

Mindfulness Interventions in the Classroom

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### Abstract

This study examines the results of mindfulness exercise interventions with a third grade class in Southeast Alaska. Students in the study demonstrated a lack of impulse control and an inability to engage in productive conflict-resolution behaviors on their own. These undesirable behaviors caused frequent disruptions during direct instruction and created a hostile classroom climate. Over the three week intervention period students participated in brain breaks that included physical movement and meditation exercises. Pre-intervention interviews were conducted to gauge student understanding of self-control and existing strategies for self-calm and conflict with peers. During the intervention period classroom behaviors were observed and documented. Disruptive behavior during direct instruction was monitored and tracked. Post-intervention interviews were conducted to determine growth in understanding of self-regulation. These interviews were used to determine any adoption of new strategies for self-calm and conflict resolution. Results showed growth in all areas as well as in increased understanding of self-control. This study supports the practice of mindfulness exercises during the teaching day. It also supports the practice of conducting interviews with students at the beginning of the school year to establish an understanding of students' behavior strategies.

## **Introduction**

My third grade class had a long history together, beginning in kindergarten. There existed among these students a great deal of discord. They displayed a lack of self control and an inability to engage in conflict resolution on their own. They lacked impulse control during lessons and if they experienced a conflict they did not hesitate to air their grievances during class. This was a distraction for classmates not involved in the conflict, was stressful for the class as a whole, and it appeared to cause distress for the students involved in the conflict.

I had used interventions throughout the school year to include social emotional lessons, direct interventions as conflicts occurred, calls to parents, positive reinforcement, and use of positive, age-appropriate literature to promote character development. These interventions did not have the desired effects.

The purpose of this study was to see if mindfulness exercises before direct instruction would have an effect on student self-control and student discord. Data was collected before, during, and after the intervention period, including pre and post intervention interviews, observations, and tracking disruptions and disruptive behavior.

The main question that I sought to answer was: How will mindfulness instruction and practices with third graders affect their self-control during social interactions and level of self-control during direct instruction time?

## **Literature Review**

Though mindfulness as a practice has been around for centuries (e.g. Buddhism), (Hanley Abell, Osborn, Roehrig, & Canto, 2016) it is a recent consideration as a classroom practice. As a result, there is a generous amount of research into the benefits of mindfulness instruction and its impact on student behavior. The research also looks at the benefits mindfulness can have in

abating teacher burnout. Mindfulness is defined by some as doing things with intention. There is literature to support teaching with intention, as a part of mindfulness in education, for improved student outcomes. It is because of the many definitions of mindfulness that some researchers give mindfulness less merit than others (Hanley, Abell, Osborn, Roehrig, & Canto, 2016).

### **Mindfulness Definition**

Many of the studies cited in the research followed classes that participated in mindfulness instruction. The definition of mindfulness was generally the same. The definition being, students should focus on the present without judgement, without worrying about the past or the future (Thomas, 2013). Students were instructed to use breathing as a locus of control (Keilty, Gilligan,, Staton, & Curtis, 2017; Roeser et al., 2013). While there was not much in the way of quantitative data to support positive outcomes for the students, in all the studies participants reported an increased ability to self-regulate. Teachers noted a decrease in bullying behavior and a decrease in disruptive classroom behavior. Students reported an improvement in their relationships with their peers, an increased ability to concentrate, and a decrease in test anxiety (Leland, 2015).

### **Abating Teacher Burnout**

The literature in support of mindfulness in education describes the need for teachers to practice mindfulness as a means to avoid burnout (Anderson, Levinson, Barker, & Kiewra, 1999). With teaching being one of the most stressful occupations today, it becomes increasingly important for teachers to maintain physical and mental health (Anderson, Levinson, Barker, & Kiewra, 1999; Jennings, 2011). The literature suggests that meditation, yoga, and mindfulness instruction can all benefit teachers in managing stress and avoiding burnout. This in turn improves student-teacher relationships (Jennings, Snowberg, Coccia, & Greenberg, 2011), and ultimately, student outcomes. The abstract in the study by Roeser says, “By coping more

effectively and being more resilient, we believe, teachers conserve physical and mental energies that are then available to invest in effectively managing, relating to, motivating, and teaching students” (p. 788). An additional benefit is that when teachers practice mindfulness they can then model this behavior for their students.

