

UNIVERSITY OF WISCONSIN-LA CROSSE

Graduate Studies

MINDFUL READING

Thesis Submitted in Partial Fulfillment  
of the Requirements for the degree of MEd 1316 Reading Teacher

Ashley N. Poehnelt

University of Wisconsin  
Institute for Professional Studies in Education  
School of Education

December, 2018

MINDFUL READING

By Ashley N. Poehnelt

We recommend acceptance of this thesis in partial fulfillment of the candidate's requirements for the degree of 1316 Reading Teacher.

The candidate has completed the oral defense of the thesis.

Gary L. Willhite 28 Nov 2018  
Gary L. Willhite, Ph. D. Date  
Thesis Committee Chairperson

Patricia A. Markos 11-28-18  
Pat Markos, Ph. D. Date  
Thesis Committee Member

William Gillespie 11-28-18  
William Gillespie, Ph.D. Date  
Thesis Committee Member

Thesis accepted

Meredith Thomsen 2-20-2019  
Meredith Thomsen, Ph.D. Date  
Graduate Studies Director

## ABSTRACT

Poehnelt, A.N. Mindful reading. MS in Education, December 2018, 49pp. (G. Willhite)

According to recent research, an increasing number of elementary students are experiencing stress and anxiety both inside and outside of the classroom. This study focused on the effects of proactively managing stress and anxiety levels by incorporating an effective coping strategy into the classroom known as Mindfulness. Mindfulness, by definition, helps students to be more present. More specifically this strategy was used during reading to boost focus, engagement, and assessment scores. This research study aimed to answer the question, “Can mindfulness improve focus and concentration enough to increase reading assessment scores?” This study utilized The Garfield Reading Survey, STAR Reading assessment scores, STAR Literacy assessment scores, running records, and The Zones of Regulation to track student achievement. The Garfield Reading Survey helped track student feelings towards reading as they went through this process. The daily Zones of Regulation sheets helped track student feelings by helping students identify how they feel before and after mindfulness took place. STAR testing is a formal test used to assess student progress in reading. More specifically, this test will track overall reading comprehension and basic early literacy skills. Running records documented student reading levels. Not only was reading achievement tracked, but so was student thought and feelings on the subject.

TABLE OF CONTENTS

PAGE

LIST OF TABLES.....vi

LIST OF FIGURES.....vii

INTRODUCTION.....1

LITERATURE REVIEW.....4

    The Influence of Stress and Anxiety on Students.....4

    The Influence of Mindfulness on Focus and Academics.....6

    The Influence of Mindfulness on the Brain.....8

    The Influence of Mindfulness on Teachers.....8

    Looking at the Negative Side of Mindfulness.....9

METHODOLOGY.....11

    Participants.....12

    Procedures.....12

    Research Methods.....19

RESULTS.....22

Reading Assessment Results Without Mindfulness.....	23
Reading Assessment Results Utilizing Mindfulness.....	24
Reading Garfield Survey Results.....	27
Zones of Regulation Results.....	35
DISCUSSION.....	37
Limitations .....	39
Action Plan.....	40
Conclusion.....	41
REFERENCES.....	42

## LIST OF TABLES

TABLE	PAGE
1. Mindful Reading Assessment Data.....	27
2. Garfield Reading Survey Questions.....	28
3. Garfield Reading Survey Results – Student 1-6.....	30
4. Garfield Reading Survey Results – Student 7-13.....	31
5. Garfield Reading Survey Results – Student 14-22.....	32
6. Garfield Reading Survey Results.....	33

## LIST OF FIGURES

FIGURE	PAGE
1. Elementary Garfield Reading Attitude Survey Example .....	14
2. Garfield Reading Survey Before Mindfulness.....	16
3. Garfield Reading Survey with Mindfulness.....	17
4. Reading Assessment Results on Grade Level.....	23
5. Reading Assessment Results Overall Growth.....	24
6. Garfield Reading Survey Averages.....	33
7. Zones of Regulation and Mindfulness .....	34

