considerations should be made to both the length of the practices as well as when they are implemented during the school day. Transitions, such as at the start of the school day or after recess or lunch, may present ideal times to include mindfulness into a daily schedule.

Individual school cultures are unique, and it is therefore recommended that interventionists consult with local teachers and administrators to identify preferred durations and times for the implementation of mindfulness practices at a given school. When students have the opportunity to engage with mindfulness practice on a daily basis throughout the school year, the students may be more likely to realize and sustain any potential benefits of the practice.

Steps taken to include teachers in the development of the present mindfulness program can be informative for interventionists striving to promote teacher engagement and program buy-in. It is important to consider the many demands placed on teachers, including many being required to implement new district-level initiatives each year. Involving teachers in the planning stages of an intervention may be one way to increase their sense of agency, and relatedly, the likelihood that they engage more fully with the program instead of viewing it as a burden imposed by administration. The focus group utilized in the present study offers one example of a good starting point for engaging teachers in the development of the program. One important topic to cover during the focus group is the identification of the unique needs of the school. This conversation can then be used to inform subsequent discussions on how the mindfulness intervention can be tailored to potentially address those needs. For example, if teachers at a given school identify bullying as a prominent issue on their campus, then mindfulness practices that promote compassion may be used more heavily in the intervention. In addition to having an increased sense of agency in the initiative,

teachers may be more likely to adhere to program fidelity if they believe the intervention is addressing specific needs they have identified.

Other topics interventionists should consider addressing during a focus group are the outcome measures that will be included in the study. Especially if teachers are being required to complete survey measures for each of their students, data collection may be the most time consuming element of the intervention. As such, it is likely that the more interested the teachers are in the constructs being measured, the more engaged they might be in the data collection process. This engagement, in turn, carries potential implications for the validity of teacher responses. One way to include teachers in the selection of constructs to be measured is by providing them with psychoeducation on popular outcomes explored in the existing mindfulness literature base. Next, the interventionist should facilitate a discussion to identify at least one construct that is both of interest to the teachers and relevant to the needs of the school. If the interventionist is able to then include a teacher selected construct among the study's other outcome measures, teachers may find more value in the time it will take them to complete these measures throughout the course of the intervention. As such, including teacher input in program development through the use of a focus group may be one way to bolster teacher engagement in both daily program administration and data collection.

The results of the current study also carry implications for parents of elementary aged children. Just as teachers, who were not experts in mindfulness, could be trained, perhaps parents may also be able to be trained and supported to implement mindfulness practices with their children. This carries particular implications for teaching youth methods of coping with ruminating thoughts or feelings and learning how to self-soothe. These are important skills for everyone to learn, and yet they are rarely explicitly taught in schools or at home. Instead,

the majority of children develop their coping styles through an unconscious process of parental modeling during times of stress (Herold, 2016). Since this is an intergenerational process, unless parents have been taught active coping skills, it is likely parents may simply be repeating the passive coping strategies utilized by their parents.

The methodology used in the present mindfulness-training program may present a pathway for supporting parents in actively teaching their children these important skills. Specifically, the collection of open-source mindfulness practice in child-friendly language provides a valuable resource from which parents can draw. Furthermore, the structure and aims of the teacher training utilized in the present study are also applicable in the context of a parent training. Taken together, the child-friendly mindfulness practices utilized in the current intervention paired with training that focuses on the characteristics of mindful attending, may present an effective tool kit to support parents in teaching their children a potentially effective method of active coping.

### **Limitations and Future Directions**

There were several methodical limitations to the present study. One primary limitation was the absence of a control group. At the onset of the study, there was a planned control group drawn from a second public elementary school in the same district as the experimental group. A grant was secured to provide teachers in both groups with gift cards as incentives for completing the study measures. During the first data collection period, teachers at the control group school expressed to their principal that they did not feel that they had the time in their schedules to complete the surveys. As a result, the principal informed the researcher that they would not longer be participating in the study. This change necessitated a methodological shift towards more in depth analysis of within and between group differences

at the experimental school. Consequently, even with controlling for pretest differences, main effects detected on the dependent variables over the course of the study cannot be conclusively attributed to the intervention itself.

Several lessons can be learned through this experience and inform future studies in securing reliable control groups in school settings. Given their busy schedules and the many demands already placed on teachers, one main consideration for future research should be identifying appropriate incentives to compensate teachers for their time. One way that this could be achieved is by conducting a focus group with teachers before a study begins that aims to outline the proposed time requirements of participating in the study and determine suitable incentives. Additionally, including the teachers in the planning phases of the study may elicit a great sense of ownership over the intervention and serve to increase buy-in.

Another lesson this experience highlights is the increased challenge of creating buy-in for teachers at a control group school where the intervention is not taking place. One option for future studies to consider is to use a waitlist control group at the experimental school where the teachers are already invested in the intervention. Alternatively, future research on MBIs in school settings should consider utilizing an active control group that receives an alternative intervention teachers believe would be of benefit to their students. Perhaps teachers in control groups may find completing study measures less intrusive to their busy schedules if they feel the associated intervention is a positive use of their, and their students', time.

The Health-Enhancement Program (HEP; MacCoon et al., 2009) is one example of such an intervention, that serves as a model for future research with MBIs pertaining to the creation and implementation of a matching active control treatment. The HEP was developed

as an active control condition by a group of researchers studying MBSR who wanted to better differentiate between the effects of mindfulness practice and potential benefits gained by engaging in any program believed to promote positive health. As such, the HEP is comprised of four evidenced-based components that have been shown to promote health: nutrition, physical activity, music therapy, and functional movement. Another noteworthy component of the HEP is that it was designed to match the structure and content similarity. For example, the walking meditation component in MBSR is matched with physical activity (e.g. walking, jogging, stretching) in the HEP. Finally, to address the issue of a potential impact on participants that the biases of the group facilitators may have held regarding a preference for mindfulness practice over the active control, careful considerations were made in the selection of both MBSR and HEP teachers. Specifically, instructors in both conditions had to have particular qualifications and be dedicated to the practices they teach. As such, future research on MBIs in school settings that utilize active control groups, can learn from this model by striving to create an intervention that is informed by research promoting positive health, matches the structure of the selected MBI, and is delivered to participants by excellent teachers who are passionate about their respective practices.

Another limitation of the present study that warrants consideration is the construct validity of the measure used to assess program fidelity. At the onset of the study, fidelity was measured through weekly e-mails to teachers with a link to an electronic form on which they would record the number of days they implemented the program in their classrooms and which specific program elements they utilized on each day of the previous week. However, the teachers' responses were inconsistent, and the teachers were non-responsive to the researcher's attempts to bolster participation. As the study progressed, and amount of missing



data on the fidelity variable grew, it became evident that this was not an effective method for measuring program fidelity. In an effort to be able to analyze the impact of potentially different levels of program implementation, fidelity was measured at the conclusion of the intervention through teacher reported averages of the number of days per week they administered the program in their classrooms. This measure is subject to several threats to validity and is not ideal. Mainly, it lacks sensitivity to be able to identify the total dosage of the intervention received over the course of the study (i.e. weeks when the program was administered for fewer or more days than a teacher's reported average). Furthermore, the measure is subject to both potential strategic responding, as well as, issues with accurately recalling classroom practices after a time delay.

Similar to the challenges encountered in eliciting participation with control group teachers, the importance of considering the many demands teachers are facing and identifying appropriate incentives are important lessons that can be learned from the failed initial measure of fidelity. Future school-based studies of MBIs should consider offering greater financial incentives along with explicit expectations for teacher participation. Perhaps the creation of a written contract that teachers sign at the onset of the study could promote consistent participation in program requirements, including the completion of weekly fidelity reports. Another important consideration for future research utilizing this method of collecting fidelity data is the potential variability in teacher levels of computer literacy. One option to address this is for researchers to deliver paper copies of the measure to teachers' mailboxes each week. In addition to the paper form being more accessible to all teachers, there may be added benefits from increasing the regular contact that the researcher has with the teachers. Perhaps, in delivering and collecting the measures each week, the researcher

may be able to increase participation by modeling for the teachers the importance of completing the weekly fidelity measure.

The logistics of gathering socio-economic demographic data presented another limitation of the present study. The challenge that emerged was the arduous, and ultimately unattainable, task placed on school officials to extract student demographic data from their school records on only the students for whom consent had been obtained. This process was further complicated by the fact the school district had also changed student data system providers. Consequently, records in the old system could not be accessed directly by school officials. Instead, records had to be requested from the previous data system provider and their employees would then have to extract the individual data points requested. The school did have access to reported levels of parent education for each student. Informed by the established differences in average earnings for individuals with and without a college degree, this variable was included in the study as a proxy for socio-economic status. While still able to provide insight into between-group differences on outcome measures by levels of parent education, the variable was not an ideal proxy for socio-economic status. As previously discussed in the review of key findings, there are several other factors that make it likely parent education level may not accurately reflect the socio-economic status of every participating student's family.

Several lessons for future research in school settings can be learned from the challenges encountered in obtaining demographic data. Mainly, it is important to consider the amount of logistical work required by school officials to extract demographic data that the school has already collected. Just as with properly incentivizing teachers to complete required measures, school officials and administrative assistants should also be appropriately

compensated for the time it takes to sort through and prepare their existing data.

Additionally, future researchers in school settings may want to consider directly collecting necessary demographic data instead of relying on existing school records. One method to accomplish this could be through the use of paper surveys of demographic data, which are presented to parents at the same time as the study consent forms. Specifically regarding the assessment of socio-economic status, two methods used elsewhere in the literature warrant consideration. The first method is to collect caregiver reports of their family's annual income (McLeod & Owens, 2004). This approach is applicable when brevity of the measure is a priority. A second method found in the literature that is more time consuming, but also provides more nuanced information, is the Hollingshead Four-Factor Index of Socio-Economic Status (SES-Child; Hollingshead, 1975). This measure is intended for administration with caregivers of children ages 6-17 years old, and it produces a total parental SES score derived from the following four domains: marital status, employment status, educational attainment, and occupational prestige. As such, this measure is able to account for some of the other factors that impact SES beyond annual earnings. For future research, where brevity of study measures is not a concern, this method is preferred.

The lack of student reported measures is another methodological limitation of the present study. While teachers are able to observe and report on classroom behavior, their responses to study measures are still subject to many factors that cannot be controlled for, such as inherent biases about the students or even the research project as a whole. Directly assessing students would be one way for future research to avoid this potential threat to validity. Along these lines, one specific measure that future school-based research on MBIs should consider including is the Mindful Student Questionnaire (MSQ; Renshaw, 2017). The

MSQ is a 15-item, self-report measure that utilizes a four-point Likert scale with response options: *Almost Never*, *Sometimes*, *Often*, and *Almost Always*. The MSQ is comprised of the following three subscales: Mindful Attention (e.g. “When I am at school, I notice when my feelings change from good to bad”), Mindful Acceptance (e.g. “When I am feeling bad at school, I still am kind to myself”), and approach and persistence (e.g. “When I am doing something hard at school, I try to work and work to get it right”). The measure has also been found to meet reliability and validity standards (Rensahw, 2017). Another strength of the MSQ is that its development was grounded in theory and prioritized the use of school-specific wording. Therefore, it is recommended that future school-based research on MBIs consider incorporating the MSQ to better understand the potential impact of an intervention on student levels of mindfulness.

Computerized neurological measures of attention present another domain of direct measurements that future research on MBIs should consider. One such measure that both appears in the literature with MBIs is the Attention Network Task (ANT; Fan et al., 2002). The ANT is grounded in Posner and Peterson’s (1990) neurocognitive model of human attention. A main component of this model is the division of the attention system into three distinct networks: alerting, orienting, and executive control. Accordingly, the ANT is comprised of three subtests, each designed to test a different attentional network. By measuring response times during the different tasks, the ANT produces efficiency scores for each attentional network.

The alerting network is measured by examining the impact a warning signal has on participant response times to a stimulus. The orienting network is measured by examining the impact on response time of providing cues that indicate where a target will appear. Finally,

the executive control network is measured through the classic flanker task. Participants are shown an image of three arrows and instructed to respond by pressing the corresponding key to the central arrow. Reaction times as well as accuracy are evaluated across conditions where the target arrow is surrounded by neutral, congruent, or incongruent flankers. Moderate to high reliabilities have been identified for all networks (Fan et al., 2002). One strength of the ANT for use with student populations is that it is a non-verbal assessment, and can therefore be used across a wide range of ages and language abilities. Another noteworthy asset of the ANT is that it can be downloaded at no cost onto any computer. This may be especially beneficial to researchers working in schools with computer labs where the assessment can be administered simultaneously to entire classes.

Finally, the present study was conducted with a majority Latatinx population of students attending a public school in central California, and findings should be generalized to other elementary aged students with caution. Additionally, the students studied tended to be in good standing, and were observed at the onset of the study to have relatively low levels of attention problems and hyperactivity with high levels of prosocial behavior. Especially given the dearth in the literature pertaining to MBIs and youth, it is important for future research in this domain to be conducted with larger sample sizes in a wide array of school settings. Among other factors, consideration should be given to the diversity of schools (i.e. public or private), communities (i.e. urban or rural), and student populations (i.e. cultural identities). Similarly, future research should also examine the impact of MBIs on student populations with differing levels of pre-test functioning on outcome measures. An inherent challenge of conducting research in natural settings, such as schools, is that there is a limit to the number of variables that can be controlled. Given the complexity of school-systems, it is always

possible that factors outside a study's parameters may be impacting results. As such, more research is needed before conclusions can be confidently drawn about the applicability of school-based MBIs for elementary aged youth.

### **Conclusion**

The present study sought out to evaluate the impact of a novel school-based mindfulness program for elementary-aged students. The intervention was conducted school-wide over the course of an entire school year. Teacher-reported data was collected and examined on student levels of attention problems, hyperactivity, and prosocial behavior. Data analysis revealed significant reductions in attention problems and hyperactivity, as well as increases in prosocial behavior, over the course of the year for students receiving the intervention. Furthermore, significant between-group differences were identified for sex on all three dependent variables. Specifically, compared to their male peers, female students were found, on average, to exhibit lower levels of attention problems and hyperactivity, and greater levels of prosocial behavior. Significant between-group differences were also identified on the grouping variable of parent education for measures of attention problems and prosocial behavior. Children with parents who had earned a college degree exhibited significantly fewer attention problems and greater prosocial behavior than did their peers with parents who did not obtain a college degree. In reviewing the current literature on MBIs, there is currently a need for more research conducted with youth, especially non-clinical samples. Results from the present study help to fill this gap and contribute to the emerging conversation regarding the applicability of MBIs for youth, particularly in school settings.

The methodology utilized in the present study also carries practical implications for interventionists and others working with youth. Namely, it seems that non-expert

mindfulness practitioners can be successfully trained and supported to facilitate effective MBIs for youth. This offers significant support and potential guidelines for the administration of future large-scale, school-based interventions, which have the potential to impact a larger population of students than do smaller interventions led by mindfulness experts. It is important to note that the study is limited by the absence of a control group. As such, the improvements detected on the study's dependent variables cannot confidently be attributed to intervention itself. Especially, considering the relative dearth in the literature pertaining to MBIs with youth and the increasing popularity of mindfulness-based practices outside of clinical settings, more school-based mindfulness research is clearly needed to support its growing use with student populations.

