

b. MINDFULNESS IN SCHOOLS

“Mindfulness is: paying attention, on purpose, in a particular way, in the present moment, non-judgmentally, and with openness, curiosity, and kindness.”

Jon Kabat-Zinn

- **Introduction**

Beginning in the late 1970s, mindfulness-based practices were modernized and brought into the health care mainstream by pioneering scientist Jon Kabat-Zinn and his colleagues at the University of Massachusetts. Mindfulness practices are now taught in K-12 classrooms across the country, in the military, in professional schools, and in corporations, startups, and nonprofit organizations. “Mindfulness” is defined by the Greater Good Science Center (<http://greatergood.berkeley.edu>) as a moment-by-moment awareness of our thoughts, feelings, bodily sensations, and surrounding environment. It involves curiosity, acceptance, and openness (Bishop, et.al., 2004), meaning that we pay attention to our thoughts and feelings without judging them—without believing, for instance, that there’s a “right” or “wrong” way to think or feel in a given moment. Mindfulness can cultivate a sense of inner kindness and self-compassion, which in turn can decrease stress and depression, and increase life satisfaction (Morey, J., 2016) When we practice mindfulness, our thoughts tune in to what we’re sensing in the present moment, rather than rehashing the past or imagining the future. Mindfulness practices are designed to develop and strengthen the mind through increasing the ability to focus, recognize and manage emotions, make better decisions, and empathize in relationships.

- **Why is Mindfulness Needed in Education?**

Mindfulness helps youth deal with stressors in their lives. The development of mindfulness - the intentional nurturing of positive mind states such as kindness and compassion, improves the ability to manage a number of significant psychological challenges associated with stress including:

Feeling overwhelmed: the sense that life, and particularly your own thoughts and emotions, is “too much to handle”

Busyness: the sense that “doing things” has become compulsive; that you are constantly avoiding simply being with yourself

Rumination: the sense that the same stressful thought patterns “loop” over and over again in your mind without being questioned

Dissociation: the sense that you maintain unhealthy psychological distance from life and from people, cut off from your own and other people’s emotions

Narcissism: the sense that life is about defending, protecting and enhancing one’s sense of self; a lack of empathy for the needs of others and an inability to take compassionate action.

According to Mindful Schools, healthy stress is a natural part of life, including during childhood. Children and adults alike need to be challenged in order to grow and develop. In the modern education system, healthy stress is frequently replaced by toxic stress. Toxic stress occurs when life’s demands consistently outpace our ability to cope with those demands. Mindful Schools further describes how toxic stress impairs attention, emotion and mood regulation, sleep, and learning readiness daily in American

classrooms. Even more troubling, according to their research, is prolonged exposure to childhood toxic stress, which can have a lifelong impact on both mental and physical health.

Toxic stress starts as decreased productivity and creativity. It can escalate to more serious symptoms like frequent anxiety, frustration, and even dissociation. Children who have not suffered adverse childhood experiences (ACEs) may struggle with frequent “mismatches” between the severity of a stimulus (a pop quiz) and their response (loss of peripheral vision, sweating, nausea, terror and immobility). In children suffering from trauma, these “mismatches” become chronic and habitual. To transform habitual responses, mindfulness skills need to be practiced regularly when not in “flight-fight-freeze” mode. (For more information on childhood ACEs please visit: <https://www.cdc.gov/violenceprevention/acestudy/> and <https://s-media-cache-ak0.pinimg.com/736x/29/d0/35/29d035b0d30e9fc046a446205f5d1782.jpg>)

• **Effects of Mindfulness on the Brain**

While we may be able to track many of the external benefits mentioned above to the practice of mindfulness, internally our brains may be positively influenced. Currently, many of the studies on neurobiological changes associated with mindfulness are with adults, with a need for further research involving youth.

Sara Lazar of Harvard Medical School and Massachusetts General Hospital studied how an 8-week mindfulness-based stress reduction program affected the brain of adults who had never meditated before. This study found grey matter thickening in 4 areas important for cognition over the 8 weeks among adults who meditated vs. controls who did not meditate. These results are depicted in Table 1.

Table 1.

<u>Area of Brain</u>	<u>Function</u>	<u>Change</u>
Posterior Cingulate	Mind wandering, self-relevance	Grey matter thickening
Left Hippocampus	Learning, cognition, memory, emotional regulation	Grey matter thickening
Temporo Parietal Junction	Perspective taking, empathy, compassion	Grey matter thickening
Pons	Production of regulatory neurotransmitters	Grey matter thickening
Amygdala	Fight/flight, anxiety, fear, general stress	Decrease in size

Adapted from: https://www.washingtonpost.com/news/inspired-life/wp/2015/05/26/harvard-neuroscientist-meditation-not-only-reduces-stress-it-literally-changes-your-brain/?utm_term=.1a28b13ccc0b

• **Benefits of Mindfulness**

Studies have shown that practicing mindfulness, even for just a few weeks, can bring a variety of physical, psychological, and social benefits.

- Mindfulness is good for our bodies: A seminal study found that, after just eight weeks of training, practicing mindfulness meditation boosts our immune system's ability to fight off illness.
- Mindfulness is good for our minds: Several studies have found that mindfulness increases positive emotions while reducing negative emotions and stress. Indeed, at least one study suggests it may be as good as antidepressants in fighting depression and preventing relapse.
- Mindfulness changes our brains: Research has found that it increases density of gray matter in brain regions linked to learning, memory, emotion regulation, and empathy.

- Mindfulness helps us focus: Studies suggest that mindfulness helps us tune out distractions and improves our memory and attention skills.
- Mindfulness fosters compassion and altruism: Research suggests mindfulness training makes us more likely to help someone in need and increases activity in neural networks involved in understanding the suffering of others and regulating emotions. Evidence suggests it might boost self-compassion as well. (<http://greatergood.berkeley.edu/topic/mindfulness/definition>)

Mindfulness Develops the Mind's Ability to:

Attend	• This strengthens our "mental muscle" for bringing our focus back to where and when we want it
Emotionally Regulate	• Observing our emotions helps us recognize when they occur, to see their transient nature, and to change how we respond to them.
Calm	• Breathing and other mindfulness practices relax the body and mind, giving access to peace independent of external circumstances.
Adapt	• Becoming aware of our patterns enables us to gradually change habitual behaviors wisely.
Be Compassionate	• Awareness of our own thoughts, emotions, and senses grows our understanding of what other people are experiencing.
Develop Resilience	• Seeing things objectively reduces the amount of narrative we add to the world's natural ups and downs, giving us greater balance.

(from Mindful Schools 2015)

In schools, both teachers and students benefit from mindfulness practices.

For Teachers:

- Lowers blood pressure
- Less negative emotion and symptoms of depression
- Greater compassion and empathy
- Appears to increase well-being
- Positive emotions including self-compassion
- Teaching skills
- Decreases anxiety

(Flook et al., 2003)

The Greater Good Science Center acknowledges the social and emotional challenges of today's typical classroom. While teachers are often engaging in professional development days focused on content and curriculum, addressing the social, emotional and cognitive demands of the profession are also necessary. Mindfulness seeks to enrich a classroom by helping teachers cultivate the skills to manage their presence in the classroom.