## **CHAPTER 1**

### **INTRODUCTION**

According to recent research, an increasing number of elementary students are experiencing stress and anxiety both inside and outside of the classroom. This study focused on the effects of proactively managing stress and anxiety levels by incorporating an effective coping strategy into the classroom known as mindfulness. The Allpsych Dictionary defines mindfulness as, “a mental state achieved by focusing one's awareness on the present moment, while calmly acknowledging and accepting one's feelings, thoughts, and bodily sensations when used as a therapeutic technique” (Heffner, 2017, p. 35). Mindfulness is used to help students be more focused, attentive, and present. In other words, it allows them to be mindful. Napoli (2005) stated that, “Mindfulness is the cognitive propensity to be aware of what is happening in the moment without judgment or attachment to any particular outcome” (p. 99). Mindfulness can take form in the classroom in a variety of different ways. Throughout this study mindfulness was present in the classroom in the form of mindful deep breathing. Deep breathing includes focusing your attention solely on your breath while taking deep breaths in and slowly exhaling out. This type of deep breathing may also include turning the lights off, picturing a place that

makes you happy, and/or closing of the eyes to further reduce distractions (Nankin, 2014).

Research shows that using mindfulness techniques in the classroom can and will lead to increased assessment scores (Mrazek, 2013). According to Chiesa & Serretti (2009), using mindfulness techniques consistently is a great way to reduce, manage, and in some cases alleviate feelings of stress and anxiety. Additionally, mindfulness is a great way for students to take a break from academic pressures that are increasing in the modern classroom. Throughout this study, students were asked to participate in activities that will include reflection, meditation, thinking, and positive language. The goal of mindfulness is to calm and focus your body so you are able to take on and succeed in daily tasks (Kuypers, 2016).

This study commenced in January of 2018 and ended in May of 2018. This study utilized running records, Zones of Regulation, student surveys, the Garfield Reading Survey, and benchmark assessment scores to determine, evaluate, and analyze the effectiveness of mindfulness in the classroom to increase academic success. Students were asked to voluntarily participate in mindfulness deep breathing and activities for approximately five to ten minutes per day. This activity took place directly prior to reading instruction to make the impact on reading instruction as impactful as possible. Students were asked to not only participate in mindfulness activities, but they were asked to gauge and monitor their state of being using Zones of Regulation.

The Zones of Regulation were created by an occupational therapist and autism specialist named Leah Kuypers (Kuypers, 2016). Leah knew students were struggling with emotional regulation. The zones help students self-regulate their emotions by

identifying themselves as being in one of four concrete zones. Each zone represents a different feeling and/or emotion and are often compared to traffic signals. For example, a student identified themselves as being in the green zone when they were feeling ready to learn. The four zones in this strategy includes the green zone, yellow zone, red zone, and blue zone. Not only does this strategy help students identify how they are feeling, but it teaches them strategies that helps regulate their emotions, impulses, sensory needs, and it helps them solve conflict. The theory behind this study is that students who are monitoring their state of being will be in the best state to learn and master new academic skills. Mindfulness is a tool that not only can help students academically, but can help them on a personal level now and in their future, as well. In this study, mindfulness was used during reading to boost focus, achievement, and overall test scores. This research study, Mindful Reading, aimed to answer the question, “Can mindfulness improve focus and concentration enough to increase overall student reading assessment scores?”

## **CHAPTER 2**

### **LITERATURE REVIEW**

The articles and studies mentioned below discuss the benefits of using mindfulness in the classroom to promote academic success. More specifically, the studies used provide data that proves the academic success of students within the content area of reading after the implementation of mindfulness. The articles used were obtained from a variety of sources to gain alternative perspectives on this topic. Articles that would both prove and disprove the effectiveness of mindfulness in a variety of different areas were searched for, as well.