### **Teaching With Intention**

In the study by Sherretz the data supported teaching with mindfulness; mindfulness being defined as “caring for your students.” The study followed three teachers whose instruction was constructivist in nature and included differentiation. Their students enjoyed learning and a positive classroom climate was created by all three teachers (Sherretz, 2011). Leland (2015) emphasizes the importance of mindful instruction versus mindless instruction. She posits that intentional lessons can make all the difference to students. If information is made relevant to students’ lives then they are much more likely to engage in their own learning (Leland, 2015). Teaching with mindfulness also includes providing movement breaks for students according to an article by Dinkle (2017) that cites a survey of teachers who use them. These teachers note increased on task behavior and increased engagement in lessons after physical activity breaks. By giving students these brain breaks or physical activity breaks, teachers practice mindful education by meeting the needs of their students.

### **Dissenting Opinions**

There are many different definitions of mindfulness and many different ways to utilize it in the classroom. Mindfulness can be defined as teaching with intention; (Sherretz, 2011) it is defined as focusing on the present without judgement; (Thomas, 2013) or it can be the practice of yoga or mediation (Anderson, Levinson, Barker, & Kiewra, 1999). It is because of these many varying definitions that Hanley (2016) argues that educators should be cautious in using

mindfulness as a tool. The definition can be too vague, Hanley argues (2016). There are other reasons to put less stock in mindfulness according to Hanley. They posit that participants may feel pressure to report positive outcomes because of the nature of the study and the popularity of mindfulness practices. This can compromise the integrity of mindfulness studies therefore rendering these studies less reliable (Hanley, 2016). Other studies use control groups to account for such variables to preserve the integrity of their studies (Anderson, Levinson, Barker, & Kiewra, 1999; Jennings, Snowberg, Coccia, & Greenberg, 2011; Kielty, Gilligan, Staton, & Curtis, 2017).

Hanley's article also discusses the averse affects that practicing mindfulness can have on people who suffer from trauma history or psychosis (2016). The article cautions against relying too heavily on mindfulness practices as a "panacea" because of the unknown affects it may have on certain people. This is definitely something to consider in the classroom as individual students come with their own personal histories and possible unknown backgrounds.

## **Conclusion**

The prevailing opinion is that mindfulness instruction is beneficial for students and their social and academic outcomes. The literature also supports mindfulness practice for teachers, not only so that they can model the positive behavior for their students, but also so that they can avoid occupational burnout and work-related stress. The literature gives definitions that can help educators think of mindfulness in many different ways and it provides examples of various ways to implement mindfulness in the classroom. Though there is literature that does not fully support the use of mindfulness practice, educators can generally use this research to inform themselves as to the possible drawbacks to mindfulness practice and avoid any averse affects on their students. Overall, there is plenty of support for mindfulness practices for teachers and students.

### **Theoretical Framework**

Practicing mindfulness, or meditation, has known benefits ranging from reducing stress to improved cognitive abilities (Hölzel, et al., 2011; Kabat-Zinn, 2002). Participants who practiced meditation in an 8 week long study by Hölzel, et al. showed a significant increase in grey matter density on brain scans as compared to the control group (2011). While meditation is known to originate in eastern religions and cultures, it has caught on in the western world for its healthful benefits (Kabat-Zinn, 2002). Meditation need not be linked to any one religion. Kabat-Zinn explains it accordingly, “When it comes right down to it, meditation is about paying attention” (2002, p. 68). Paying attention is a key factor in student learning.

There is an undeniable mind body connection and we know that movement improves cognitive ability (Jensen, 2005). “We know exercise feeds the brain with oxygen, but it also feeds it neurotrophins (high-nutrient chemical “packages”) to increase the number of connections between neurons” (Jensen, p. 63). An optimal learning environment will include movement (Jensen, 2005). Students also require an emotionally safe environment in order to learn (Jennings, 2015; Jensen, 2005). Creating this emotionally safe environment is in the hands of the teacher and each student which is dictated by their behavior (Jennings, 2015). Students do not always come to school equipped with the pro-social skills necessary to create an emotionally safe environment (Jennings, 2015). These skills can be cultivated through modeling, practice, and social interaction at school (Jensen, 2005).