The surging popularity of mindfulness practice is nothing new, as it has existed throughout human history for thousands of years. The duration of its use, as well as the ubiquity of its presence across ancient spiritual traditions, suggest that mankind has long realized the benefits of mindfulness practice. Therefore, it is not surprising that as it has come under the microscope of Western sciences in recent years, we are now also seeing empirical support emerge for a wide range of positive outcomes pertaining to both mental and physical health. At its core, mindfulness practice offers individuals a pathway for interrupting automatic thoughts and feelings through connection to the present moment. In a society that is continuing to be distracted by technology and inundated with information at such a rapid rate, the ability to connect to the present moment is becoming more elusive. The practice of mindfulness offers a potential solution for those seeking to focus on the here and now.

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## Appendix A

### Mindfulness Evaluation Measure

#### Attention Problems Scale\*

- Listens to directions
- Is easily distracted from class work
- Has a short attention span
- Listens attentively
- Is easily distracted
- Pays attention

#### Hyperactivity Scale\*

- Listens carefully
- Acts out of control
- Acts without thinking
- Disrupts other children's activities
- Has trouble staying seated
- Interrupts others when they are speaking

#### Prosocial Behavior Scale\*\*

- Follows the classroom rules
- Follows the playground rules at recess and lunchtime
- Listens when teacher is talking
- Is nice to other students
- Is respectful to the adults at school

\* All items rated on a 4-point Likert scale with response options: Never, Sometimes, Often, and Almost Always

\*\* All items rated on a 4-point Likert scale with response options: Almost Never, Sometimes, Often, and Very Often

## Appendix B

### 2016-17 Canalino Mindfulness Project Resource Sheet

#### Monday: Belly Breathing

Scripts	Videos	Audio
<ul style="list-style-type: none"> <li>• Belly and Deep Breathing (Focus)</li> <li>• Belly Breathing (IHS)</li> <li>• Brief Belly Breathing (IHS)</li> <li>• Belly Breathing (WebMD)</li> <li>• Calm Breathing – Bubble Blowing</li> <li>• Time to Breath (Mindful Teachers)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Counting Breaths</a></li> <li>• <a href="#">Sea Otter Cove</a></li> <li>• <a href="#">Sesame Street: Belly Breathe</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Sitting Still Like a Frog: Exercise 2 - The Little Frog</a></li> <li>• <a href="#">Breathing Meditation (UCLA)</a></li> <li>• <a href="#">Sitting Still Like a Frog: Exercise 3 - Attention to the Breath</a></li> </ul>

#### Tuesday: Body Scan

Scripts	Videos	Audio
<ul style="list-style-type: none"> <li>• Body Scan (2bpresent)</li> <li>• Body Scan (Blissfulkids)</li> <li>• Body Scan (Mindful Teachers)</li> <li>• Stress Bot (Kidsrelaxation)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Body Scan (GoZen!)</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Body Scan (BC Crisis Centre)</a></li> <li>• <a href="#">Body Scan Meditation (UCLA)</a></li> <li>• <a href="#">Body Scan (Little Meditators)</a></li> </ul>

#### Wednesday: Progressive Muscle Relaxation

Scripts	Videos	Audio
<ul style="list-style-type: none"> <li>• Progressive Muscle Relaxation for Younger Children (Focus)</li> <li>• Relaxation Script for Younger Children (Fitzgerald)</li> <li>• Progressive Muscle Relaxation (IHS)</li> <li>• Progressive Muscle Relaxation with Quick Tense &amp; Relax (AnxietyBC)</li> <li>• Relaxation-Decrease Fidgeting (IHS)</li> <li>• Giant Strides (Mindful Teachers)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Progressive Muscle Relaxation (Bridge the gAPP)</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Sitting Still Like a Frog: Exercise 4 – The Spaghetti Test</a></li> <li>• <a href="#">The Mindful Tree (meditationkids)</a></li> </ul>

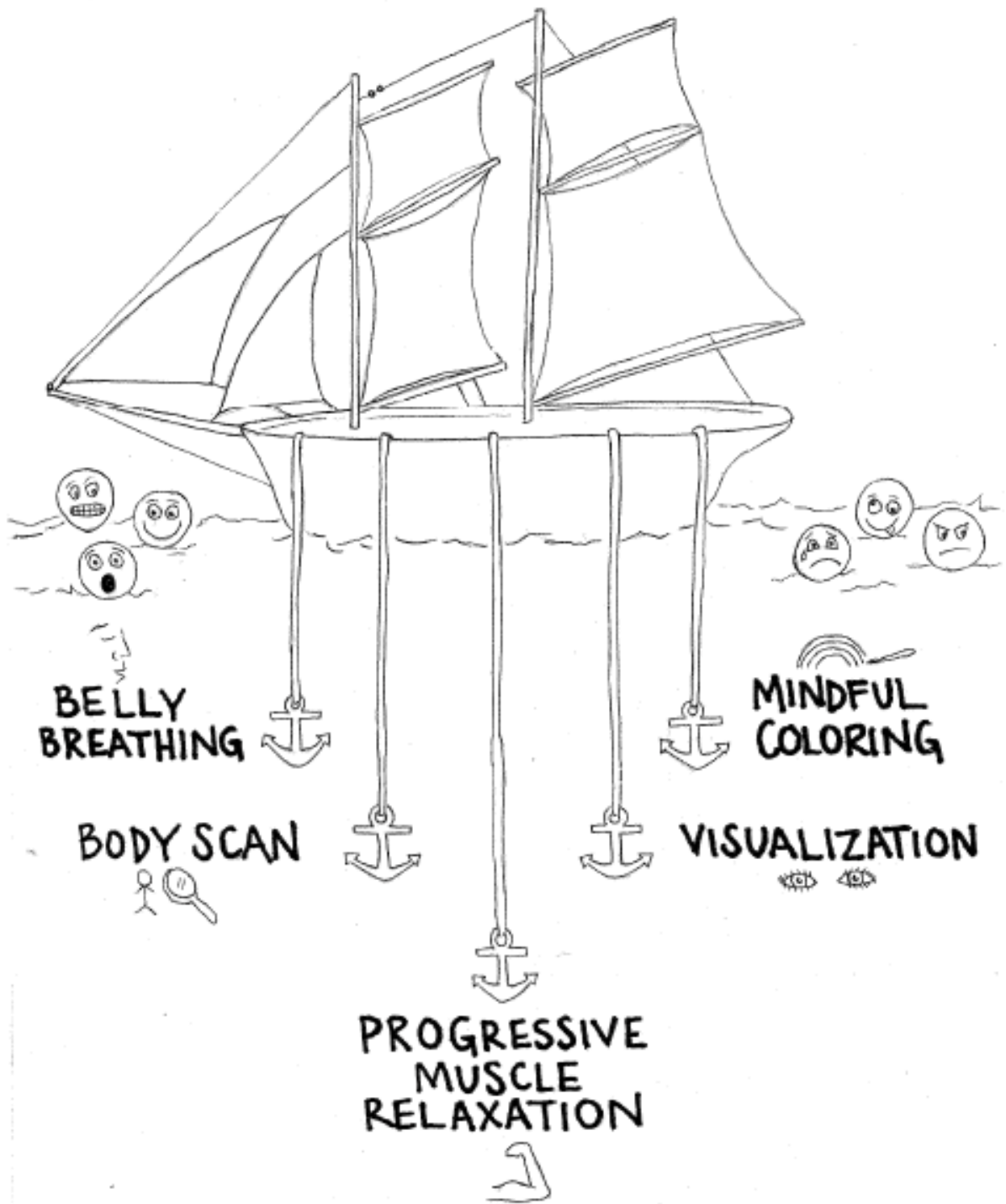
#### Thursday: Visualization

Scripts	Videos	Audio
<ul style="list-style-type: none"> <li>• A Healing Garden (Reznick)</li> <li>• Beach Visualization (IHS)</li> <li>• Beach Visualization (Focus)</li> <li>• Calming Colors (IHS)</li> <li>• Floating on a Cloud (IHS)</li> <li>• Forest Visualization (IHS)</li> <li>• Guided Imagery (Focus)</li> <li>• Peaceful Meadow (IHS)</li> <li>• Peaceful Place (IHS)</li> <li>• Peaceful Waves (IHS)</li> <li>• Protective Light (IHS)</li> <li>• Starry Sky (IHS)</li> <li>• Summer Clouds (IHS)</li> <li>• The Big White House (TMW)</li> <li>• The Magic Shell (TMW)</li> <li>• Wildlife Sanctuary (IHS)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Still Quiet Place (GoZen!)</a></li> <li>• <a href="#">Magic Carpet Ride (YouthfulYogis)</a></li> <li>• <a href="#">Loving Kindness Visualization (MC)</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Enchanted Forest (Robertson-Jones)</a></li> <li>• <a href="#">Sitting Still Like a Frog: Exercise 7 - A Safe Place</a></li> </ul>

#### Friday: Mindful Coloring

\*See age appropriate mindfulness coloring templates on Google Drive.

Appendix C





## Appendix D

### Abdominal Breathing Script (Focus Family Resiliency Training)

Take several deep breaths. In 1, 2, 3, out 1, 2, 3.

Breathe in through your nose and out through your nose. If you have difficulty breathing out through your nose, you can exhale through your mouth.

In 1, 2, 3, out 1, 2, 3. In 1, 2, 3, out 1, 2, 3.

Notice your breathing. Where does the air go once it is inside your body? Is the air coming into your chest? Or is it coming down into your abdomen?

In 1, 2, 3, out 1, 2, 3. In 1, 2, 3, out 1, 2, 3.

Try moving the air all the way to the bottom of your lungs down into your abdomen. You can put your hand on your stomach. When you are breathing deeply into your abdomen, your hand should rise and fall as you inhale and exhale.

In 1, 2, 3, out 1, 2, 3.

When you breathe deeply, the air comes deeper into your lungs and delivers fresh and rejuvenating oxygen to your muscles all over your body.

In 1, 2, 3, out 1, 2, 3. Keep breathing in slowly and breathing out slowly.

In 1, 2, 3, out 1, 2, 3. Continue breathing deeply into your abdomen and five more refreshing breaths.

1  
2  
3  
4  
5

**Deep Breathing Script - for use after abdominal breathing is mastered  
(Focus Family Resiliency Training)**

Sit or lie in a comfortable position.

Take several deep breaths. In, 1, 2, 3, out 1, 2, 3.

If you want, you can close your eyes. Relax. Breathe in through your nose and out through your nose. In 1, 2, 3, out 1, 2, 3. In 1, 2, 3, out 1, 2, 3. When you breathe in, bring the air all the way down into your abdomen. In 1, 2, 3, out 1, 2, 3.

Notice your breathing. In 1, 2, 3, out 1, 2, 3.

Keep breathing in slowly and breathing out slowly.

As you breathe in, picture the air coming into your mouth, down into your lungs. The air is swirling around and dancing through your lungs.

Now continue to breathe in. And out. Imagine the oxygen crossing out of your lungs and into the rest of your body. Picture the oxygen all over your body.

Breathe in slowly and exhale slowly.

As oxygen is delivered to all of your muscles and organs, any toxins or waste products are picked up and pushed back out of the body. Imagine these toxins coming back into your lungs. Up and out of your mouth with every exhalation.

Continue to breathe deeply. In 1, 2, 3. With nutrients and oxygen for your lungs and muscles.

And exhale. Blowing out all of the toxins and waste from your body.

This time when you inhale, picture the air traveling up into your head. It will deliver all of the healthy and refreshing oxygen to your brain. And on its way back out, it will take with it any negative thoughts or stress. All of that stress disappears as you exhale. 1, 2, 3.

Continue breathing, delivering nutrients and getting rid of negativity for five more breaths.

- 1
- 2
- 3
- 4
- 5

**Time to Breathe** is a mindfulness practice that was developed by Mindfulness Without Borders.

### **Introduction**

A first step to developing more mindfulness in your daily life is learning new ways to pay attention and connect to experiences in the moment. One easy way to bring your awareness to the present moment is developing a consistent breathing practice. We call this core mindfulness practice "time to breathe."

### **Time to Breathe Steps**

- Sit in a comfortable position. Allow both soles of your feet to connect to the floor.
- Rest your hands on your thighs and let your shoulders drop.
- Gently close your eyes or look for a reference point somewhere on the floor where you can return your eyes when they get distracted.
- Let your spine grow tall and noble like the trunk of a tall tree.
- Take a moment to notice how your body feels as you bring your attention to the flow of your breath. You don't need to breathe in a special way. Your body knows how to breathe.
- Simply notice each breath coming into the body with an in-breath, and leaving the body with an out-breath.
- If you notice your mind is caught up in thoughts, concerns, emotions or body sensations, know that this is normal.
- Notice what is distracting you and gently let it go without judgment, by redirecting your attention back to the breath.
- Keep escorting your attention back to the experience of breathing.
- When you are ready, slowly bring your attention back to your surroundings and let how you feel now guide you.

## **Brief Deep Breathing (IHS)**

### **Introduction**

Proper breathing is an excellent way to manage stress because it stops this negative cycle and calms the body.

Deep breathing not only helps to cure anxiety and stress, it also triggers relaxation.

Breathing too fast and deep causes lightheadedness and numbness or tingling of the extremities. **Here is a way to slow down your breathing while keeping it deep and exhaling fully.**

### **Brief Deep Breathing Script**

Inhale slowly to the count of four (count slowly; to the pace of one-one-thousand, two-one-thousand....). Pause to the count of three.

Exhale slowly to the count of five.

The breathing process goes like this:

Inhale... two, three, four...pause...two, three....exhale...two, three, four five....

Inhale... two, three, four...pause...two, three....exhale...two, three, four five....

Repeat for a minute or two.

### **Belly Breathing (IHS)**

Let's relax right now. First, let your body relax a bit. Reach up, high above your head, stretching your arms... stretching your body very tall. Now let your arms relax. Place them at your sides, loosely.

Do the same thing again, but this time, breathe in as you reach up. Stretch.... and now breathe out as you relax and place your arms at your sides.

One more stretch, arms up, breathing in... and relax, arms down, breathing out.

Just sit now, letting your arms rest at your sides.

See how your breathing can relax you by taking slow, deep breaths. Breathe in.... hold your breath.... and now breathe out, slowly. Breathe in.... and out.

Keep breathing deeply and slowly.

Continue the breathing relaxation for children.

Place one hand on your chest and one hand on your stomach. Feel both of your hands moving up and out as you breathe in... and down as you breathe out. Feel your hands moving with your chest and stomach, gently moving in and out with each breath.

(pause)

Now rest your hands at your sides as you notice the ways you can breathe. Continue the breathing relaxation for children.

Imagine that there is a candle in front of you. You can even hold up one finger in front of your mouth and pretend it is a candle, if you like. As you breathe out, blow the air out through your mouth very slowly. Feel the air on your finger. Imagine that you are blowing enough air to make the flame of the candle flicker, but not enough to blow it out. You will need to blow very softly.

When you breathe in, imagine that the flame of the candle flickers and leans toward you. As you breathe out, the flame flickers and leans away.

Imagine the flame of the candle moving in and out with each breath you take. Continue the breathing relaxation for children.

(pause)

Another way your breathing can relax you is to breathe like different animals. Do you know how a dog pants? Breathe in.... and now as you breathe out, pant, ha ha ha ha ha ha ha. Breathe in.... pant, ha ha ha ha ha. Breathe in... pant.

Imagine that you are like a cat purring. Breathe in... and as you breathe out, purr. Breathe in.... purr. Breathe in... purr.

Now as you breathe, you can sigh, and relax. Breathe in.... and sigh as you breathe out. Breathe in.... sigh. Breathe in.... sigh.

Just relax now for a moment, feeling your body relax. Your arms and legs are very loose and relaxed. Continue the breathing relaxation for children.

Now you can imagine that your body is like a balloon filling up as you breathe in, and emptying as you breathe out. Let your ribs expand out to the sides, like a balloon, expanding... and then let the air out, like a balloon that is emptying. The balloon expands.... and then the air goes out.