#### **The Influence of Stress and Anxiety on Students**

The use of mindfulness in the classroom is a result of an increasing amount of stressors found in adolescence and in the academic focused classroom. According to Bauweans and Hourcade (1992), students mature quicker and deal with more stress than in the past. Stressors that negatively influence students in the classroom include poverty, divorce, and death. Classroom stressors include testing anxiety, testing pressure, packed schedules, and an increased amount of pressure to excel in all areas. It's apparent and proven time and time again that students today deal with an increased amount of stress and anxiety. Bauweans stated that, "The challenge for educators and policy makers is to

identify situations that lead to stress as early as possible and design coping programs that will facilitate healthy development” (1992, p. 199). My question to this information was, “How are these added stressors negatively influencing students or are students able to cope with them well?” An article I read by Jalanago and Hisch (2010), stated that emotion is the greatest influence on student performance.

As you can imagine, this influence is not a positive one. Students who are in an emotional state are not focused on academics and are distracted by what is happening outside of the classroom rather than what’s taking place inside of it. Students are not able to focus on what is taking place in the present. For example, a student arrives at school distracted by the loss their soccer team suffered the night before. The student identifies themselves as being irritated and distracted. The Zones of Regulation would identify the feelings mentioned before as ones found in the yellow zone. At this point in time, the teacher leads the student in mindful breathing, which includes a deep inhale and a slow exhale. The student may also be instructed to close their eyes and/or picture a place that makes them happy to further reduce distractions. The student will do this until they no longer feel irritated and can focus on reading instruction. According to Jones, Greenberg, & Crowley (2015), students who participate in mindfulness show improved cognitive abilities, social emotional skills, and overall well-being. “We found statistically significant associations between measured social-emotional skills in kindergarten and key young adult outcomes across multiple domains of education, employment, criminal activity, substance use, and mental health,” (Jones et al., 2015, p.2286).

Articles that focused on what affect mindfulness could have on students who took part in these types of activities on a regular and consistent basis were searched for, as

well. Could mindfulness activities improve focus, attention, and therefore positively affect testing scores? Could mindfulness activities prove to help students with working memory and help them remain in a calm state? If yes, that could in fact positively influence test scores or more specifically reading assessment scores. According to Tarantino (2017), students who took part in mindfulness activities showed an eighteen percent increase in overall attention, which includes vulnerable students. Vulnerable students was defined as those who deal with stressors outside of the classroom that negatively affected their overall performance inside the classroom (Crevenna, 2016). Napoli, Krech, & Holley (2005) noted that mindfulness helped decrease test anxiety in students between ages six and nine. Not only can mindfulness improve focus, but it can help with self-control, participation, respect, and caring for other students (Black, Fernando, & Child Fam Stud, 2014). Recent research shows that mindfulness improved attention and promoted better performance on objective tasks, which helped students focus and get the most out of school and life. These are coping mechanisms that they can use now and in adulthood, which are skills everyone needs to live a happy and productive life (Chiesa & Serretti, 2016). Mindfulness can improve focus, emotional regulation, and engagement when used in a natural setting with healthy students.

### **The Influence of Mindfulness on Focus and Academics**

Does increased focus automatically mean increased testing scores? If children are more focused on the task at hand will they in fact perform better academically? “Participating in mindfulness allows students to take a break from academics and return refreshed and ready to go,” (Van de Weiver Bergsma et al, 2014, p. 243). One study had participants do mindfulness for ten minutes per day and those ten minutes improved

academic success and overall success in the classroom. In those ten minutes students were able to take a mental break and refocus their minds, and as a result, reading and science test scores were improved (Bakosh, 2016). Teachers in another study showed an improvement in their own stress management, therefore making them better teachers for their students. These students joined their teachers in mindfulness activities and showed an eleven percent gain in academics, as proven from their formal assessments (Nankin, 2014). It seemed as though articles supporting the increase in elementary student academic scores were scarce, but there were many that showed an increase in testing scores at the higher grade levels. According to Mzarek (2013), college students who do mindfulness improve their working memory. Not only that, but students who did mindfulness improved their GRE scores by an average of sixteen points. “This finding demonstrates that, relative to nutrition training, which did not cause changes in performance or mind wandering, the mindfulness training led to an enhancement of performance that was mediated by reduced mind wandering among participants who had been prone to mind wandering at pretesting” (Mzarek, 2013, p.6).

