

## **MINDFUL MINUTES IN THE CLASSROOM**

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### **Abstract**

Mindfulness is being nonjudgmental, accepting, and in the present moment. Approaches based in mindfulness can benefit people of all ages socially, emotionally, and even physically. While mindfulness interventions are beginning to become more popular in the classroom for young children through adolescents, very little research has been conducted using mindfulness techniques in postsecondary classrooms, especially at the graduate level. Therefore, our study aimed to evaluate if a short, weekly mindfulness activity presented to a small group of graduate students could increase overall mindfulness. While statistically significant results were not found, qualitative information shows the group did believe this was a useful intervention. Therefore, several suggestions for future use are provided so more mindfulness activities can be used in classrooms at the graduate level. These techniques used by adults in the classroom can then be used to support the educational community and system-wide interactions.

**Keywords:** Mindfulness, Postsecondary/ Graduate-level education, Systems-intervention.

## **INTRODUCTION**

Mindfulness involves being present, nonjudgmental and open to experience. It allows us to become more accepting of ourselves as we are right now. According to Harpin, Rossi, Kim, and Swanson (2016), teachers who used a mindfulness program in their classroom have reported significant differences in prosocial behaviors, emotional regulation, and academic performance. Mindfulness education helps students with learning disabilities, decreases the impact of bullying, and helps teach empathy (Leland, 2015). Thus, mindfulness can clearly benefit everyone involved in schools.

### **Mindfulness and Early Childhood Education**

The effects of mindfulness have been studied in many different settings; one such area that includes a substantial amount of research around mindfulness is early childhood education. Studies vary in length, ranging from 6 hours of intervention across a 12-week span to 40 hours of intervention spread out over the course of a year (Viglas & Perlman, 2017; Razza, Bergen-Cico, & Raymond, 2013). Flook, Goldberg, Pinger, & Davidson (2015) examined the effects of implementing a mindfulness-based curriculum in preschool classrooms over the course of 12 weeks, totaling approximately 10 hours of instruction. Results from this study indicate that students who were exposed to the mindfulness curriculum demonstrated increased social competence and higher grades than the control group in the areas of learning, social-emotional development, and health. Another study lasting 6 weeks focused on self-regulation, prosocial behavior, and hyperactivity in kindergarten classrooms (Viglas & Perlman, 2017). Results indicated that kindergarteners in the group receiving mindfulness instruction exhibited significantly stronger self-regulation skills, more improvement in prosocial behavior, and lower levels of hyperactivity. These aforementioned studies show early childhood populations can benefit in several ways from mindfulness approaches in the classroom, even if only used for 6 to 12 weeks.

Longer studies surrounding the area of mindfulness in early childhood demonstrate similar results with overall skill gains; results of a yearlong study evaluating the effects of a mindfulness-based yoga intervention with preschool students suggest overall improvement in the area of self-regulation, particularly in the areas of attention, delay of gratification, and inhibitory control (Razza et al., 2013). Lemberger-Truelove, Carbonneau, Atencio, Zieher, & Palacios (2018) also found significant improvement in the areas surrounding self-regulation and orientation to experience (e.g., experience in the present moment). Overall, the early childhood mindfulness studies show skill gains particularly with social-emotional development and well-being.

### **Mindfulness and Elementary Education**

Many mindfulness interventions have been carried out at the elementary level with similar results to those done in early childhood. Some interventions are carried out in urban schools, specifically choosing student populations that are culturally diverse and predominantly from low income families (Harpin et al., 2016; Black & Fernando, 2013). Harpin et al. (2016) explored the effects of a 10-week mindfulness program for a group of fourth grade students. In addition to considering specific indicators in the pre-intervention and post-intervention (e.g., prosocial classroom behaviors, emotional regulation, academic competence), researchers also gathered qualitative data surrounding student thoughts about the intervention. Not only did the data show statistical significance for the intervention group on every indicator of the utilized survey, but 100% of students also reported enjoying mindfulness classes, that they would use mindfulness again in the future, and they think more people should learn mindfulness.