### **Research Question**

This research took place in a third grade classroom in Southeast Alaska. Participants were 8 to 9 years old. There were 19 students in the class which was comprised of one African-American male student, two hispanic female students, and the rest are caucasian. This class was

chosen for this study because they had a history of discord, lack of self-control, and disruptive behaviors.

In this study I used mindfulness instruction in my classroom to determine if there would be positive outcomes with regard to decreased discord among students and decreased classroom disruptions. I introduced the definition of mindfulness to my students and modeled mindfulness behavior. I gave students intentional brain breaks with physical activity, stretching, and breathing exercises. We used mindfulness apps or websites such as [MindYeti.com](http://MindYeti.com)© to practice mindfulness exercises along with our movement breaks that we normally took. I promoted a calm and safe classroom environment by practicing and modeling mindfulness as their teacher.

**Questions.** How will mindfulness instruction and practices with third graders affect their self-control during social interactions and level of self-control during direct instruction time? How will mindfulness instruction, focused on breathing, influence students' ability to self-regulate? How will defining mindfulness for my students influence them and whether they are present and focused on the tasks at hand? Will mindfulness instruction and practices create a calm classroom with less distracting or disruptive behavior? Will mindfulness practices help me as a teacher to model a more calm attitude that my students can emulate? Would mindfulness exercises help students to practice better self regulation when dealing with classmates with whom they do not get along?

### **Data Collection**

**Observations.** Observations occurred daily for three weeks. The time frame of this study was limited to three weeks due to the time constraints of my research course. Observations were ongoing during the school day with special attention paid to post mindfulness exercises or



mindfulness breaks. I observed student behavior during lessons post mindful breaks whether it be a reading from one of Maureen Garth's (1991 & 1992) books or a MindYeti.com© session.

**Field Notes.** Notes were taken on printed lesson plans to coincide with behaviors as they occur during lessons and activities. Documenting student quotes was important to capture as they happen, rather than at the end of the day in my journal. I also made more thorough notes in my journal at the end of the day.

**Interviews.** I conducted pre and post mindfulness instruction interviews of 4 - 6 students who are able to articulate their thoughts and feelings (see Appendix A). This was determined based on what I already know about their communication abilities. I recorded their responses via audio recording.

**Counter.** To track disruptions I kept a counter in my hand during math lessons only. I tallied the number of disruptions and tracked them over the three week period. Disruptions were counted as: blurting, students talking over me, students bickering with each other, off task behavior, and tapping, humming, or making noise with body or mouth.

## **Analysis**

Internal validity in this study was accomplished through triangulation, the analysis of multiple sources of qualitative data (Merriam & Tisdell, 2016). A content and narrative analysis of interviews, observations, and field notes was conducted.

## **Methods**

Prior to the three week observation period I conducted pre-observation interviews with chosen students (Appendix A). I recorded verbal responses on a recording app on my iPhone for clarity and accuracy.

During the three week observation period I introduced the concept of mindfulness to my students via [MindYeti.com](http://MindYeti.com)©. We used this website for brain breaks at least once every day. I conducted a mindfulness exercise with each of my classes; one in the morning class and one in the afternoon class. Students had the choice to opt out of any of the meditation exercises. Students who opted out left the room or started on math early, blocking out the mindfulness activity.

I printed my lesson plans out so that I could jot down observations as I carried out my regular lesson plans. I gave students additional brain breaks as needed, and noted behaviors and comments by my students on my lesson plans.

During the three week observation period I encouraged students to use the breathing techniques at times of the day other than just during our brain breaks. I reminded them that they could use them in place of reacting to a classmate or to calm down after a difficult interaction with a peer.

During math I kept a counter with me during the direct instruction portion of my lessons. I kept a tally of the number of disruptions and redirects during this time. I tracked the data from each lesson each day. I analyzed this data for any patterns after the three week period was over.