You can even imagine that you are blowing up a balloon. Imagine that you breathe air into your lungs, and then when you breathe out through your mouth, imagine that you are blowing up a balloon. Each breath you blow out makes the balloon get even bigger. Imagine filling the balloon as it gets bigger and bigger with each breath out. Breathe in... and then blow up the balloon even more. Bigger... bigger.... bigger.

Imagine letting go of the balloon, so it flies around the room as the air escapes. Feel your body relaxing just like a limp, empty balloon. Continue the breathing relaxation for children. And now, see how slowly you can breathe out. First breathe in.... and now breathe out very slowly... out... out.... out. When you can't breathe out any more air, breathe in again, and then very slowly breathe out.

For the next few moments, just relax, resting. It feels good to relax. Enjoy this calm feeling.

(pause)

Now you are finished this breathing relaxation for children. Stretch your muscles if you want to, and let your body wake up. When you are totally awake, you can get back to the rest of your day.

## **Calm Breathing-Bubble Blowing**

### **Why is calm breathing important?**

When your child is feeling anxious, his or her breathing will change. When we are anxious, we tend to take short, quick, shallow breaths or even hyperventilate.

- This type of anxious breathing can actually make the feeling of anxiety worse!
- Doing calm breathing can help lower your child's anxiety, and give him or her a sense of control.
- Calm breathing is a great portable tool that your child can use when feeling anxious, especially in situations when you are not there to help him or her through it.

### **How To Do It**

#### **Step 1: Explaining calm breathing to your child**

This is a tool your students can use anywhere, anytime! Other people will probably not even notice when your students are using this tool. For older children and teens, explain that taking short quick breaths actually increases other feelings of anxiety (e.g. heart racing, dizziness, or headaches). Calm breathing will slow down his or her breathing.

#### **Step 2: Teaching the calm breathing technique**

- Take a slow breath in through the nose (for about 4 seconds)
- Hold your breath for 1 or 2 seconds
- Exhale slowly through the mouth (over about 4 seconds)
- Wait 2-3 seconds before taking another breath (5-7 seconds for teenagers)
- Repeat for at least 5 to 10 breaths

### **Calm Breathing for Younger Children: Bubble Blowing**

A fun way to teach your younger students how to do calm breathing is the “bubble blowing” technique. Using a toy soap bubble container and wand (available at any toy store), have your child practice blowing bubbles. The breathing required for blowing soap bubbles is the same as what is used for calm breathing. Simply make sure your child waits a second or two before blowing another bubble. Then practice “blowing bubbles” without a bubble wand.

**Important Hint:** Although “bubble blowing” is a great way to practice calm breathing, it is important to remind your child that he or she is doing this to learn how to breathe calmly. In other words, do not simply ask your child to blow bubbles without explaining this tool is used to help to manage anxiety.

Here's a script of how to introduce bubble blowing to your young child

#### **Talking about bubble blowing**

“Today we are going to practice a new skill called calm breathing. This will be a new tool that you can use when you feel anxious, such as when you are at school. When you use calm breathing, you take slow breaths. A good way to practice it is to do some bubble blowing, because you have to take a slow, deep breath to make a big bubble, and you have to blow the

bubble really slowly or it will pop! So let's practice. Take a slow, deep breath in, hold it for a second, and then slowly blow some bubbles. Good job! Now let's try that again."

### **For Older Children and Teens: Belly Breathing**

Since calm breathing involves taking slow, controlled breaths from the diaphragm, another way to explain this technique is to present it as "belly breathing". The steps for this exercise are as follows:

- Inhale slowly for 4 seconds through the nose.
- Ask your child to pretend that he or she is blowing up a balloon in the belly, so your child's belly should inflate when inhaling.
- Wait 2 seconds, and then slowly exhale through the mouth. Ask your child to pretend that he or she is emptying the balloon of air, so the tummy should deflate.
- Wait 2 seconds, and then repeat.

**Helpful Hint:** When belly breathing, make sure your child's upper body (shoulders and chest area) is fairly relaxed and still. Only the belly should be moving!



## **Belly Breathing (WebMD)**

### **Introduction**

Sometimes when you feel mad or sad, you don't know how to feel better. That feeling is called stress. Stress can make your body feel tight, too. Your body feels like the muscles are squeezing together. Feeling stress a lot of the time is not good for your body.

Why is it good to know what stress feels like? Because if you know how stress feels, then you can make it go away. When stress goes away, your body feels better and you feel happy.

How do you make stress go away? Here is one thing you can do when you feel stress. You can try belly breathing. Belly breathing is when you take deep breaths. You breathe so deep that you feel it in your belly. Belly breathing can help you relax. Belly breathing can make your body stop feeling squeezed. Belly breathing can help you feel better. Try it!

### **How to Do Belly Breathing**

Try belly breathing the next time you feel sad or mad. Deep breaths like this can help make stress go away.

- 1) Lie on your back. Close your eyes. Put your hands on your belly.
- 2) Keep your mouth closed. Breathe slowly through your nose. Count to 8 in your head while you breathe in.
- 3) Hold that air in your body while you count to 2 in your head.
- 4) Slowly let the air out through your mouth or nose.

Try it now. Breathe in through your nose. Hold the air in your body. Slowly let the air out.

What did you feel your belly do? Your belly should go up and down when you take deep breaths. That is why it is called belly breathing!

Taking deep breaths can help make stress go away. Taking deep breaths may help you feel happy. Taking deep breaths is good for your body, too.

### **Tips for Teachers**

This activity is appropriate for kids ages 3 to 7.

When doing this deep-breathing exercise, make sure your students feel comfortable. Have them lie down or sit comfortably. Count softly for them while they slowly inhale, hold, and exhale. Remind them to feel their bellies moving. Have them keep taking deep breaths until their bodies relax.

## **Body Scan Script (2bpresent)**

Let's begin by lying down in a comfortable position on the floor, with your arms resting gently on the ground, and your eyes closed. Feel the weight of your body as it rests on the earth. Feel the earth supporting you. Feel your feet resting firmly on the ground. Pretend that you are an ice cream cone on a hot summer day and simply melt into the ground. Rest your attention only on the sound of my voice. Let all of the other sounds in the room fade away.

I am going to lead you on a scan of your body as a way of getting centered and relaxed – a reminder that you can be at home and at peace in your own body.

Start by settling your attention on your feet. Feel the weight of your feet as they rest on the earth. Notice the position of your feet, the sensations inside the feet, travel along the bottom and tops of your feet to your toes. Just notice what you feel there. . . . Notice each toe and move your attention from toe to toe noticing how they feel. Notice the space between the toes.

Now bring your attention to the tops of your feet and then to your ankles. Bring your attention up your shins and around to your calves. Notice how the backs of your legs feel. Now, bring your attention to your knees, the front of your knees and the back of your knees. Notice how they feel.

Bring your attention to your thighs, the front of your thighs and the back of your thighs. Now move your attention up to your hips and see what sensations you feel there. Notice how your lower back is resting on the earth.

Move your attention to the back body, to the lower back, to the mid back, to your shoulder blades. You may feel stiffness or tension, whatever you encounter, simply notice it.

Keep moving your attention around to the front of your body, to your abdomen and rib cage. Notice how that feels as you inhale and exhale. Slowly move your awareness to your chest, noticing any sensations you find there. Notice the lungs themselves, as you breathe . . . Does the breath reach into all areas of the lungs? Notice the heart itself, and the sensations and movements within the heart. Notice how it feels. . .

Move your attention back to the tops of your shoulders. Slowly move your awareness down the upper arms, feeling your elbows, your forearms. Let your attention rest for a moment on

your hands – the palms of your hands . . . the backs of your hands. See if you can feel each separate finger, each fingertip. . . .

Slowly move your attention back up to the top of the hands, back up the arms to your shoulders and neck. Notice your neck and your throat. Notice any tension or tightness . . . notice the feeling of breath as it passes in and out with ease.

Bring your awareness slowly up to the front of your face. Be aware of what you encounter. Tightness, relaxation, pressure. Turn your attention to your eyes as they gaze inward, and feel the weight of your eyelids as they rest over your eyes . . . Move your attention to your nose. Notice the feeling of air as it passes through your nostrils. Is it warm or cool? Feel your cheeks and your jaw. Is your jaw clenched or loose? Just notice what you are feeling and continue to breath through these sensations. . . .Feel your mouth, your teeth, your lips, the light pressure of skin on skin, softness, coolness.

Bring your attention to the back of the head, over the curve of your skull, notice your ears as they buffer the sounds of the room. Now, bring your attention to the top of your head and simply feel whatever sensations are there—tingling, pulsing or the absence of sensation.

Now bring your body as a whole into your awareness, and take a moment to scan through your entire body. Allow your breath to become more full, taking a few deep breaths. . .

As you end the meditation see if you can continue to feel the world of sensations and all of its changes, moment by moment, as you move into the activities of your day.

Gently and gradually regain awareness of your surroundings. When you feel ready, open your eyes.

## **Body Scan (Blissfulkids)**

### **Introduction**

Emotions are not just experienced as an attitude; they can be felt in the body.

Have you ever had a sinking feeling in your stomach? Have you felt the weight of stress on your shoulders? When we are busy, we often forget to pay attention to our emotions – we become out of touch with our emotional experience.

Often by the time we find out that we're in a bad mood it's already too late, but you can learn to notice negative moods before they escalate. This way you can do something about it before it's too late.

If stress tends to show up in your shoulders, you can counteract it by checking your shoulders to catch the signals of surging stress. The more we pay attention to how our body feels, the more we can pick up on subtle moods. The body scan teaches us to do this.

You can also learn to notice, nurture, and enjoy positive feelings. If you notice a good feeling in your body, an expansive feeling in your chest, or a general lightness in your body, you can tune in to it and stay with it for a while. Allow yourself time to really recognize these moments.

### **Body Scan Script**

Start at the top of the head, and tell them to think about how different parts of their bodies “feel,” moving down the body from their head to their toes as the activity progresses.

You might ask things like: How does your hair feel? What about your forehead? What's happening with your ears today? Are they feeling like ears?

Then suggest they bring their attention to the shoulders. Tell them to think about how they might move a little as they breathe in and out. And so on and so forth, all the way down to their toes.

**When it's over**, ask the students to think about how it felt during the exercise and how they feel now.

### **Body Scan Tips**

Some of these questions may elicit giggles from the students; they probably never thought about what their hair “feels like.” This is why it's a fantastic idea to provide a model of your own before asking them to participate. As you think aloud, use relatable words. For example, you might say, “My hair feels soft and twisty” or “Today my forehead is a little tingly in the middle.”

## **Body Scan (Mindful Teachers)**

### **Body Scan Script**

Lie flat on your back. Place your feet slightly apart, letting your toes fall to the sides. Place your arms by your sides, palms up.

Bring your awareness into your left foot. Breathe in, imagining that you are breathing in through your left foot, all the way up your body. Breathe out, imagining that you are breathing out all the way through your body, through your left leg and out through your left foot. What sensations (if any) are you feeling in your left foot right now?

With your next breath out, shift your awareness to your left ankle, noticing any sensations there. Continue to breathe mindfully, bringing your awareness up your leg to your calf, your shin, and your knee.

There is no ‘right’ or ‘wrong’ way to do this practice, but here is the order I like to use:

- Left foot
- Left leg
- Right foot
- Right leg
- Abdomen & belly
- Upper body, chest, & shoulders
- Back
- Hands & arms
- Head & face

Then bring your awareness to your body as a whole:

- Does it feel the same or different than when you started the body scan?
- Are there any parts of your body that still feel tense or that need extra care?

The purpose of the body scan is not necessarily to relax or to go to sleep, although it can help with that sometimes. The important thing is that you stay open and curious to your body's experience.

## **Stress Bot (Kidrelaxation)**

### **Introduction**

Try out this fun way to engage your child in doing frequent body scans to determine where the tension lies within the body. Play Stress Bot. You, teacher, get to be the Stress Bot, who specializes in helping kids scan for stress and tension in the body. Introduce your students to the concept of the Stress Bot and explain that you and the Stress Bot are going to help him find places of stress or tension in his body. Now, adopt your best “robot voice” and guide your child using the following script:

### ***Full Stress Bot Script***

*Assume comfortable position. Begin to turn your eyes and ears inward to listen to the body and pay attention to how you are feeling. Breathe slowly in and out. Repeat. In and out. Excellent work. Bring your attention to your toes on your left foot. How do they feel? Now check your left ankle. Can you feel it? If not, wiggle it a little bit. Now check in with your left leg. Is there any stress or tension there? Breathe. Imagine that you are releasing any tension that you find, like pulling the lid off of a jar of steam. Good! Let's focus on the toes of your right foot. Wiggle them a bit. How do they feel? Let go of any tension that you find. Now your right ankle. Now pay attention to your right leg. Breathe. Relax. Excellent!*

*Now we check in with your lower back. How is your back touching the floor or chair? How does your stomach feel? Any time you find some stress, just let it go, like a puff of steam into the air. Good. Pay attention to the back of your neck. How does it feel? Check in with your head. Does it feel light or heavy? Feel your ears, the roots of your hair, your forehead, your cheeks. Can you feel your teeth? How do they feel? How does your tongue feel inside your mouth? Feel the top of your head. Breathe. Relax. Did you find tension anywhere? If so, just allow it to melt into the floor, to fall away from you. Now sit quietly for a few seconds. Check out your whole body. Imagine a cloud of relaxation is ready to swish right over all of you, taking with it any stress or tension that you found. Great work!!!! Now you know just where stress or tension likes to hide in your body.*

### **Optional Debrief**

Explain to your students that Stress Bot is always on call to help him scan his body to see if there is tension or stress there. Invite him to call upon Stress Bot any time he is not feeling good to see where the source of the feeling is inside his body. After Stress Bot helps him find the stress, he can use one of his favorite relaxation tools to help get the stress out of his body and begin to feel good and more relaxed.

### **Brief Stress Bot Script**

This quick check-in is excellent for you to use when you are on the go and you would like your students to do a quick body scan or “check in.” Should only be used if students are familiar with Full Stress Bot script.

Quick Stress Bot Body Scan Script, (please stay in character with your *best* robot voice):

*Hands on head. How is it feelings?*

*Hands on heart. How is it beating?*

*Hands together. Calm or shaking?*

*Breathe and do a body scan.*

*Breathe and relax.*

## **Progressive Muscle Relaxation for Younger Children (Focus Family Resiliency Training)**

One way to bring your feelings back into the green is to use breathing and relaxation exercises. Have you ever heard an adult say that they need to count to ten or take a quick time out. These are all ways to calm ourselves down.

Spread out and get comfortable lying on the floor or sitting in a chair, whatever is more comfortable.

Take several deep breathings. In, 1, 2, 3, out 1, 2, 3.

- If you want you can close your eyes and relax.
- Breathe in through your nose and out through your nose. In 1, 2, 3, out 1, 2, 3.
- In 1, 2, 3, out 1, 2, 3.
- When you breathing in, bring the air all the way down into your stomach. In 1,2 3, out 1, 2, 3.
- You can put your hand on your stomach to make sure that you are breathing all the way down to your stomach. Your hand should move up and down with your breath. In 1, 2, 3, out 1, 2, 3.
- Keep breathing in slowly and breathing out slowly.

Feel your body relaxing. Your eyes are feeling heavier and heavier as you keep breathing all the way into your stomach. In 1, 2, 3, out 1, 2, 3.