Black and Fernando (2013) found similar results when examining the effects of a mindfulness intervention within one school for students spanning from Kindergarten to sixth grade. Researchers implemented a 5-week program and aimed to determine whether extending the intervention would provide additional benefits to student outcomes. Results indicated that the initial intervention curriculum did lead to improved behavior in a variety of areas, including attention, self-control, participation, respect.

Another form of mindfulness program used at the elementary school level involved the practice of mindful yoga in the classroom (Bazzano, Anderson, Hylton, & Gustat, 2018). Third graders with anxiety symptoms on life satisfaction (i.e., emotional and psychosocial quality of life) participated in mindful yoga to promote stress management and improve anxiety symptoms. Results showed the intervention benefitted not only students, but also the teachers and other staff by allowing teachers, as well as students, to be more calm. Another yoga-centered mindfulness intervention led by Mendelson et al. (2010) examined whether a school-based program could lower levels of stress among urban youth. Results indicated that the intervention was well-received by students, teachers, and administrators and had a positive impact on stress responses for students. Finally, Higgins and Eden (2017) led a study focused on mindful breathing in an elementary mathematics classroom. This study differed from many other mindfulness interventions in that the researchers did not search for measurable gains; rather, they examined cogenerated understandings of how mindfulness-based breathing can encourage participants to engage students in the classroom and promote productive learning environments. The researchers found that mindful breathing can lead to collective understandings in a classroom community.

### **Mindfulness and Secondary Education**

Mindfulness in the classroom is not only impactful for young children, but studies also show positive outcomes for older students. Within secondary schools, a variety of mindful intervention have been employed. López-González, Amutio, and Herero-Fernández (2018) explored the relationship between relaxation-mindfulness, classroom climate, and academic performance in a group of 420 high school students. Results indicated that classroom climate is a mediator between mindfulness and academic performance; mindfulness does not have a direct effect on academic performance, but it does exert an influence on classroom climate, which in turn affects academic performance. Additionally, Rodríguez-Ledo, Orejudo, Cardoso, Balaguer, and Zarza-Alzugaray (2018) looked at the correlation

between emotional intelligence and mindfulness in students aged 11 to 14 years. They found a significant relationship exists between mindfulness competence and better social adjustment within a school context. Also, data suggests that mindfulness practices can act as a protective factor for mindfully attending during adolescent years.

Some secondary mindfulness interventions have focused on specific populations; one study looked at the effects of mindfulness practice on middle school students facing homelessness compared to traditional middle school students (Viafora, Mathiesen, & Unsworth, 2014). At the end of this 8-week intervention, both groups reported feeling less stressed and more relaxed, patient, concentrated, and alert. Students showed improvements in mindful awareness and acceptance and had overall positive impressions of the course; however, students facing homelessness had more favorable outcomes than the group of traditional students, including higher evaluations of the course, greater emotional wellbeing, and a higher likelihood of using mindfulness in their daily lives. A qualitative study by Wisner and Starzec (2015) tested a mindfulness skills program with students in grade 10 at an alternative school. Data analysis from this 7-month study showed students' perceived benefits to be both intrapersonal (e.g., self-awareness, self-regulation) and interpersonal (e.g., building relationships, learning to trust). Similarly, Milligan et al. (2016) implemented a mindfulness-based martial arts program with a group of high school students in grades 9-11 who were at-risk for self-regulation challenges. Findings from this intervention suggested that participants experienced decreases in cognitive errors (e.g., catastrophizing) and increases in the use of strategies such as acceptance, positive thinking, and avoiding rumination.

#### **Mindfulness in the Classroom: Adults**

As seen previously, the use of mindfulness in classrooms has shown benefits for children in early childhood populations through adolescent populations at the secondary level. However, less research has been completed at the postsecondary level. After a thorough search, we found research demonstrating the use of mindfulness in the classroom at the graduate level to be quite scarce.

**Mindfulness and Postsecondary Education.** Gray, Font, Unrau, and Dawson (2018) found significant decreases in stress levels and heightened sleep quality for undergraduate students who participated in a brief mindfulness-based intervention. Researchers have also found mindfulness-based interventions can significantly reduce stress, anxiety and depression in undergraduate students (Hall et al., 2018). Additionally, when a men's Division I athletic team participated in a five week mindfulness based intervention, they increased mindfulness and goal-directed behavior (Goodman, Kashdan, Mallard, & Schumann, 2014).