I kept notes in my journal of the general behavior and interactions of my students for the entire three week period. I observed student interactions during transition times and during lessons. I documented student interactions involving kindness, respectful behavior, as well as disrespect.

I conducted post-observation period interviews with the same students I interviewed prior to the observation period. I interviewed other students who showed drastic changes or had much to say about the mindfulness practices.

I surveyed all students using an exit ticket. Immediately following participation in a mindfulness exercise, I had each student write on a PostIt© note how they felt. I tallied and charted their responses.

### **Results and Data Analysis**

Current research indicates that practicing mindfulness in the classroom helps students to pay attention (Kabat-Zinn, 2002), improve self-control (Keilty, Gilligan,, Staton, & Curtis, 2017; Roeser et al., 2013), and increase positive interactions with their peers (Leland, 2015). My students have displayed a need for improvement in each of these areas. During the intervention period I incorporated mindfulness exercises into our daily classroom routine to see if my students would experience results congruent with current research results.

**Pre- Intervention Interviews.** I conducted oral interviews with ten of my third grade students. Time constraints prevented me from interviewing each of my students. I conducted interviews on the first two days of my observation period. I asked each student the same questions (see appendix A). I used questions that I thought would give me an idea of what they already knew about self control and mindfulness. I also wanted to get an idea of what strategies they already employed to deal with stress and conflict. I recorded these oral interviews using a recording app on my phone, then transcribed student answers to have accurate documentation of their responses.

**Self-control.** When asked how they show or practice self-control, three students admitted that they did not know what self control was. Two students gave answers more in line with a question about conflict resolution. One student admitted to not being able to practice self control very well. One student understood what self control was but was not able to describe how they

practiced or showed self control. Two students answered that they use strategies they learned from Tim and Moby from BrainPop© (an on-line educational website that provides video lessons on almost all subjects including social and behavioral health lessons). Three students said they knew what self-control was and they were able to describe ways that they demonstrate self control.

One subject described his strategy as:

“There’s this method I use, I go up my pinkie and I go in and out I do belly breaths, and I do turtle shell, I meditate sometimes to get myself back into control.”

Another described it as:

“Yes, the way I show self control is um, just, looking like I’m not doing much, just walking down. Not goofing off or anything...that’s what I use.”

**Self-calming strategies.** When asked about how students calm themselves down when they are stressed, several of them said they used breathing or counting strategies. Some of them answered the “calming down” question as if it was a question about conflict strategies.

One subject gave the following answer:

“Well, sometimes I don’t handle it super good. but when I do handle it good I just talk to them politely, when I do.”

Another student’s strategy involved pain:

“Um, I don’t really have like a stressful [sic], so like I try squeezing my knuckles, or just try popping my knuckles, or just try giving myself a tiny bit pain to calm myself down.”

When asked about how he calms himself down when he’s stressed another student admitted, “Usually I don’t.”

**Mindfulness definition.** The students' understanding of what mindfulness meant varied.

Some of their definitions included:

- “Mindfulness is having aware [sic] of your body and your surroundings around you. And it also means that you can control yourself and you can know where you put stuff.”
- “To know what your surroundings are?”
- “Be mindful of your body.”
- “I think it means mind-control.”
- “I think mindfulness is the opposite of clumsiness.”
- “Being mindful of other people or things.”
- “Um, thinking about what other people, like thinking about how other people feel.”

Two students did not know what mindfulness was.

**Conflict-resolution strategies.** Most of the students had strategies for when they disagreed with someone. The most popular strategy was walking away or trying to come up with a solution that benefited all parties. One student admitted to not having a strategy for conflict and admitted to handling conflicts with others, “not that well.”

The three week intervention period was interrupted on five days due to one planned field trip; two unexpected days due to major traffic delays; and two days of standardized testing. Major traffic jams caused me to miss the first part of the day for two days which disrupted our normal classroom routine and time for interventions. On all the other days the class practiced breathing and mindfulness exercises with MindYeti.com©.