Keep your breathing slow and steady while you pay attention to your feet. Pretend that you are standing on the beach with your feet in the water. You want your feet to sink deeper and deeper into the sand so you push your feet down as hard as you can. The waves come and wash over your feet. Push, squeeze your toes. Push your feet and toes down into the sand. Now relax your feet.

Here comes another wave. Now try one more time to push your feet into the sand as hard as you can. 1, 2, 3, 4, 5. Now relax your feet.

Keep breathing in 1, 2, 3, and out 1, 2, 3.

Now think about your legs. You are in line to get on a rollercoaster at an amusement park. You need to stand up as tall as possible to be able to ride the rollercoaster. Here comes the lady to measure you to see if you can get on the ride. Stretch your legs as long as possible. Make your legs super long. Stretch, stretch, stretch. You are almost tall enough, but not quite there. The lady walked away. Relax.

Wait, the lady will give you another chance. She's going to re-measure you. Stand as tall as possible and stretch your legs. Keep stretching. Make your legs super long. Stretch. Make them long. And relax.



Now we are going to think about your stomach. Here comes a fuzzy baby bear. He doesn't see you and it looks like he is going to step right on your stomach. Make your stomach as hard as you can to hold the bear up. Keep it really tight. Hold it. Okay, relax. The bear went away.

Wait! Here comes another bear. This one is bigger. A daddy bear. You have to tighten your stomach again. Keep it really tight. So tight it will hold up the bear. Tight. Tight. And relax. The bear moved on so you can relax.

Now we are going to work on our hands and arms. Pretend that you have two small oranges, one in each hand. You have to squeeze the oranges to make orange juice. To do this you are going to have to clench your fists as tight as possible. Start squeezing the oranges. Harder. Keep squeezing. Keep going. Squeeze harder. Feel juice pouring out of the orange. Keep squeezing. Okay, there's no more juice left in the orange. Relax your hands.

We need more oranges. Squeeze the new oranges as hard as you can. Make a fist and squeeze your hand as tight as you can. Some juice is coming out, keep squeezing. Good job. Keep going. Squeeze as tight as you can. Keep going, you can do it. Squeeze. Phew. We are done making orange juice. Relax your hands. Let all the tension leave your hands and arms.

We made some delicious juice. Take a sip of the orange juice. Oh no! It's really sour. Yuck. Your jaw and face squeeze up because it's so sour. Keep squeezing your jaw. Ew. It's so sour. Squeeze your jaw to try to make it go away. Keep going. Ahh, okay. You got the sour taste out of your mouth.

Oh. Wow. Here comes a beautiful butterfly. He's coming over to you, flying around your head and, oh. He landed on your nose. Don't touch him with your hands, you might hurt him. Instead try to get him to move off of your nose by scrunching up your nose and face. Squeeze your face up and move your nose around. Wrinkle your face up really hard. And relax. Feel the muscles in your face relax.

It did not work, the butterfly is still there. His wings are tickling your cheeks. You've got to try again. Wrinkle up your face again. Squeeze it as hard as you can. Squeeze. Wrinkle. Squeeze. Move your nose around. Ah .... that's better, he went away. Relax your face.

Now just relax and focus on how your body feels. Your face was tight but now it's relaxed. Your fists were tight but now your hands feel open and free. Your stomach is nice and relaxed. Your legs and feet too. Your whole body feels relaxed. Whenever you feel your muscles get tight, you can pretend you are squeezing oranges or that a butterfly landed on your nose. This will help your whole body relax. You can open your eyes now, but stay relaxed. Calm and relaxed.

Adapted from Koeppen, A.S. (1974). Relaxation training for children. Elementary School Guidance and Counseling, 9, 14-21.

## **Relaxation Script for Younger Children (Monica Fitzgerald, Ph.D., TF-CBT Training)**

### **Hands and Arms**

Pretend you are squeezing a whole lemon in your left hand. Squeeze it hard. Try to squeeze all the juice out. Feel the tightness in your hand and arm as you squeeze. Now drop the lemon and relax. See how much better your hand and arm feel when they are relaxed. Repeat with other hand.

### **Arms and Shoulders**

Pretend you are a furry, lazy cat. You want to stretch. Stretch your arms out in front of you. Raise them up high over your head. Way back. Feel the pull in your shoulders. Stretch higher. Now just let your arms drop back to your side. Okay kitten, stretch again. Repeat.

### **Shoulder and Neck**

Now pretend you are a turtle. You're sitting out on a rock by a nice, peaceful pond, just relaxing in the warm sun. It feels nice and warm and safe here. Oh-Oh! You sense danger. Pull your head into your house. Try to pull your shoulders up to your ears and push your head down into your shoulders. Hold in tight. It isn't easy to be a turtle in a shell. The danger is past now. You can come out into the warm sunshine and once again you can relax and feel the warm sunshine. Watch out now. More danger. Hurry pull your head back into your house and hold it right. Repeat.

### **Jaw**

You have a giant jawbreaker bubble gum in your mouth. It's very hard to chew. Bite down on it. Hard! Let your neck muscles help you. Now relax. Just let your jaw hang loose. Notice how good it feels just to let your jaw drop. Okay, let's tackle that jawbreaker again now. Repeat.

### **Face and Nose**

Here comes a pesky old fly. He has landed on your nose. Try to get him off without using your hands. That's right, wrinkle up your nose. Make as many wrinkles in your nose as you can. Scrunch your nose up real hard. Good. You've chased him away. Now you can relax your nose. Oops here he comes back again. Repeat.

### **Stomach**

Hey! Here comes a cute baby elephant. But he's not watching where he's going. He doesn't see you lying there in the grass, and he's about to step on your stomach. Don't move. You don't have time to get out of the way. Just get ready for him. Make your stomach very hard. Tighten up your stomach muscles real tight. Hold it. It looks like he is going the other way. You can relax now. Let your stomach go soft. Let it be as relaxed as you can. That feels so much better. Oops, he's coming this way again. Get ready. Repeat.

### **Legs and Feet**

Now pretend that you are standing barefoot in a big, fat mud puddle. Squish your toes down deep into the mud. Try to get your feet down to the bottom of the mud puddle. Push down,

spread your toes apart and feel the mud squish up between your toes. Now step out of the mud puddle.

Relax your feet. Let your toes go loose and feel how nice that is. It feels good to be relaxed. Repeat.

## **Progressive Muscle Relaxation (IHS)**

Get ready to relax. You can sit in a chair or lie down on a bed.

Close your eyes, and take a deep breath in.... now breathe out.

Breathe in.... and breathe out.

Keep breathing slowly like this. Feel how it relaxes you to breathe deeply.

Now squeeze your hands closed into fists. Pretend that you are squeezing a ball in each hand... gripping tighter.... squeeze even tighter.... Right now, your muscles are tense.

And now relax. Let your hands go limp. Now your hands feel relaxed. See how relaxed your hands feel. See how tense feels different from relaxed. Relaxation is a way to make your whole body feel relaxed like your hands are now.

One way to relax your body is by breathing deeply. Imagine that your body is like a balloon. When you breathe in, feel your chest and sides expanding, like a balloon filling with air. When you breathe out, imagine your body is like a balloon shrinking with the air being let out.

Breathe in like a balloon being blown up. Now breathe out, like the air is being let out of a balloon. Let the air out by blowing the air through your mouth.

Breathe in through your nose, imagining your body expanding like a balloon.... and now imagine letting the end of the balloon go, and the air rushing out as you breathe out through your mouth.

As you breathe in this time, raise your arms above your head. When you breathe out, lower your arms.

Breathe in. Reach your hands above your head, stretching high up... stretching.... and now lower your arms to your sides and relax. Breathe out.

Raise your arms and breathe in.... lower your arms and breathe out....

Raise your arms and breathe in.... lower your arms and breathe out....

Now relax and keep your arms at your sides, while you continue breathing slowly and deeply.

Remember the difference between tense and relaxed. Tighten your leg muscles to make both of your legs tense. Squeeze tighter.... tighter... and now relax.

Let your legs become very relaxed. Each leg is as floppy as a piece of string.

Your legs feel heavy. The muscles are loose.

Now tense your arms. Make the muscles very tight and tense. Tighter.... and now relax. Your arms are relaxed, limp and loose as pieces of string.

See how it feels to be relaxed. Your legs and arms are relaxed.

Now let your whole body become relaxed. See how relaxed you can make your body.... loosening every muscle.... no tension at all.....

Your body feels heavy and relaxed.

Relax even more by noticing your breathing again. See how calm your breathing is. In.... and out..... in.... and out...

Keep breathing and simply relax. There is nothing you need to do right now except relax quietly.

(pause)

See how calm and relaxed you feel. It feels good to relax.

Your relaxation time is finished now, and it is time to return to your usual activities. Keep your eyes closed for a little longer while you wake up your body and your mind by wiggling your fingers and toes..... moving your arms and legs.....

Sit still now for a moment, and open your eyes to look around the room.

When you are ready, get up and return to your usual activities, feeling awake, but still feeling relaxed and calm.

## **Progressive Muscle Relaxation with Quick Tense & Relax (AnxietyBC)**

### **Instructions**

*Once your students are sitting comfortably with eyes closed, slowly read the following instructions:*

“Take a deep breath in through your nose...hold your breath for a few seconds...and now breathe out...good...take another deep breath through your nose...imagine your tummy is a big balloon filling up with air...hold your breath...now breathe out and imagine that the air in the balloon is slowly escaping...Now I want you to pay attention to your body and how it feels....

Let’s start with your legs...I want you to stretch out your legs in front of you and point your toes...squeeze the muscles in the top of your legs...now squeeze the muscles in the bottom of your legs...hold it...now relax...let your legs go limp...imagine that your legs are floppy cooked spaghetti noodles...relax all the muscles in your legs...notice how heavy your legs feel... now take a deep breath and hold...and breathe out...

Now, make a fist with your left hand and squeeze...imagine that you are holding an orange and you are squeezing all the juice out of the orange...feel the tightness in your hand and arm... hold it tight...and now relax your hand... notice how your muscles feel when they are relaxed...now make a fist with your right hand and squeeze tight...imagine that your holding a lemon and squeeze all the juice out...feel the tightness in your hand and arm...hold it...and now relax your hand... enjoy feeling relaxed... now take a deep breath and hold...and breathe out...

Let’s focus on your arms...stretch your arms out in front of you like you are reaching out to something...keep stretching...hold it...and now relax...let your arms drop to your sides...imagine your arms are cooked spaghetti noodles that are dangling at your sides...notice how relaxed your arms feel...relax your arms...now stretch your arms up above your head...try to reach for the clouds with your finger tips...hold...keep reaching above your head...now let your arms drop to your sides...relax you arms...let your arms go very floppy...notice how calm you feel... now take a deep breath and hold...and breathe out...

Let’s move to your shoulder... pull your shoulders up to your ears...hold...keep holding...now relax... notice how relaxed you feel... now take a deep breath and hold...and breathe out...

Now, pull in your tummy muscles...imagine that an elephant has just stepped on your tummy...suck in all the muscles in your tummy...hold it...good...now relax...let your stomach out...relax all the muscles in your tummy...notice how your muscles feel when you relax them... now take a deep breath and hold...and breathe out...

Finally, wrinkle up your faces as much as you can...wrinkle your nose...mouth...eyes...forehead...cheeks...and push your lips together...Notice how tight the muscles in your face feel...hold it...good...now relax...let all the muscles in your face go limp...notice how relaxed you feel... now take a deep breath and hold...and breathe out...

Now relax your whole body...imagine you're a rag doll and try and relax all the muscles in your body. Notice how good you feel...so relaxed...so calm...now take a deep breath and hold it...and breathe out...you've done very well! When you are ready, you can slowly open your eyes.”

### **Quick Tense & Relax!**

- After your child has had some time to practice the full version of the muscle relaxation exercise, introduce the *quick tense and relax* strategy.
- In this approach, your child learns how to tense all the muscle groups (for 5 seconds) and then to relax all the muscles in his or her body at one time.
- Your child can do this by taking a big breath, lifting up the shoulders, pushing out the chest and wrinkling up the face. Then, silently saying the word “relax” and letting the whole body go limp like a rag doll. Over time, your child can start to practice this strategy in more stressful situations (for example, in the playground or while in the car).

### **Quick Relax!**

- Once your child has learned to tense and relax the whole body, the next step is to practice relaxing without tensing so that your child can easily use this strategy in a wide range of situations.
- Ask your child to take a deep breath, then slowly let out the breath while silently saying the word “relax” and letting the whole body go limp like a rag doll. If the child wishes, he or she can go through several breaths, each time letting the body become looser and more relaxed after each breath.
- The goal is to help your child develop a quick strategy to help him or her relax in any situation.

## **Relaxation to Decrease Fidgeting (IHS)**

This relaxation script will help you to decrease fidgeting with your hands. This exercise will allow you to reduce anxiety to create a feeling of calm and be still, even when faced with stress.

Find a comfortable position that will allow you to relax for the next few minutes. Adjust your position as needed to get comfortable. You may want to sit or lie down.

Close your eyes, or focus your gaze on one spot in the room.

Get ready to relax, getting comfortable...taking a few deep breaths to relax and center yourself. Allow your breathing to begin to calm you.

Let's take 20 seconds for fidgeting. Fidget and move all you need to for the next 20 seconds.

(Pause)

Now it's time to stop fidgeting. You can use progressive muscle relaxation to start to relax your muscles, and the movement of each exercise will help to decrease the anxious energy that leads to fidgeting.

Begin with your shoulders. Raise your shoulders toward your ears. Hold this tension, holding the muscles of your shoulders very tight. Now, let your shoulders relax...dropping into a comfortable, loose position. Feel your shoulders lowering as the muscles relax.

Squeeze your jaws shut, holding the muscles of your mouth and jaws very tight. Squeeze your eyes closed as well, holding the tension throughout your face. Hold...and now relax. Allow your jaw to drop slightly, letting the muscles of your face and jaw become loose and relaxed. Let the muscles relax completely, and feel a calm, smooth feeling in the muscles of your face.

Point your toes, tensing the muscles in the back of your legs, all the way from your feet...to your knees...to your hips. Hold your legs very rigid, keeping the muscles tight and tense. Feel the muscles becoming tired, wanting to give up the tension...but hold the tension a little longer. Squeeze tighter...and now relax. Release the muscles, feeling the back of your legs relax.



Now bring your feet up toward your knees, tightening the front of your legs, all the way from your feet...to your knees...to your hips. Feel the muscles in your lower legs, very tight and tense, and in your upper legs, holding onto tension. Hold...squeeze tighter...and relax. Wiggle your toes once or twice and feel your feet and legs relaxing completely.

Your legs feel so limp and loose...it is a pleasant, comfortable feeling of relaxation.

Take a deep breath in, feeling the tension in your chest and stomach as you hold that breath...and allow your chest and stomach to relax as the breath escapes slowly.

Allow the muscles of your back to relax...from your neck...to your upper back...middle back...lower back...feeling your whole body relaxing.

Notice any areas of tension in your body, and relax those areas now.

Your body will continue to relax...deeper and deeper...loose...heavy...relaxed.

Now that you are starting to feel more relaxed, focus on your hands.

Let's do some calm, slow, non-fidgeting movements that will help your hands relax. Open your hands wide, stretching...reaching to stretch your arms too...stretching your hands open...and release.

Now close your hands into fists and squeeze them tightly shut...hold...tighter...and release.

Open your hands again...stretching...and then close your hands tightly, squeezing...

Now relax, allowing your hands to go limp. Feel how relaxed your hands are now that you have released the fists you were holding. Your hands may even feel warm and tingly.

Rest your hands at your sides or on your lap. Feel them go completely slack...let the muscles relax entirely...holding no tension in your hands.