**Adults and Graduate-level Classrooms.** Mindfulness-based interventions can certainly also impact adults in several positive ways. Research has shown support for mindfulness interventions for parents and for mental health benefits for various specific populations. Specifically, researchers have found mindfulness-based cognitive therapy can help people suffering with Bipolar Disorder to be less judgmental of their own thoughts, sensations and feelings (Strange et al., 2011). Additionally, Shorey, Elmquist, Anderson, and Stuart (2015) found a negative correlation between mindfulness and aggression in women being treated for substance abuse. Lastly, lower levels of mindfulness has been correlated with higher levels of depression in new parents (Hicks, Dayton, & Victor, 2018). Thus, many needs for adult populations can be supported by mindfulness-based interventions. So, we aimed to bring this idea into the graduate-level classroom setting.

#### **The Current Study**

The current study is aimed at evaluating the impact of a short mindfulness-based activity in the graduate level classroom. A five-minute activity was implemented weekly and participants completed a pre-test and post-test to evaluate the effectiveness of the intervention. The research question is: Can a five-minute mindfulness-based activity implemented weekly help increase overall mindfulness for a group of students in a graduate-level classroom?

## METHODS

### Participants

Ten female first-year graduate students participated in this study. The participants were selected because they were enrolled in a course related to statistics and research methods. All participants agreed to be included in the study voluntarily.

### Instruments

The Cognitive and Affective Mindfulness Scale – Revised (CAMS-R) (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007) was used as a pre-test and post-test measure. The CAMS-R is a 12 item scale, with three items representing each of 4 subcategories (attention, present focus, awareness, acceptance) (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007). Acceptable internal consistency (alpha over .8) has been reported for the population in two studies with large samples (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007).

### Procedure

A group of ten students was asked to participate in the study by completing a short pre-test (CAMS-R), participating in a five-minute mindfulness-based activity each week for 6 weeks, and then completing a post-test to evaluate if the activities could produce an overall increase in mindfulness for the group. Each week, one member of the group would find an activity and lead the group through the chosen activity. The weekly activities are described below. After the completion of the six weeks of activities, each participant completed the CAMS-R as a post-test.

The activities:

Week 1: The participant leading the exercise passed out cupcakes to the entire class. She asked all participants to remove their shoes and to try and place our feet on the floor. She also showed alternative ways to sit that may be more comfortable for some participants, including cross legged and half or full lotus. Participants were asked to face their cupcakes while grounding their bodies, aligning hips, shoulders and ears. Next, participants were asked to start paying attention to the sounds in the room, then to notice where tension is carried in the body naturally. Then, participants were asked to focus on the smell of the cupcake to engage another sensation. Next sensation was focused on breathing. Finally, sensation was focused on taste as participants were able to eat their cupcakes.

Week 2: Week two participants followed a guided meditation through a mindfulness application called *Headspace*. The session focused on teaching participants how to breathe, as well as noticing sounds and how the body is feeling (e.g. hands on legs, feet on the floor). The leader also introduced everyone to a children's book about mindfulness entitled *I Am Peace: A Book of Mindfulness* (Verde, 2017). This book brings the tenants of mindfulness to a kid-friendly level and includes a guided meditation at the end.

Week 3: Week 3 participants completed a reflection activity. The following questions were written on the board in the front of the room.

What touched me today?

Who or what inspired me today?

What made me smile today?

What's the best thing that happened today?

List things for which you are feeling grateful.

Participants were given three minutes to respond to any or all of the questions in writing or simply by thinking about how they would respond. Then, participants were allowed to share their responses with the group.