**Disruptions.** The amount of disruptions during daily math instruction in the mindfulness intervention period was consistent with pre-intervention frequencies, about 12 per lesson. The

least amount of disruptions during a lesson was 6 and the most was 13. These disruptions were counted using a tally tracker on my cell phone during math direct instruction. Behaviors that counted as disruptions were talking to self or classmate, making noise with body or mouth (e.g. tapping, drumming, humming), and off-task behavior such as playing with school supplies or getting out of their seat at inappropriate times.

**Social interaction.** In the first week of interventions there were two major conflicts at dismissal. The first conflict involved an unresolved dispute that happened during art class. It carried over into the classroom where the students called each other names from their desks. The students would not stop shouting at each other despite teacher intervention. The conflict was not resolved but the situation dissolved on its own due to dismissal.

The second conflict involved two students who kept walking by each other during classwork time and insulting each other as they walked past. The incident escalated into shouting. Neither student apologized and the conflict resolved when the students were separated at dismissal.

During the second week of interventions there were no major incidents with regard to student conflict inside the classroom but two students got into a fight during recess. The one student who punched the other had had a morning of on task behavior and demonstrated a level of self-control that was an improvement from the first and second quarter of school. His behavior at recess was inconsistent with his demonstrated level of self control in the classroom that morning.

## **Data Analysis**

The results of my data collection show both expected and unexpected outcomes. While the mindfulness exercises produced a more relaxed classroom environment, disruptions during instruction remained about the same. There did not seem to be a significant improvement with discord among students. My students did show growth in their understanding of self-control and in the area of conflict resolution.

**Post-intervention interviews.** I interviewed ten students, nine of them whom I interviewed pre-intervention (Appendix B). One of the pre-intervention interviewees was absent when I conducted the post-intervention interviews. The responses showed growth and new awareness about mindfulness. The initial interviews showed a general lack of understanding what self-control meant. In my post-intervention interviews every student knew what I meant when I asked them about how they practice self-control. Table 1 shows particular growth by “David”, one of my students who typically has trouble with self-control and avoiding conflict with his peers.

Table 1: Comparison of responses from “David”

Question:	Pre-Intervention Response	Post-Intervention Response
How do you practice self-control?	Not that well.	Walking away from somebody.
How do you calm yourself down when you are stressed?	Usually I don't.	Deep breaths.
What do you think mindfulness means?	I don't know.	Keeping yourself to yourself.

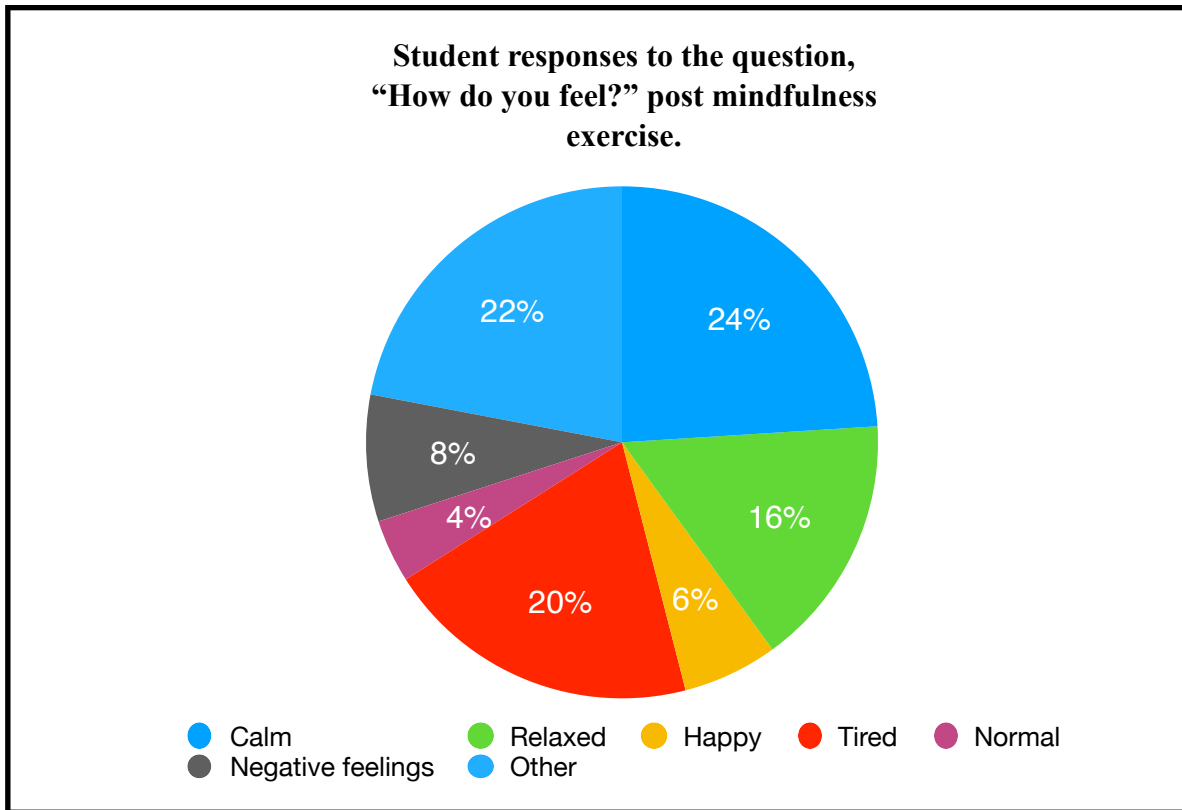
Question:	Pre-Intervention Response	Post-Intervention Response
What do you do when you are in a disagreement with somebody?	I.....I..... How do you handle the situation? Not that well. Not that well? Yeah.	Walk away.
What did you learn about mindfulness?	N/A	I learned that mindfulness is to like, not touch somebody. Like, keep yourself to yourself.