Allow a feeling of relaxation to fill your hands. It is such a feeling of calm and steadiness. Feel the stillness in your hands.

Your hands are feeling very heavy...very relaxed. A tingly feeling of relaxation fills your hands. You are feeling so calm.

Each time you get the urge to move your hands, find that they are so heavy...so relaxed...that your hands simply remain still. Relaxing into a feeling of warmth and heaviness.

Imagine that your arms are growing...getting bigger...heavier...

Now imagine that your hands and arms are shrinking back to normal size, but remaining just as heavy.

The heavy feeling is so calm and pleasant.

Now create a picture in your mind. Imagine the color blue. See the most calm, relaxing shade of blue you can imagine. See this color fill your entire mind's eye. Allow this beautiful shade of blue to represent the feeling of relaxation you are experiencing right now.

Every time you start fidgeting, imagine the color blue, and feel a complete stillness descend over your body. Feel your hands rest gently at your sides, and feel your hands and arms becoming warm...feeling very heavy.

Whenever you picture the color blue, you can feel completely calm...serene...and still.

When you see the color blue it can remind you to relax. When you find yourself fidgeting, you can picture the color blue, focus on your breathing, and the fidgeting will stop as you become completely relaxed and calm.

Experience right now a feeling of complete stillness. Imagine being surrounded completely by the color blue...surrounded in a comforting blanket of blue...so calm...so serene...peaceful and relaxed.

For the next few moments, simply focus on your breathing, concentrating on each breath you take. Whenever your thoughts wander or you start fidgeting, imagine the color blue and feel your hands relaxing and becoming heavy.

Concentrate now on your breathing...observing each breath as it moves gently in and out of your body.

If you find yourself fidgeting, just imagine the color blue, and direct your focus again to your breathing as you feel yourself completely relax.

Keep focusing on your breathing, feeling completely relaxed...very calm and still.

If you start fidgeting, it's okay. Just picture the color blue, and feel your body relaxing instantly...becoming so heavy, warm, and still that the fidgeting stops, replaced with calm stillness.

Keep focusing on your breathing...feeling totally relaxed and at ease.

(Pause)

Just relax now...not needing to focus on anything at all.

Relaxed...calm...serene...

A pleasant feeling of stillness...

Whenever you find yourself fidgeting, you can stop this fidgeting quickly with relaxation. When you begin fidgeting in the future, you can squeeze your hands tightly shut, and then release the tension as you picture the color blue. When you imagine blue, you can remember the feeling of relaxation you are experiencing right now, and relax instantly.

When you need to relax in the future to stop fidgeting, imagine the color blue, focus on your breathing, and feel your mind and body become relaxed and still.

Picture the color blue right now, feeling completely and totally relaxed.

(Pause)

Now it is time to finish this relaxation exercise.

Give yourself the time you need to reawaken your body and mind.

Wiggle your fingers, feeling your arms waking up. Wake up your legs by wiggling your toes. Feel the awareness returning to your body and mind as you become more awake and alert.

Stretch if you want to, becoming gradually more aware of your surroundings. Sit quietly for a few moments with your eyes open, reorienting yourself.

When you are completely awake and alert you can return to your usual activities, keeping with you a feeling of calm and stillness.

**Giant Strides: Seating Walking  
(Mindful Teachers):**

This seated exercise will rouse your energy, calm your mind, and improve your well-being.

Some seats make us slump so our back is curled and our chest compressed. Try to sit up as best you can, but don't strain yourself too much.

Slowly lift one foot off the ground. As you raise your foot, stretch your toes up toward you as fully as possible. Breathe in as you raise your foot. Then slowly lower your foot as you breathe out.

Breathe in as you raise the other foot, again raising your toes up toward you as fully as possible.

Lift your feet eight times. Wait ten seconds. Then repeat the sequence two more times.

Imagine you're taking huge strides over hills and mountains, like a giant. The movement is slow and powerful, your immense body covering miles with every step.

...Remain sitting comfortably in your seat, with your back as upright as possible. Raise the heel of one of your feet, keeping the ball of your foot firmly on the floor. Then press the ball of your foot down into the floor.

Breathe out as you press the ball of your foot down for a couple of seconds. Then relax, release the pressure on the ball of your foot, and breathe in. Lower your heel.

Then repeat with your other foot. Press and relax eight times, first one foot, then the other. Wait ten seconds. Then repeat the sequence two more times.

## **A Healing Garden Visualization**

Imagery For Our Children: A Magical Healing Garden

Originally published in:

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by Charlotte Reznick, Ph.D.

First, use "a rainbow light" to reach a very deep relaxed state; second, bring in "a magic garden" to help grow inner seeds; and third, make use of "a healing pond" to heal physical and emotional hurts. They can be used separately or together, based on your goals with the students. An animal friend (or wizard) is used as a guide and helper, a valuable tool to access unconscious wisdom. "Gifts" are used as unique ways to receive power and assistance. For example, one 8-year-old girl received the gift of a spiral-moving rainbow to heal her chronic stomach pains, along with rainbow glasses to see her world in a more positive light. Another child received the gift of a golden heart to help him heal the physical heart-breaking pain he experienced during his parents divorce.

If you choose to use the following imageries, you may find your students feel healthier and happier, while learning to expand their own healing capabilities. You'll be surprised at what wise answers their inner guides offer, what gifts they receive, and what awareness they develop that can be applied to their everyday world. Use your most soothing, slow voice with soft music in the background if possible.

### **A RELAXING RAINBOW**

"Allow your eyes to gently close and focus on your breathing ... we're letting all our troubles float away ... in beautiful rainbow balloons. Imagine a beautiful colored rainbow floating above your head ... the purples and the blues ... the greens and the yellows ... the oranges and the reds ... and maybe some gold and silver.... Notice what colors your special rainbow is.... And as you breathe, this beautiful rainbow grows larger and larger ... and starts to gently wash over you ... to help you relax.... And to go inside and find that special calm place that waits for you each day."

You might now suggest the child relax each part of his/her body as the rainbow light moves through. And then....

"As you breathe you are totally safe in the rainbow light ... totally safe ... totally protected ... very, very comfortable."

### **CREATING YOUR MAGIC GARDEN**

"You find yourself surrounded by the rainbow light as you walk on a special path ... there are beautiful rainbow flowers around you ... and birds singing.... In front of you is a large stunning gate. It is a gate that leads you to your own magic garden. And there is a key to open this magnificent gate ... It's found under a rock.... Notice whether your key is gold or silver or copper.... The key has your initials carved in it so you know this is your gate and your key.... And one of your special animal friends now appears from around the rock. It is

an animal friend that is very wise and very loving, and is here to help you build and grow your magic garden."

At this point have the child enter the gate and create their magic garden. You may suggest any plants, trees, flowers, fruits, etc.

"Anything you want you can plant in this magic garden ... You may even plant seeds of peace ... and of joy and happiness ... and of calmness ... or any other qualities you would like to increase or bring in your life ... This is your own space ... This is a very magical time."

#### DISCOVERING THE HEALING POND

For the healing pond, you can adjust the message depending if the child has physical or emotional hurts, or if your focus is on building their capabilities.

"Now there's a part of this garden that has a wonderful healing pond. So you go over to it ... and this too is a magical place. As you step in the water ... which is the perfect temperature for you ... there is a beautiful long rock ... with soft, fluffy moss on it so you can lie with your head out of the water where you're totally comfortable ... And as you lie in the healing waters ... they wash over you ... and soothe your body ... and soothe your feelings ... and any pains or tightness melts away ... And it's a wonderful place to be as your garden grows. Your little animal friend has helped prepare some magic healing herbal tea for you so that when you drink it ... any sadness or hurts inside your body disappear and melt away ... so that all the goodness ... and all the health ... and all the joy that you deserve now appears."

#### THE BLOSSOMING OF THE GARDEN

"And when you are ready ... step out of the healing pond and dry off ... Your garden has turned into the most magnificent magical place that you can imagine. See what you have created ... the beauty ... the magnificence ... everything... How incredible and important you are for being able to plant seeds that grow to be tall and healthy ... just like you are growing. Know that when you take the time to plant seeds ... and the time to care for them ... wonderful things can grow."

#### THE WISDOM OF THE ANIMAL FRIEND

"Your special animal friend points out that there is one very precious flower that is calling to you ... and you lean down near the flower and you smell it ... it smells wonderful. And notice what color it is ... and how big it is ... and it's special shape. And the flower seems to be talking to you and it tells you something very important for you to know now in your life. To help your own magic grow within yourself. To help all the seeds within you ... and all your goodness ... come out. And when you look inside this flower there is a beautiful gift that springs up toward you ... Something to help you remember your own special growth ... And to know how wonderfully you're doing."

## THE RETURN

Now you can lead the child back out of the garden with the suggestion that they can return when they want.

"When you're ready you'll come back here ... slowly ... feeling your body ... feeling refreshed and remembering all good things.... remembering that wonderful magic garden ... and all the things you grew ... and saw ... and heard ... and felt ... remembering everything...."

## **Beach Visualization (IHS)**

Get comfortable. Sit in a supportive chair or lie on your back.

Relax your body by releasing any areas of tension. Allow your arms to go limp... then your legs....

Feel your arms and legs becoming loose and relaxed...

Now relax your neck and back by relaxing your spine.... release the hold of your muscles all the way from your head, down your neck....along each vertebra to the tip of your spine...

Breathe deeply into your diaphragm, drawing air fully into your lungs.... and release the air with a whooshing sound....

Breathe in again, slowly.... pause for a moment.... and breathe out.....

Draw a deep breath in.... and out....

In..... out.....

Become more and more relaxed with each breath....

Feel your body giving up all the tension.... becoming relaxed.... and calm.... peaceful....

Feel a wave of relaxation flow from the soles of your feet, to your ankles, lower legs, hips, pelvic area, abdomen, chest, back, hands, lower arms, elbows, upper arms, shoulders, neck, back of your head, face, and the top of your head....

Allow your entire body to rest heavily on the surface where you sit or lie. Now that your body is fully relaxed, allow the visualization relaxation to begin.

Imagine you are walking toward the ocean.... walking through a beautiful, tropical forest....

You can hear the waves up ahead.... you can smell the ocean spray.... the air is moist and warm.... feel a pleasant, cool breeze blowing through the trees....

You walk along a path....coming closer to the sea....as you come to the edge of the trees, you see the brilliant aqua color of the ocean ahead....



You walk out of the forest and onto a long stretch of white sand.... the sand is very soft powder.... imagine taking off your shoes, and walking through the hot, white sand toward the water....

The beach is wide and long....

Hear the waves crashing to the shore....

Smell the clean salt water and beach....

You gaze again toward the water.... it is a bright blue-green....

See the waves washing up onto the sand.... and receding back toward the ocean.... washing up.... and flowing back down..... enjoy the ever-repeating rhythm of the waves...

Imagine yourself walking toward the water.... over the fine, hot sand.... you are feeling very hot....

As you approach the water, you can feel the mist from the ocean on your skin. You walk closer to the waves, and feel the sand becoming wet and firm....

A wave washes over the sand toward you.... and touches your toes before receding...

As you step forward, more waves wash over your feet... feel the cool water provide relief from the heat....

Walk further into the clear, clean water.... you can see the white sand under the water.... the water is a pleasant, relaxing temperature.... providing relief from the hot sun... cool but not cold....

You walk further into the water if you wish.... swim if you want to.... enjoy the ocean for a few minutes..... allow the visualization relaxation to deepen.... more and more relaxed... enjoy the ocean....

Now you are feeling calm and refreshed...

You walk back out of the water and onto the beach...

Stroll along the beach at the water's edge.... free of worries... no stress... calm..... enjoying this holiday....

Up ahead is a comfortable lounge chair and towel, just for you...

Sit or lie down in the chair, or spread the towel on the sand.... relax on the chair or towel.... enjoying the sun.... the breeze.... the waves.....

You feel peaceful and relaxed.... allow all your stresses to melt away....

When you are ready to return from your vacation, do so slowly....

Bring yourself back to your usual level of alertness and awareness....

Keep with you the feeling of calm and relaxation.... feeling ready to return to your day....

Open your eyes, stretch your muscles... and become fully alert... refreshed... and filled with energy.

## **Visualization (Focus Family Resiliency Training)**

Note: This script uses images of the beach. If you are working with someone that might be reactive to sand imagery, consider using the Guided Imagery Script or alter this script for a walk along a stream or meadow.

Sit or lie in a comfortable position.

Take several deep breaths. In 1, 2, 3, out 1, 2, 3.

If you want you can close your eyes. Relax. Breathe in through your nose and out throughout your nose. In 1, 2, 3, out 1, 2, 3. In 1, 2, 3, out 1, 2, 3. When you breathe in, bring the air all the way down into your abdomen. In 1, 2, 3, out 1, 2, 3.

Notice your breath. In 1, 2, 3, out 1, 2, 3.

Keep breathing in slowly and breathing out slowly.

Now imagine that you are at the beach. Imagine yourself standing on the sand.

- The sun is bright.
- The sky is blue.
- There a few white clouds but for the most part it is a beautiful clear day.

You see the ocean ahead and hear the waves crashing.

Smell the salt in the air.

You can feel the light humidity in the air.

- Feel the sun shining on your skin.
- Feel the warmth of the sun wrapping around your whole body.
- Feel the gentle breeze against your face, your cheeks, your skin.
- Feel the warm sand around your feet. It feels like a warm blanket covering your toes.

Listen to the waves breaking against the sand.

- You see the waves gently rolling onto the shore.

Hear the seagulls passing over head.

- Watch as they fly by in their formation.

You hear some children playing in the distance. Laughing. And splashing in the water.

Then you turn your attention to the sound of the ocean. You notice the rhythm of the ocean sounds. The waves coming in and gently rolling back out.

You feel yourself getting calm and relaxed.

You take several deep breathes in to savor the sights, sounds, and sensations all around you.

The warmth that is swimming around your whole body. The sun's rays on your head. On your shoulders. The warm sand on your toes and feet. The cool breeze that matches the ocean's rhythm.

With each deep breath you are taking in the warmth of the beach and the sun and the cool of the ocean and the wind.

Each breath makes you feel more and more calm and relaxed. Notice how your body feels. The tension moves out of your shoulders. Your jaw relaxes. Any tension in the muscles seems to fade away as you savor this beautiful day on the beach.

(Stay quiet for one minute).

Now bring your awareness back to your breathing.

- Focus on your breathing.
- Bring your awareness back into the room.
- When you are ready, open your eyes.

## **Calming Colors Visualization (IHS)**

To begin, make yourself comfortable. Adjust your clothing as needed and assume a comfortable position.

First, before the calming color relaxation begins, notice how your body feels in this moment.

Passively pay attention to the state of your body right now. Do not try to change anything, simply notice how your body and mind feel.

Feel your body begin to relax slightly, as your shoulders drop a little lower.... your jaw loosens so your teeth are not touching.... and your eyelids start to feel heavy.

Take a deep breath in.... hold it.... and slowly breathe out....

Now just notice your breathing. Your body knows how much air you need. Notice with interest how your breath goes in and out. Feel the pause after you inhale and before you exhale.... and the pause before drawing another breath.

Allow your body to relax and your mind to focus on the calming color relaxation.

Allow the relaxation to occur naturally.... allow and observe....

Create a picture in your mind of the color red.

Imagine red of all shades....

You might picture red objects, a red landscape, or just a solid color.....

Imagine all of the different tones of red.... roses.... bricks.... apples....sunset....

Enjoy the color red.

Now allow the color you are imagining to change to orange. Picture the color orange.... infinite shades of orange.... flowers.... pumpkins .... carrots....

Fill the entire visual field of your mind's eye with the color orange.