Week 4: Week four was a mindful walk outdoors, where participants focused on various senses. Participants were reminded to be cognizant of walking at a natural pace and focusing on the

movement throughout their bodies. Each minute the focus was on a different sense (sight, sound, scent, and touch). The last minute, participants were asked to incorporate all senses. These walks can be very beneficial for people with desk jobs or those who spend large quantities of time looking at computer screens; rather than checking email or social media during a break, taking a mindful walk allows for a different kind of relaxation. This exercise can also be adapted for kids in the form of taking a *safari walk* to explore flora and fauna.

Week 5: This week fruit snacks were used to give a focus to the activity. The leader of the activity read aloud a script that instructed participants to connect to breath and body. Participants were asked to notice the thoughts, emotions and sensations they were experiencing. Next, focus returned to the fruit snack and participants thought about how they were made, and hands it passed through to get to them. Next they were asked to notice the bodily feelings experienced when just looking at the fruit snack. Then they were asked to smell it and notice those reactions, then to put the fruit snack in their mouth and roll it around without biting it. Last they were instructed to slowly chew it and notice the motions and process of chewing, and finally swallowing it, noticing movement down their throats and to their stomachs.

Week 6: The final week, participants were given an activity that could benefit both children and adults. Participants blew bubbles as a method of stress reduction; first taking a deep breath and visualizing a thought or situation of which they wanted to let go. Blowing into the wand, participants imagined breathing out whatever situation or emotion needed to be released, then they watched it float away and eventually pop. The first round was narrated by the researcher, and the second round each participant listened to a recording that provided guidance.

## RESULTS

In order to evaluate the overall impact on mindfulness, a dependent-samples t-test was conducted using SPSS. Results showed no significant increase in overall mindfulness for the group; however, qualitative results showed participants enjoyed the intervention. There are several possible reasons for the lack of significance in the results that will be discussed in the discussion section.

## DISCUSSION

Mindfulness-based interventions can be successfully used in the classroom at all ages. Flook et al. (2015) showed implementing a mindfulness-based curriculum in preschool classrooms could increase social competence, learning, social-emotional development, and health. Third grade students showed lessened anxiety and better stress management after participating in mindful yoga in the classroom (Bazzano et al., 2018). High school students have shown decreases in cognitive errors (e.g., catastrophizing) and increases in the use of strategies such as acceptance, positive thinking, and avoiding rumination following a mindfulness-based intervention (Milligan et al., 2016). Finally, mindfulness-based interventions can significantly reduce stress, anxiety and depression in undergraduate students (Hall et al., 2018).

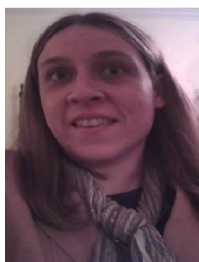
While the aforementioned evidence shows that mindfulness can support social, emotional, and physical well-being across the ages, we struggled to find research demonstrating the use of such interventions in the graduate-level classroom. The current study employed a brief mindfulness-based activity in the graduate-level classroom on a weekly basis for 6 weeks to see if the activities could increase overall mindfulness for the group. The research question was can a five-minute mindfulness-based activity implemented weekly help increase overall mindfulness for a group of students in a graduate-level classroom? While no significant increase in overall mindfulness was shown in the group, qualitative analysis showed the participants enjoyed the activities.

There are several limitations to this study that could have impeded our ability to find significant results. First, timing for the post-test was approaching finals for the semester, so participants being

graduate students could have simply been more stressed due to external factors. Second, our group was small with only ten participants, future studies could employ these interventions with a larger population. Next, we only met once a week and completed a five-minute activity. Future studies could require daily participation in the activities or possibly use a longer activity. Lastly, we allowed participants to choose the activities for the week, which while we believe increase buy-in, could have lowered the empirical nature of the activities. In future studies, the researcher could choose short activities that have a clear research base.

While we did have limitations, we believe this study does still contribute in important ways to the field of education. Specifically, it is one of the first studies employing mindfulness-based activities in a graduate-level classroom. We know graduate school, while exciting, can be very stressful, so instilling more mindfulness in graduate students could better overall well-being. Additionally, from a systems perspective, graduate students as adults interact in several settings beyond the classroom, with family, coworkers, neighbors, and colleagues. Therefore, benefits of learning new mindfulness strategies could support better overall interactions beyond the classroom setting.

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