The interview results indicate that the students learned social emotional lessons from the MindYeti© exercises. Each meditation exercise has a theme. They incorporate important social emotional lessons into the mindfulness exercises with topics such as gratitude, kindness to others, and happiness. Several student responses indicate that they took the MindYeti© message to heart as they were doing their breathing exercises. Several students responded to the question about calming themselves down by mentioning one of the strategies from MindYeti©. Some sample responses are:

- “I practice self control by breathing into my nose and exhaling out of my mouth. I try thinking happy thoughts and I try to count to ten with my fingers”
- “I practice self control by when I’m angry I just try to think of something happy.”
- “I usually think of a happy thing in my mind and I calm down.”

When asked about what they learned about mindfulness, student responses indicated a positive influence from the social emotional lessons taught through MindYeti©. Some responses were:





- “I think mindfulness means like MindYeti©, you calm down, find your MindYeti© body and you think of something good and you try relaxing and focusing on what you’re supposed to do.”
- “Being kind to others and stuff like that.”

**Reactions to mindfulness exercises.** Overall, students responded well to practicing mindfulness. After participating in one mindfulness exercise students would often ask to do another one. I took a poll of my students immediately after doing a MindYeti© exercise. I gave each student a Post-it© note and right after our exercise I asked students to write down how they felt. Many students wrote down more than one feeling. The chart above shows the types of responses given and the number of each kind.

### Discussion

**Unchanged behaviors.** There are several contributing factors to why the interventions did not produce overwhelming positive results in their behavior. The particular personalities within my classes prohibit quick and effective change with such a short amount of intervention time. The rift that exists between students was so deep that it is unclear if any type of intervention would have change their negative interactions with each other. The students involved in the classroom arguments during the intervention period had been enduring changes and challenges at home. For improved behavior to be realized, interventions at home might have been necessary.

Another factor that may have contributed to the continued disruptive behavior during direct instruction could have been the constant irregularities in the schedule. The two days that I was delayed in getting to school on time caused an unwelcome change to our schedule and routine. The standardized testing disrupted our routine and gave students a bit of anxiety causing more disruptive behavior.

**Positive outcomes.** The data does show that students learned stress reduction strategies. Their own feedback indicates that they learned the benefits of mindfulness and how to practice it. Even if behavior during the observation period did not reflect a positive change in behavior, students indicated a new understanding that could yield positive behavior changes in the future. This result is congruent with outcomes in the Leland study whereby students reported an increase in ability to self-regulate as well as improved relationships with their peers (2015).