Enjoy the color orange.

Visualize the color yellow. See in your imagination all the various shades of yellow. Allow yellow to fill your vision.... lemons.... flowers..... fall leaves...

Imagine the endless tones of the color yellow. Imagine yourself surrounded with the calming color yellow..... Immerse yourself....

Enjoy the color yellow.

Let the color you are imagining become green. Fill your imagination with the color green. Endless shades and tones of green.... plants.... leaves..... grass....

Imagine being surrounded by beautiful green..... all shades from the lightest to the darkest, bright green.... subdued green...

Enjoy green.

Now see in your mind the color blue. Surround yourself with beautiful blue.... Unending shades of blue..... water....sky....

Imagine blue filling your vision.....

Enjoy the color blue.

Allow the color in your imagination to become violet..... Focus on the multitude of purples around you.... flowers....eggplant....sunrise....

Immerse yourself in the color violet....

Enjoy violet.

Now allow your attention to return to your breathing..... notice how calm and regular your breathing is now.....

Meditate on the calming color relaxation once more....

Imagine the colors again, one at a time.... starting with red....

Orange....

Yellow....

Green.....

Blue.....

Violet.....

Now picture whatever calming color you wish. Do you have a favorite? Or a color that suits your mood right now? Imagine whatever colors you like. Allow your mind to be relaxed, focused, and calm.....

Enjoy the feeling of relaxation you are experiencing.....

Now it is time to return your attention to your regular activities.....

Become more alert with each breath you take....

More aware of your surroundings....

Stretch your muscles.... and open your eyes. Fully alert and calm.

## **Floating on a Cloud Visualization (IHS)**

Find a relaxed position – lying down is best – and get comfortable.

First, relax your body. Starting at the top of your head, allow a feeling of relaxation to begin. Feel the relaxation grow with each breath you take.

Inhale... Relax your scalp and head.... exhale.... Let the tension go away even more....

Breathe in relaxation.... Feeling your face and ears relax... exhale all the tension.

Inhale.... Feeling your neck and shoulders relaxing.... As you exhale, let all the muscles of your neck and shoulders release their hold, relaxing fully....

Breathe in, feeling the relaxation continuing to your arms and hands... Breathe out the tension....

Breathe in relaxation.... Allowing your chest and upper back to relax.... release the tension as you exhale.

Inhale, feeling the relaxation flowing through your middle back and your stomach.... Release the muscles of your back and stomach as you breathe out....

As you take another breath, feel your lower back relaxing. Feel the tension leaving as you release the breath.

Breathe in, relaxing your hips and pelvic area... Breathe out, relaxing even further.

As you inhale, feel your upper legs relaxing... Let the muscles of your legs completely let go as you breathe out.

Take another breath drawing in relaxation, all the way down to your feet. Let your legs go limp as you exhale.

Continue to breathe in relaxation, and breathe out tension.

Now you are feeling deeply relaxed. Deeply relaxed and calm...

Begin to create a picture in your mind. Imagine that you are floating on a soft, fluffy white cloud.

Feel the surface beneath you becoming softer... more cloud-like... Feel the cloud rising out of the surface you are on, surrounding you in it's protective support... soon you are floating on just the cloud...



Let it rise a little further, taking you with it.... see the walls and ceiling around you disappearing as you float into the sunny sky.... Drifting on the cloud.

Feel the cloud beneath you. It is soft but supportive. Feel the cloud supporting your whole body.

Notice each place where your body is touching the cloud. Feel how soft and comfortable the cloud is. It is almost like floating in the air.

Notice how the cloud feels. It might be a little bit cool, and moist, like fog. Your body is warm, very warm and heavy, and sinking into the cloud. It is a wonderful feeling.

Start to create an image in your mind of where you are. You might be floating just barely above the ground. You can choose to float wherever you like. The sky above you is bright blue, sunny, and inviting. You are warm and comfortable, warmed by the sun's rays shining down peacefully.

There are some other clouds in the sky, floating gently. See them lazily passing by, far above.

Your cloud can float wherever you choose. If you enjoy being high up, you can let your cloud rise into the sky. It is very safe. Very calming. Very relaxing. You are so relaxed. Floating on a cloud. Supported gently but firmly by your cloud. Surrounded by the cloud's protective embrace.

See the sights around you as you are floating on a cloud. Imagine the green grass below, gently blowing in the wind. The grass recedes further away as you rise into the sky. From here, the grass looks like a soft carpet, the wind creating gentle waves in the grass as if it were water.

What else do you see? Perhaps some trees, their leaves whispering in the gentle breeze. You can gaze down on housetops, country roads, hills.

From this amazing vantage point, you can see around you 360 degrees. The horizon stretches out in a complete circle around you.

Notice in the distance how the hills appear almost blue.... slightly hazy.

How does it feel to be floating on a cloud? Does it sway gently, like a boat on almost-smooth water? Does it drift in the breeze? Can you feel the movement as you gently float on the cloud? You feel so comfortable.... So relaxed.... Floating on a cloud....

(pause)

Continue floating on a cloud, enjoying the sights around you. Up here, the air is so clean.

Look up at the beautiful sky. The clouds that were high above you are much closer now. Some are so close you can almost touch them. Not quite.

Continue floating on a cloud, drifting, rising even higher if you wish.

The ground below you looks like a patchwork quilt. Green grass. Golden fields. Yellow. Brown. Blue patches of water... rivers and lakes.

See the clouds around you. You are even able to look down on some clouds. See the shadows they make on the ground below. Can you see the shadow from your cloud? See how the shadow drifts silently across the ground below.

Relax and luxuriate in this beautiful scene, floating on a cloud. You are so close now to another cloud above you, that if you reach out, you can touch it. What would it feel like?

You can even rise higher still, and pass right through the clouds above. Feel the mist on your cheeks as you rise through the clouds. Around you it is a glorious white, like fog... the sun shines through just enough that the white all around you glows vibrantly.

You rise higher still, suddenly coming through the clouds and into the open, dazzling sunlight shining on your face. The sky above is brilliant blue.

You can look down on the cloud you just passed, and see the white, fluffy peaks and valleys of this cloud below. It looks like perfect snow. Looking around below you it is as if you are above a land of snow. The sun shines brightly.

Lay back on your cloud, floating... Relaxing.... Floating on a cloud.

Feel the cloud beneath you... Still supporting you smoothly and comfortably.

Take your cloud wherever you wish.... Higher, lower, side to side... Drift wherever you want to go.

Enjoy the sights around you, as you are flying wherever you wish....

(pause)

Continue floating on a cloud, relaxing... Imagine wherever it is you would like to go. Your cloud can take you there.

Maybe you want to float above the mountains, drifting above their rocky peaks.

Perhaps you would like to drift along the coast of the ocean, watching the waves crashing to shore.

Maybe you would like to float through the city, drifting in and out among buildings and watching the cars below.

You can travel anywhere you wish. You can look down on forests... the countryside... even your own home... Float wherever you like.

(pause)

Enjoy the sights around you. Enjoy floating on a cloud. You are so relaxed... so peaceful...

(pause)

Now it is time to return to your day. Let your cloud take you there. Feel your cloud flying through the sky, back to where you need to go. Let your cloud lower you down, back toward the ground. Float back to where you were when you started this visualization. Let the cloud meld with the bed, chair, or whatever surface you are on. Feel the cloud slowly disappear as the real surface becomes more solid beneath you.

Notice now your surroundings. Gradually come back to the present. Feel the surface beneath you. Hear the sounds around you. Become more and more aware and alert. Continue to rest for a few moments longer, but open your eyes and look around. See your surroundings.

Wiggle your fingers and toes, feeling your body reawaken. Shrug your shoulders. Move your arms and legs. Turn your head. When you are ready, you can return to your day, feeling refreshed and alert after your journey floating on a cloud.

## **Forest Visualization (IHS)**

Begin by finding a comfortable position sitting or lying down. Allow your body to begin to relax as you start to create a picture in your mind. Let the forest visualization begin.

Imagine yourself walking on a path through a forest. The path is soft beneath your shoes, a mixture of soil, fallen leaves, pine needles, and moss. As you walk, your body relaxes and your mind clears, more and more with each step you take.

Breathe in the fresh mountain air, filling your lungs completely. Now exhale. Breathe out all the air. Feeling refreshed.

Take another deep breath in...revitalizing.... and breathe out completely, letting your body relax further.

Continue to breathe slowly and deeply as you walk through the forest and continue the forest visualization.

The air is cool, but comfortable. Sun filters through the trees, making a moving dappled pattern on the ground before you.

Listen to the sounds of the forest.... Birds singing. A gentle breeze blowing. The leaves on the trees shift and sway in the soft wind.

Your body relaxes more and more as you walk. Count your steps and breathe in unison with your strides. Breathe in 2, 3, 4... hold 2, 3...exhale 2, 3, 4, 5.

Breathe in 2, 3, 4... hold 2, 3...exhale 2, 3, 4, 5.

Breathe in 2, 3, 4... hold 2, 3...exhale 2, 3, 4, 5.

Continue to breathe like this, slowly and deeply, as you become more and more relaxed.

As you walk through the forest visualization, feel your muscles relaxing and lengthening. As your arms swing in rhythm with your walking, they become loose, relaxed, and limp.

Feel your back relaxing as your spine lengthens and the muscles relax. Feel the tension leaving your body as you admire the scenery around you.

Your legs and lower body relax as well, feeling free and relaxed.

As you continue to walk through the forest visualization, you begin to climb up a slight incline. You easily tread along smooth rocks on the path. Feeling at one with nature.

The breeze continues to blow through the treetops, but you are sheltered on the path, and the air around you is calm.

Small saplings grow at the sides of the path.

Around you is an immense array of greens. Some of the leaves on the trees are a delicate, light green. Some leaves are deep, dark, true forest green.

Many trees have needles that look very soft and very green. The forest floor is thick, green moss.

Tall trees grow on either side of the path. Picture the variety of trees around you. Some have smooth, white bark. Others are darker, with coarse, heavy bark, deeply grooved. Enjoy the colors of the bark on the trees - white, tan, brown, red, black... many combinations of color. You admire the rough, brown bark of pine trees and enjoy the fresh pine scent.

Smell the forest around you. The air is fresh, and filled with the scent of trees, soil, and mountain streams.

Continue the forest visualization...

You can hear the sound of water faintly in the distance. The gentle burbling sound of a creek.

As you continue to walk through the forest, you are gaining elevation and getting closer to the sound of a running stream.

Continue to enjoy the forest around you. Enjoy the forest visualization.

As you near the top of the mountain, you hear the stream, very close now. The path curves up ahead. You can see sunlight streaming onto the path.

As you round the corner, you hear the water, and see a clearing in the trees up ahead. A beautiful look out point awaits.

You are growing tired from your journey. Your body feels pleasantly tired and heavy.

Imagine yourself walking toward the clearing and the stream. Stepping stones make an easy path across the stream and toward the edge of the mountain. Step on each large flat stone to easily cross the small, shallow stream.

Up ahead is a large, smooth rock... like a chair waiting for you to rest. The rock is placed perfectly, high up on this beautiful vantage point.

Sit or lie down on the rock if you wish. It is very comfortable. You feel very comfortable and at ease. The sun shines down on you.

Looking around, you see mountains in the distance. Faint and blue.

You can look down from your vantage point into a valley with trees and a brilliant blue lake. Across from you is another mountain.

The clearing around you is made up of rocks, soil, pine needles, moss, and grass. The grass and mountain wildflowers around you blow gently in the breeze. A deer quietly emerges from the edge of the forest to graze in the clearing. As the deer raises its head to look at you, you can see its nostrils moving to catch your scent. The deer cautiously walks to the stream to drink before disappearing back into the forest.

Squirrels dart in and out of sight as they romp through the trees, and race across the clearing.

Feel the sun warming your body as you relax on the rock. Enjoy the majestic landscape around you and feel your body relaxing even more.

Your body becomes very warm, and very heavy.

Continue to breathe the clean, fresh air.

You feel so relaxed.

Calm.

At peace.

In unity with nature around you.

Enjoy the sights....sounds....and smells of the forest around you.

Feel the sun, warm on your skin.

Feel the gentle breeze blow across your cheek.

Listen to the birds singing.

Hear the stream flowing. The leaves rustling in the breeze. Squirrels chattering.

See the flowers, trees, valley, and mountains around you.

Lay back on the comfortable rock, and you can look up to see the blue sky. Small white clouds float gently across the sky. Watch them drift slowly by. Shapes ever changing.

Enjoy this peaceful place.

(pause...)

When you are ready to leave this peaceful place, slowly begin to reawaken your body.

Know that you can return to this forest visualization in your imagination whenever you like.

As you reawaken, keep with you the feeling of calm, peace, and relaxation.

Wiggle your fingers and toes to wake up your muscles.

Shrug your shoulders. Stretch if you want to.

When you are ready, open your eyes and return to full wakefulness, feeling alert and refreshed.

**Guided Imagery  
(Focus Family Resiliency Training)**

Sit or lie in a comfortable position.

Take several deep breaths. In 1, 2, 3, out 1, 2, 3.

If you want you can close your eyes. Relax. Breathe in through your nose and out through your nose. In 1, 2, 3, out 1, 2, 3. In 1, 2, 3, out 1, 2, 3. When you breathe in, bring the air all the way down into your abdomen. In 1, 2, 3, out 1, 2, 3.

Notice your breath. In 1, 2, 3, out 1, 2, 3.

Keep breathing in slowly and breathing out slowly.

Think about a place that makes you feel content, calm, and relaxed. This could be a beach, a meadow, a room in your house, a favorite vacation spot. This could be near the ocean, or a stream, or up in the mountains. Think about whatever place helps you to feel content, calm, and relaxed.

Continue to breathe in slowly and out slowly.

Think about the place that makes you feel content, calm and relaxed.

Imagine that you are there now. Imagine how the place looks. Is it sunny? What colors do you see? As you imagine yourself in this special place, pay attention to the textures, colors, and what objects are around. Is there any water? Are there trees? Is there grass? Or sand? What color is the sky?

Now focus on the sounds? Can you hear any wind? Do you hear water? Think about how it sounds. Do you hear any birds? Do you hear any children or people talking? How does the ground sound as you walk on it?

Now think about how it smells? What are the different scents that are entering your nose? Breathe in deeply and focus on the different smells.

Next focus on how it feels to be there. How does your skin feel? How do your feet feel walking around your special place? Do you feel warm? Or cool? How do your eyes feel? Do you feel calm and relaxed?

Take a few more moments and savor how it feels to be here. Think about the sights, sounds, smells, and sensations.

(Stay quiet for one minute).

Now bring your awareness back to your breathing.



Focus on your breathing.

Bring your awareness back into the room.

When you are ready, open your eyes.

### **Peaceful Meadow Visualization (IHS)**

Take a moment to relax your body. Get comfortable. Notice how your body feels, and make some slight adjustments to increase your comfort. Take a deep breath in. Hold it... and breathe out, releasing tension.

Breathe in again, and as you exhale, allow your body to relax slightly.

Continue to breathe slowly...deeply.

As you visualize the following scene, let your body and mind become more and more relaxed with each moment.

Imagine yourself walking outdoors.

You are walking through the trees...small aspens, their leaves moving in a slight breeze.

The sun shines down warmly.

You walk toward a clearing in the trees. As you come closer to the clearing, you see that it is a meadow.

You walk out of the trees, into the meadow. Tall green grass blows gently...

You are probably feeling a bit tired...

It would be so nice to sit down in the grass.

Walk further into the meadow now...looking around...

Imagine the meadow in your mind's eye...what does the meadow look like?

Find a place to sit. You might want to sit or lie down in the grass...perhaps you have a blanket with you that you can unroll over the soft grass and lie down.

Feel the breeze caress your skin as you sit or lie down in the sun.

It is a pleasant day...warm, but not hot...quiet and peaceful.

Notice the sights around you. The grass, whispering...see the mix of meadow grasses, clover, wildflowers around you.

Watch a small ladybug climb a blade of grass. Climbing up toward the top, pausing for a moment, and then flying away.

Imagine closing your eyes and listening to the sounds of the meadow. Hear birds singing...the breeze rustling the grass softly...

Feel the sun on your face. Imagine turning your face up toward the sky, eyes closed, enjoying the warmth of the sun.

Smell the grass...the wildflowers...the smell of the sun on the earth...

Look around again to see the sights around you. Notice how the ground follows gentle contours of hills. See the blue sky above you...a few wispy clouds drifting slowly by.

See the trees at the edge of the meadow.

The meadow is lush and green, a haven for birds and animals. As you watch, a deer peers out through the trees, and emerges to graze at the edge of the meadow.

The deer raises its head to look at you, sniffing the breeze, and then turns, disappearing silently into the trees.

Rest and luxuriate in this peaceful, beautiful meadow. Notice the sights, sounds, and smells around you. Feel the soft grass beneath you, the sun and breeze on your skin. Imagine all the details of this place.

(pause)

Now it is time to leave the meadow and return to the present. Notice your surroundings. Feel the surface beneath you. Hear the sounds around you. Open your eyes to look around, re-orienting to the present.

Take a moment to stretch your muscles and allow your body to reawaken.

When you are ready, return to your usual activities, keeping with you a feeling of peace and calm.

## **Peaceful Place Visualization (IHS)**

The purpose of this peaceful place relaxation script is to relax your mind and guide you to imagine your own peaceful, safe place. This place will be an imaginary area that you can visualize to help calm and relax your mind when you are feeling stressed.

Begin by setting aside a few minutes so that you can relax without having anything else you need to focus on. Find a comfortable position.

For the next few moments, focus on calming your mind by focusing on your breathing. Allow your breathing to center and relax you. Breathe in.... and out.

In..... out.....

In.... Out.....

Continue to breathe slowly and peacefully as you allow the tension to start to leave your body.

Release the areas of tension, feeling your muscles relax and become more comfortable with each breath.

Continue to let your breathing relax you....

Breathe in...2...3...4... hold...2...3..... out...2...3...4..... 5

again...2...3...4...hold...2...3.... out...2...3...4.... 5

Continue to breathe slowly, gently, comfortably.....

Let the rate of your breathing become gradually slower as your body relaxes.

Now begin to create a picture in your mind of a place where you can completely relax. Imagine what this place needs to be like in order for you to feel calm and relaxed.

Start with the physical layout of the place you are imagining..... where is this peaceful place? You might envision somewhere outdoors.... or indoors..... it may be a small place or large one..... create an image of this place.

(pause)

Now picture some more details about your peaceful place. Who is in this place? Are you alone? Or perhaps you are with someone else? Are there other people present? Animals? Birds? Imagine who is at your place, whether it is you only, or if you have company.

(pause)

Imagine even more detail about your surroundings. Focus now on the relaxing sounds around you in your peaceful place.

Now imagine any tastes and smells your place has to offer.

Imagine the sensations of touch... including the temperature, any breeze that may be present, the surface you are on.... imagine the details of this calming place in your mind.

Focus now on the sights of your place - colors, shapes.... objects.... plants..... water..... all of the beautiful things that make your place enjoyable.

To add further detail to this relaxing scene, imagine yourself there. What would you be doing in this calming place? Perhaps you are just sitting, enjoying this place, relaxing. Maybe you imagine walking around.... or doing any other variety of activities.

Picture yourself in this peaceful place. Imagine a feeling of calm..... of peace..... a place where you have no worries, cares, or concerns.... a place where you can simply rejuvenate, relax, and enjoy just being.

(pause)

Enjoy your peaceful place for a few moments more. Memorize the sights, sounds, and sensations around you. Know that you can return to this place in your mind whenever you need a break. You can take a mental vacation to allow yourself to relax and regroup before returning to your regular roles.

In these last few moments of relaxation, create a picture in your mind that you will return to the next time you need a quick relaxation break. Picture yourself in your peaceful place. This moment you are imagining now, you can picture again the next time you need to relax.

When you are ready to return to your day, file away the imaginary place in your mind, waiting for you the next time you need it.

Turn your attention back to the present. Notice your surroundings as your body and mind return to their usual level of alertness and wakefulness.

Keep with you the feeling of calm from your peaceful place as you return to your everyday life.

## **Peaceful Waves Visualization (IHS)**

It's time to relax... time to take a mental vacation. Start by making yourself comfortable. You may want to sit or lie down... loosening any tight clothing and adjusting your position so you can relax.

Begin to let go of tension and relax your body. Just start with one small area of your body that is tense. Notice this area of tension, and allow it to ease slightly. Take a deep breath in... and as you exhale, feel the muscles in the area you are focusing on becoming more relaxed. Imagine breathing in relaxation... and breathing out tension. Notice with each breath how you can relax this one area of tension.

You may want to scan your body now for other areas of tension. Choose one area to focus on, and concentrate on breathing in relaxation... and breathing out tension. Feel your muscles relaxing.... loosening.... as you breathe slowly and deeply.

Notice now where your body is the most relaxed. See how this feeling of relaxation is growing.... spreading... to other areas of your body....

Feel your muscles relaxing... becoming loose..... your limbs are feeling heavy and relaxed..... your eyelids feel very heavy.

Go ahead and close your eyes, if you haven't done so already.... and as you continue to relax further, begin to create a picture in your mind.

Imagine that you are near the ocean.... just before sunrise. Perhaps you are on the beach.... or a hammock.... or a dock. The ocean is very calm. Most of the water looks very smooth, but you can see small ripples, where gentle, peaceful waves roll in toward the shore.

Take a few moments to imagine this scene.

(pause)

Picture all the details of this relaxing place. The sun has not yet risen, but the sky is just starting to get light. The air is cool, comfortable, and pleasant. The temperature is very pleasant.... a calm and comfortable morning. Imagine the feel of a slight, gentle breeze on your skin. The breeze blows just enough to move the leaves of palm trees gently back and forth. The leaves of the trees make a dark silhouette against the gradually lightening sky.

Imagine the fresh smell of the air... the smell of the clean water and sand. It is a refreshing scent.

Picture in your mind the sound of the water lapping against the shore. The sea is so calm, the waves are very quiet, but you can hear them as they move gently and calmly.

Hear the slight rustling of leaves as the palm branches sway gently.

It is early morning, and you are the only one here. This is such a calm, safe, pleasant place. Relax here near the gentle ocean.

Perhaps you are on a deck with wooden tables... umbrellas, closed for the night. They will soon be opened to provide shelter from the sun, but for now they remain with their cloth tops folded down, as if resting.

Small huts with grass roofs provide shelter for some of the tables. During the day, this place is bustling with activity, as people sit at the tables in the shelter of the grass huts, sipping cool drinks by the water. But now, all is quiet... peaceful.... serene.

Notice that the sun is starting to rise. You can see a spot of light at the horizon, as if the sun is rising right out of the water. See the light growing as the sun begins to rise above the horizon. Small streaks of light shine into the sky, as the sky grows lighter and lighter with the growing dawn.

See the birds that are active early in the morning. Some fly overhead... some are already diving into the water looking for fish. Other birds simply sit quietly. They are enjoying the dawn as well.

You can see some peaceful waves as they break some distance from the shore. White peaks rise in a line out in the water, crashing on a stone breaker that keeps the water close to the shore peaceful and calm.

See the waves crashing on the breaker.

See the peaceful waves gently lapping at the shore. Washing gently onto the sand.

The waves are very calming... they are so peaceful.... so rhythmic.



Watch the peaceful waves flowing like your breath.... in.... and out.... in.... out.... continue to observe the rhythm of the peaceful waves, flowing with the rhythm of your breath.

(pause)

As you relax, you can enjoy the beautiful sunrise. Pink and orange give everything around you a warm glow. The sun has risen above the horizon... still low in the sky...

The breeze.... the warm early sunlight.... the gently lapping, peaceful waves.... softly moving palm leaves.... all of these create a calm and peaceful place.

Continue to relax for a few moments here.... enjoying the peaceful waves and the remaining calm time at sunrise.

(pause)

Soon this place will be busy with people going about their morning routines. Enjoy the last few remaining moments of solitude as the sun rises higher in the sky.

The sun is shining, brighter each moment. This has become a beautiful morning. You can see people in the distance, walking along the beach.

The waves become a little bigger, a bit more lively as the breeze increases.

Everything around you seems to be waking up. Getting ready for a lovely day.

When you are ready to wake up your body and your mind, and return to the present, give yourself a few moments to do so.

Return your awareness to your surroundings and notice the real environment you are in.

Let your muscles wake up by opening and closing your hands, shrugging your shoulders, moving around a bit.

Keep with you the feeling of peace and calm you had while you were relaxing, as you open your eyes and sit quietly for a moment.

When you are awake and alert, you can return to your usual activities, knowing that you can return to this place in your mind whenever you want to relax.

## **Protective Light Visualization (IHS)**

Get comfortable, finding a relaxed position, and let your body begin to relax.

Take a deep breath in, and as you exhale, let the tension start to leave your body. Take slow, calm breaths.

Mentally scan your body, taking note of how your body feels. Focus in on the areas where tension is stored, and concentrate on relaxing those areas.

Feel your body becoming more relaxed..... slowly releasing tension..... letting go of stress....

You will probably notice that you are relaxing more and more.... and you will continue to become even more relaxed as you begin to visualize a protective light.

Imagine that there is a protective light shining around your body... almost as if you are glowing. This light can keep you safe right now from stress, tension, worries, and other problems that have seemed to attack you.

Picture in your mind being surrounded by light. Feel how relaxed, calm, and secure you feel as this protective light surrounds you.

The light is like a shield, deflecting anything that is not good. It is like a spiritual armor that can protect you and help you to feel calm and relaxed.

Imagine being surrounded by protective light.... from your head to your feet.....

Focus your attention on your feet.... feeling how relaxed and maybe even tingly your feet feel. Notice that your feet are surrounded by protective light..... as are your ankles.... let your ankles be loose and relaxed.

Feel your lower legs relaxing, surrounded by light..... soft.... heavy..... relaxed. Your upper legs are relaxed and surrounded by light too..... very warm and relaxed.

Turn your attention now to your hands..... feel the relaxation there as your hands become very relaxed.... limp..... heavy..... along with your wrists, lower arms.... and upper arms.... all surrounded and protected, shielded by protective light.

Feel the relaxation in the core of your body... starting at your stomach... and flowing outward.... feel the relaxation flowing from the center of your body, out to your back.... chest..... hips..... feel the relaxation filling your body. Notice that your body is enclosed in a shield of light as well.

Allow the relaxation to continue to flow through your body, upward to your neck and shoulders.... all the way to the top of your head. Feel your face relaxing.... limp and relaxed.... calm .... and feel the protective light surrounding your head and face, your whole body....

You are surrounded from head to toe in protective light.... shielded from any worries or troubles.

Relax.... basking in protective light.

(pause)

Notice that there might still be some areas of tension in your body.... some worries remaining in your mind. You might even be able to picture these areas of tension as dark. See the dark tension being drawn out of your body by the protective light. Feel the worries and stress leaving your body and mind as they are leaving your body.

The protective light is like a magnet, drawing out the dark tension, out of your body and away... once the tension has left your body it is repelled by the light, which works as a shield, protecting you from anything that is not good.

The light also works as a magnet for good, peaceful thoughts.... attracting relaxation to you.

Feel the protective light drawing away tension, and bringing forth relaxation..... shielding and protecting you, while helping you to feel even more relaxed.

Enjoy this feeling of being safe and protected by your spiritual shield of protective light.

(pause)

You are so calm..... so relaxed.... peaceful.... relaxed.

(pause)

Now it is time to return to your day. Remember that you can imagine this protective light again, any time you need to, and can repel stress and tension and feel calm and relaxed.

Focus again on your breathing.... taking a deep breath in..... and out....

Now turn your attention to your body reawakening. Gently move your body a little, feeling your muscles waking up. Stretch a bit if you like.

Allow your mind to become fully awake and alert, while still feeling relaxed.

When you are ready, open your eyes.... fully awake, energized and calm.

## **Starry Sky Visualization (IHS)**

This starry sky relaxation is a guided imagery script that will describe relaxing at dusk and watching the stars appear in the night sky.

Start by finding a comfortable position. As you settle in, direct your attention to your body. Notice how your body feels in this moment. Let your body begin to relax by releasing the areas of tension, such as your shoulders.... feel the tension slipping away as you lower your shoulders slightly and let the muscles give up their hold.

Take a deep breath in.... and as you exhale, let your body relax even more. Where is your body feeling the most tense? Focus your attention on this area as you take another breath in.... and feel this area relaxing as you breathe out.

Breathe in.... and out.....

In.... out.....

Continue to take slow, deep breaths.

Where is your body the most relaxed? Notice how this area feels. Notice how the relaxation feels. See how you can let this relaxed feeling increase... growing.... relaxing.... feeling your whole body relax..... as if your muscles are melting.... softening.... relaxing.

As your body relaxes more and more, you can also relax your mind as you focus on the guided imagery to follow.

Imagine that you are outdoors at dusk. It is still light out, but the sun has set below the horizon.

It is a pleasant temperature, comfortable..... and you are in a safe, peaceful place in the country. Maybe you are on a farm, or in the mountains, or in the open prairie.... picture a place that feels calm, safe, and serene.... a place you would enjoy watching the starry sky at night.

Imagine the details of your surroundings. You are probably sitting in a chair, or lying on a blanket. Your position allows you to admire the sky above.

See the grass on the ground around you. You might see some trees, or rocks.... or even just wide open plains. Imagine this pleasant scene, and feel yourself relaxing, simply enjoying this solitude.

The sky is becoming gradually darker. The highest part of the sky is a deep indigo color, becoming darker and darker as the moments pass. This color blends into a lighter shade, almost green.... At the horizon, the sky is an interesting shade of pink, mixed with gray in the fading light.

It is very peaceful watching the sky darken. The air around you is still and calm. In the distance, you can hear crickets and frogs as they begin to sing.

The air is slightly cooler now, very pleasantly cool against your forehead and cheeks.

Looking at the horizon now, shapes such as distant trees or buildings are in silhouette. Your eyes are slowly adjusting to the decreasing light. As you gaze up at the sky above, it stretches from horizon to horizon like a vast dome. Straight up above, the sky is growing darker, and is nearly black.... fading to a lighter color near the horizon in the west.

You can see the first stars appear.... first one star... and then another.... and another.... See them twinkle.... shining like tiny diamonds.

As you look at the darkening sky, you can see more and more stars.

Relax and enjoy the dusk.... watching night begin.

(pause)

The sky is even darker now. It has become a dark black, with only a slight hint of light at the horizon where the sun has set. The sky is so clear.... you see no clouds anywhere to obscure the starry sky.

More stars have appeared, until now the sky looks like it has been sprinkled by a salt shaker full of gleaming crystals of salt that are the stars. Some stars are bright, luminous.... others are tiny specs that you can barely see.

Simply enjoy relaxing under the starry sky.... enjoying this quiet retreat.

(pause)

Now the sky is jet black. Out here, away from city lights, the stars are amazingly bright. Have you ever seen so many stars? The sky is filled with so many stars, you would not even be able to count them.