Because I was in a heightened mode of awareness in observing my students during the intervention time, I was able to notice something about one of my more disruptive students. During our meditation exercises he struggled to be still. After the exercises, during instruction,

he interrupted so much that I had to ask him to leave the room so that I could effectively teach the lesson to the rest of the class. Upon his return to the classroom we had a conversation that indicated to me that his behavior was beyond his control. He was intensely frustrated with his own lack of self control and the negative consequences he regularly faces because of it. This conversation made me realize that perhaps he had an underlying cause for his behavior and it was not volitional as previously presumed by my partner teacher and me. This prompted me to have a conversation with his mother about my concerns and suggested that perhaps his pediatrician could determine if there was, in fact, a physiological reason for his lack of focus and impulse control. She decided to take him to the doctor. The ADHD questionnaires completed by his parents, my partner teacher, and me revealed that he suffers from ADHD. With this diagnosis, this student will possibly receive the medical intervention that he needs to experience positive relationships with his peers, improved academic achievement, and improved relationships with his teachers who, up to this point, have been exceedingly frustrated with him.

The interview process revealed interesting information about my students and how they communicate. Most of the interviewees were unable to answer the question about how they practice self-control because they did not know what self-control was. This caused me to reflect on the assumptions I make as a teacher and my word choice. It helped me to see that students will not always stop you to ask what is meant by a certain phrase or word. They will not always self-advocate for more time to think. The interview process helped me to improve my wait times during instruction as well as helped me to be more mindful of my word choice. I learned that it is important to check-in more frequently with my students to see if they understand the words I'm using even if they seem self-explanatory.

### **Conclusion**

The results of this study indicate that there is a benefit to using mindfulness exercises throughout the school day. My students enjoyed and came to rely on our MindYeti© breaks. The interview results indicate that students learned a lot about mindfulness, strategies for self-regulation, and positive peer interactions. I will be using mindfulness exercises along with the normal movement breaks I give my students with all of my future classes.

The interview process revealed to me that I should conduct similar interviews with each new class of students that I get. The interview process taught me a lot about how my students think. It revealed to me more about their personalities than did our daily interactions with each other from the first through third quarter of the school year. Starting the school year with these kinds of one-on-one conversations can inform me of what student needs might be. This knowledge can help me teach to their learning style and can help in handling classroom behaviors more effectively. I found the interview process to be so eye-opening that I would recommend this strategy for the beginning of the year to any teacher.

I believe that given a longer time to conduct interventions, I would begin to see more stark differences in student behavior. This short timeframe was enough to plant valuable seeds and get my students really thinking about their behavior and strategies. They had time to practice how to be mindful but more time is needed for students to expand on what they have learned. I expect that with the new understanding of what mindfulness is and how to apply it, my students will implement, on their own, the strategies they have learned in other contexts to calm down or help them to focus.

Some questions I am left with after conducting this study are:

- How can I modify mindfulness exercises to accommodate students with ADHD?
- Would short yoga breaks be an effective movement and mindfulness exercise to incorporate into my classroom schedule?
- What other kinds of interview questions might be helpful in gaining the clearest understanding of my students and their needs?

Overall, this study helped to inform my practice in more areas than just one. It showed me that mindfulness exercises benefit my students' social and emotional development. I learned the importance of a more intensive means of getting to know my students at the beginning of the year. I will still use the standard first-day-of-school writing activity where students describe themselves and what they did during the summer. But, while students are working on that one form of communication, I will be conducting interviews with each student to get beyond "What's your favorite color?" and "What did you do this summer?"

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## **Appendix A**

### Pre-Observation Interview Questions

- 1) How do you show self control?
- 2) How do you calm yourself down when you are stressed?
- 4) What do you think mindfulness means?
- 5) What do you do when you are in a disagreement with someone?

## **Appendix B**

### Post-Observation Interview Questions

- 1) How do you show self control?
- 2) How do you calm yourself down when you are stressed?
- 4) What do you think mindfulness means?
- 5) What do you do when you are in a disagreement with someone?
- 6) What (if anything) did you learn about mindfulness?