See the constellations formed by stars... it is like hundreds of connect the dots pictures spread out before you. The starry sky is so huge.... so vast.... a beautiful glimmering blanket of stars stretching up in a complete circle around you from every horizon.

Admire the starry sky.... feeling very calm.... relaxed.... at peace.....

(pause)

When you are ready to leave your imagined peaceful place, you can begin to reawaken your body and mind.

Feel your muscles reawakening as you take note of your surroundings.

Slowly return to the present....

Move your muscles by wiggling your fingers..... now open and close your hands a few times.

Wiggle your toes.... move your ankles.....

Move your arms and legs.....

Stretch if you want to.... feeling your body becoming fully awake.

Take a moment to sit quietly as you reawaken completely. Notice that you still feel calm and relaxed, though you are awake and alert.

When your mind and body are fully awake, you can resume your usual activities, feeling refreshed.

## Summer Clouds Visualization (IHS)

To begin, make yourself comfortable as you find a comfortable place to lie down.

Begin to become aware of your breathing.

Notice each breath as it goes in..... and out.....

Take a moment to focus your attention on your breathing, without trying to change anything. Just notice your breathing, focusing intently on each breath.

(pause)

Now see how you can slow the rhythm of your breathing by counting. Breathe in to the count of 4, hold for a count of 3, and exhale to the count of 5.

Breathe in...2...3...4...Pause...2...3...Breathe out...2...3...4...5....

Again...2...3...4...Hold...2...3...Exhale...2...3...4...5....

Breathe in...2...3...4...Hold...2...3...Exhale...2...3...4...5....

Breathe in...2...3...4...Pause...2...3...Breathe out...2...3...4...5....

Breathe in...2...3...4...Hold...2...3...Exhale...2...3...4...5....

Continue to breathe slowly, smoothly..... relaxing more with each breath.

Feel yourself becoming more and more relaxed.

As you relax, start to create a picture in your mind. Imagine that you are lying on a blanket outside on a warm summer day. The blanket is in the soft grass, next to some trees.

The sun shines down warmly, and a cool breeze blows across your skin.

See the sky above, blue and bright. See the clouds floating by... blowing in the breeze.



Picture in your mind the details of this scene. The feel of the sun and breeze on your skin. The soft grass and blanket beneath you. The trees beside you, a mix of leafy trees and conifers.

The leaves on aspens and poplars wave and turn as they blow in the wind. You can hear the rustle of the leaves. Between the leaves, you can see the trunks and branches of large, old trees, empty of leaves. The bark is dark with small patches of light colored mosses and lichens. A few spruce trees grow among the aspens. Their branches move slightly up and down, springing back as the wind blows them.

Watch the clouds passing the branches.... drifting by. Notice the different shapes of clouds. Some are round, fluffy cumulus clouds. Others are long, thin, wispy clouds... like streaks of semi-transparent white paint across the blue of the sky. The clouds drift lazily by. Slowly... smoothly.... floating.

It is so relaxing, watching the clouds drift by in the sky above.

The sun shining down warms and relaxes you, creating a calm, sleepy feeling. The breeze keeps you cool and comfortable.

Feel your body relaxing... bit by bit.... as you sink into the soft blanket and grass beneath you. Feeling your muscles relaxing... letting go. Allowing your breathing to slow as you rest peacefully.

(pause)

Imagine the sights and sounds of this relaxing scene. The sound of the wind in the trees.... birds singing.... Picture the leaves of the trees as you see them moving.... twisting.... the sun shining through the trees... dappled on your face....

Enjoy relaxing, gazing up at the sky. Watching the clouds drift by. Enjoying this beautiful day.

(pause)

When you are ready to leave this peaceful place, slowly begin to return your awareness to the present.

Take a deep breath in.... and out.

Breathe in again.... and out....

Continue to breathe smoothly and regularly, feeling your energy increasing with each breath.

As you breathe, allow your body to reawaken. Feel the energy flowing through your muscles.

Raise your shoulders as you breathe in, and lower them as you breathe out. Feel your muscles reawaken.

Keep with you the feeling of calm and relaxation, while returning to a state of wakefulness.

When you are ready, open your eyes and return to your day, feeling alert and calm.

## **The Big White House (TMW)**

This script helps older children and teens to gain perspective and deal with everyday stress. (From *Guided Imagery For Healing Children and Teens* by Ellen Curran):

Imagine walking along a long white beach. You can hear the gulls and the gentle roll of the waves. Your feet sink into the warm, white sand. It is quiet and safe. You are alone walking into the soft sea wind. The sun is shining down on you, making you warm. You have been looking for a place to be quiet and comfortable. This feels as if it is your beach, yours alone.

You stop and stand, looking out over the immense expanding ocean. It shows its green top-water, its purple mid-water, and its gray powerful underwater. The colors are mixing and churning, creating the bubbly white crest at the top of each wave. The roll of each wave sounds like the Earth, breathing. O...cean. O...cean. Over and over again with each wave. You feel the power of the ocean and the Earth.

A short distance ahead of you, you now notice a big, white house. It is beckoning to you. It looks like a temple or small castle of some sort. You walk towards it, relaxed and interested. You follow a short path to the house and see that the large door is open. You feel that it is perfectly OK for you to go inside. It is safe and calm.

You step out of the sunshine and into the coolness of this beautiful house. You find yourself in a huge hallway with plants and paintings. A magnificent, marble staircase stands before you. You know you want to go up those stairs. You become aware of a very heavy backpack that you have been carrying all this time. The backpack is full of your worries, troubles, concerns, and negative feelings. You have been carrying them for a long time and you realize that this backpack is weighing you down. Your shoulders ache, and your back feels tight and stiff from all these feelings.

Slowly remove your backpack and with it all your worries and concerns. You feel released, free! You can now easily ascend the staircase. Each step you take, you become lighter, happier, and quieted. Each step brings you closer to absolute comfort and joy. The comfort and joy live in you, and now there is nothing to get in the way of feeling them, reaching them, having comfort and joy.

Now at the top of the stairs, you are strong and certain. A large window is open at the top of the stairs, and in front of it is a big, white comfortable chair. You sit down and face the window, watching the magnificent ocean once again. This time is yours. You watch from

your chair, by your window in your house. Breathe in the soft ocean air, and know you are home.

## **The Magic Shell (TMW)**

This script is for younger children and can help when worry and anxiety are a concern.

(From *Meditations for Mini's* by Debbie Wildi):

Place yourself in a comfy, cozy position. Close your eyes and take a long slow deep breath. As you breathe out relax your body.

Imagine that you are standing on a beach. See the beach in your mind. Think about a beach that you may have visited, or you could use an imaginary beach if you like.

You can feel the sand beneath your toes and the sun is warm on your face. Look around you. In front of you is a huge ocean. It looks a silvery-blue color and the sunlight sparkles like tiny stars dancing on the surface.

You look at the ground and in front of you in the sand is the most glorious shell you have ever seen. You pick it up. It feels warm. Notice how smooth the shell is. Feel it with your fingers. This is your magic shell. You can tell it your secrets and it will keep them. You can also tell your shell any worries that you may have. Tell it about any problems that may be troubling you at the moment. No matter how big or how small they are. The shell wants to hear them.

Whenever you have worried feelings you can tell your shell about them and it will magically take those horrid feelings and turn them into good ones.

Now see yourself holding the shell close to your mouth. In your mind silently tell it whatever you wish. No one else will know what you say. Only you and your shell! As you say your words they go right into the middle of the shell so that it can take them away for you. Tell your shell your worries right now....

Now you do not have to feel yucky feelings anymore. The shell has made them disappear. Just like magic!

They are gone!

As you hold your shell close all you feel is calm and happiness. You feel peaceful all the way from the tips of your toes, to the tip of your nose. Feel it right now. Notice how it feels.

It is important for you to know that you can imagine your shell whenever you wish to make yucky thoughts and feelings disappear, whenever you wish to feel calm. Your shell will always be there waiting in your imagination.

Of course, if you visit the seaside you can always look for your own real magic shell. How will you know it is magic? Just choose the shell that feels right for you, this will be the magic one. You can also use a magic stone if you like.

Find one of these in your garden, or in the street.

Here is an idea! Keep your magic shell or stone under your pillow to take away bad dreams and always bring you a peaceful sleep.

Perfect!”

## **Wildlife Sanctuary Visualization (IHS)**

Get ready to relax your body and your mind. Settle into a comfortable position, and begin to turn your attention inward.

Notice how you are feeling right now... mentally.... physically. Without trying to change anything, simply take note of how your body feels.... and notice how you are feeling mentally.

Mentally scan your body now, looking for areas of tension. Where is your body the most tense?

Notice now where your body is most relaxed. See that these areas of relaxation are slowly getting larger....

Now turn your awareness to your breathing. Simply notice your breathing, without making any effort to change your breathing in any way.

Imagine breathing in relaxation.... and breathing out tension.

Feel yourself becoming more relaxed with each breath.

Focus in on areas of tension in your body, and imagine directing your breath to these areas. Feel the breath drawing in relaxation.... and as you exhale, imagine the tension draining away from each area of tension. Allow your breathing to relax your body.

Feel your body and mind becoming relaxed.... calm.... peaceful.

Deeply relaxed and calm.

Imagine that you are walking along a path... entering a wildlife sanctuary. This wildlife sanctuary is a preserved nature area... maybe in the wilderness, or perhaps in the middle of a city.

The path is paved... just wide enough for walking. Enter the wildlife sanctuary, walking along the path. Wild grass grows beside the path, and there are trees on both sides.

Birds are singing off in the distance.

It is a beautiful, sunny day. The air is pleasant and warm, a slight breeze making it even more comfortable. Feel the sun shining down on you... warming and relaxing your body.

Take a deep breath, enjoying the fresh air. Breathe out, feeling invigorated.

Take another deep breath in.... and out...

Continue to breathe the fresh, clean air.

The path curves up ahead, continuing deeper into the beautiful wildlife sanctuary.

As you continue along the path, you admire the scene around you. Small trees grow near the path, their bark smooth and light colored... small round leaves twisting gently in the breeze.

Further back from the path, larger trees grow. There is a variety of trees.

Wildflowers grow in the grass right next to the path.

As you round a curve in the path, you can see up ahead a clearing.... it is a pond, or a small lake.

You can see up ahead that the path continues next to the water.

As you walk toward the water, the sun shines down, birds sing, a breeze blows... it is so peaceful here. Such a beautiful day. You feel very content.

Continue to walk toward the pond, seeing the reeds growing among the grass near the water. As you approach the pond, you can hear even more birds singing. Getting closer to the water, you see the reeds getting thicker toward the water's edge, and continuing around the shallow edges of the pool. The deeper water toward the center is smooth.

See the ducks swimming.... leaving small wakes behind them... the water flowing out in a V shape as the birds slowly swim through the water.

As you continue along the path, you walk beside the pond, enjoying the sights and sounds of this wildlife sanctuary.



Up ahead, the paved trail connects with a wooden path, like a dock, that extends over the water and to a bird watching blind. This would be a wonderful place to sit.

Imagine yourself continuing along the paved trail, approaching the wooden path.

You can see more birds now, black birds with red wings darting in and out of the reeds. Geese. Loons. Sparrows. Chickadees.

A muskrat swims among the reeds, then dives under the water.

You are almost to the wooden path now. Step onto this path if you wish, walking above the reeds and the mud at the sides of the pond.... now over reeds and water. The blind is located right in the middle of the reeds, but above them, so you are directly among the birds.

The blind has wooden sides, with openings that you can look through, and inside this structure there are comfortable benches where you can relax. The sides go slightly higher than the top of your head, and the top of the blind is open to the sky.

Imagine sitting on a bench, and closing your eyes for a moment to simply enjoy the sun and the peaceful sounds of the wildlife around you.

(Pause)

Look around now, at the beautiful scenery around you. The wildlife sanctuary is such a calm, serene treed area with this lake in the middle. Imagine peering through the window of the blind.... Look out over the water, admiring it's stillness... reflecting the blue sky and a few small white clouds. Across the water, in the distance are more trees... and beyond that, a grassy, green hill.

This scene makes a perfect picture, with water, trees, hills, and sky....

Imagine looking out another opening in the blind, looking a different direction. Look out across the reeds.... along the edge of the pond. See as a deer emerges from the trees to drink from the pond, delicately stepping through the reeds to water. See the water dripping from its muzzle as the deer raises its head. The deer turns and disappears back into the trees.

Another muskrat swims by.

A colorful duck flies overhead, and spreads its wings to descend and land in the water. Water sprays and splashes out to the sides of the duck as its feet skim the surface, before finally lowering its body, folding its wings, and swimming. Another duck follows, landing in the water to swim alongside the first one.

A small bird lands right on the top edge of the blind, and looks at you, chirping pleasantly. The bird stays for a few moments before flying off.

Relax in this peaceful wildlife sanctuary. You may want to imagine laying back and closing your eyes, or continuing to look around. Imagine spending time however you wish, here in this peaceful place.

(Pause)

You are so relaxed and calm.

At peace.... content.

Relax for a few moments longer in this wildlife sanctuary.

You are feeling calm and relaxed, and you can return to this state whenever you need to in order to feel calm and at peace.

Keep with you this feeling of relaxation while you slowly return your awareness to the present.

Keeping your eyes closed for a few moments longer, notice the surface you are on. Notice the feeling of your clothing against your skin.

Turn your attention to the sounds of your environment around you.

Feel your mind and body reawaken as your awareness of your surroundings increases.

Open your eyes, looking around you at your surroundings. Become fully aware of the environment around you.

When you have returned to your usual level of alertness, you can return to your day, feeling awake, calm, and relaxed.

## Appendix E

### Some Possible Anchors for Guided Meditation

Breathing	Body Scan	Progressive Muscle Relaxation	Visualization	Coloring
<ul style="list-style-type: none"> <li>• How the breath feels in the belly.</li> <li>• How the breath feels in the nose.</li> <li>• How the breath feels in the throat.</li> <li>• Rise and fall of the belly.</li> <li>• Location of the breath (chest v. belly).</li> <li>• Thinking about slowly letting the air out of a balloon.</li> <li>• Imagine you are blowing out birthday candles.</li> </ul>	<ul style="list-style-type: none"> <li>• Any areas of tightness.</li> <li>• Any squirmies or fidgeties.</li> <li>• Any tingling.</li> <li>• Areas that feel relaxed.</li> <li>• How the body feels where it connects to the chair or ground.</li> <li>• Any changes to body sensations.</li> <li>• Awareness of the breath.</li> </ul>	<ul style="list-style-type: none"> <li>• How the muscles feel when tensed.</li> <li>• How the muscles feel right before they are relaxed.</li> <li>• How the muscles feel at the moment they are relaxed.</li> <li>• How the muscles feel immediately after they are relaxed.</li> <li>• Any other bodily sensations.</li> <li>• Awareness of the breath.</li> </ul>	<ul style="list-style-type: none"> <li>• Notice the sights.</li> <li>• Look to your right, look to your left. What do you see?</li> <li>• Notice the smells all around you.</li> <li>• Notice the sounds all around you.</li> <li>• See if you can identify the furthest away sound.</li> <li>• Notice how things feel in the mindful place. Is the ground hard or soft? Pet any animals there.</li> <li>• Awareness of the breath.</li> </ul>	<ul style="list-style-type: none"> <li>• Sounds of the pencil on paper.</li> <li>• Changes in sound.</li> <li>• The color itself.</li> <li>• Changes in darkness of the color.</li> <li>• How the pencil feels in their hand.</li> <li>• Changes to how the pencil feels.</li> <li>• Thickness of the line.</li> <li>• Changes to thickness of the line.</li> <li>• Awareness of the breath.</li> </ul>