As stated above, mindfulness can have a profound impact on overall focus, mental health, and reading assessment scores. Several research studies show that when utilizing mindfulness students will feel less stressed if they are in a healthy state (Chiesa & Serretti, 2016). Research states and proves that mindful deep breathing affects student’s bodies and brains, as well. For example, student blood pressure and heart rate decreased. Additionally, 8 to 20% of adolescents experience depression. Mindfulness has shown to decrease depression in young students and more frequently in girls (Barnes, Davis, Murzynowski, & Treiber, 2004).

## **The Influence of Mindfulness on the Brain**

Not only does mindfulness affect stress and anxiety, but it also affects the brain in a very positive way. The amygdala is the part of the brain that regulates fear and/or negative emotions. This area of the brain becomes aroused when reacting to these negative emotions (Lutz, Slagter, Dunne, & Davidson, 2008). After mindfulness takes place this part of the brain is less activated and shows less gray matter (Holze, 2018). Goldin & Gross (2010) prove that the hippocampus becomes more activated after mindfulness deep breathing, which is the part of the part of the brain critical for learning and memory. This part of the brain also helps regulate the amygdala (Holzel, 2011). The prefrontal cortex is another important part of the brain that helps a person regulate emotions and behaviors that deal with making appropriate decisions. According to Chiesa & Serretti (2010), this part of the the brain becomes activated after utilizing mindfulness strategies.

## **The Influence of Mindfulness on Teachers**

A lot of these studies show and discuss the benefits of using mindfulness with students, but does using mindfulness in the classroom positively influence teachers, as well? Research found that teachers who use mindfulness with their students on a consistent basis benefit from reduced stress and burnout. Less stressed out teachers are ones that are able to best teach students all subjects, including reading (Flook, Goldber, Pinger, Bonus, & Davidson, 2013). Teachers are more efficient and more organized than those that don't use mindfulness in the classroom (Jennings, 2015). This same author also found that teachers are more emotionally supportive, more satisfied with their jobs,

overall they connect better with students. So, not only does mindfulness help students improve in the classroom, but it benefits teachers, too.

Mindfulness is a tool that allows students and teachers alike to focus and take a mental break from reality. Mindfulness allows people to be present in the here and now, which is something that has become increasingly difficult for adults and students alike. Teaching educators to use mindfulness in the classroom helps them create a positive classroom environment for themselves and for their students. Mindfulness increases focus, positive behavior, and academic performance as proven from the research studies mentioned above (Lopez, 2016).

### **Looking at the Negative Side of Mindfulness**

The studies mentioned reference the positive effects mindfulness can have in the classroom when used on a consistent basis. However, with any new strategy used in the classroom research is limited and in this case seemingly one sided. 99% of the research utilized and read in preparation for this study boasted about the benefits of using mindfulness in the classroom to increase focus and assessment scores. When research stating the opposite was searched very little was found. According to Wilson and Mickes (2015), participants in a mindfulness study showed inaccuracy in tasks, unreliable memories, and showed no increase in word recognition. In this particular study students were asked to read a set of flashcards that contained one word on each. After this activity took place students were asked to take part in a mindfulness deep breathing activity and were then shown the flashcards again. Unfortunately, as stated before, participants showed little to no increase in word recognition after mindfulness took place. However, the study did state that this strategy is too new, research groups are small, the studies lack

follow up, and these types of cases are less scientifically rigorous than other studies (Wilson and Mickes, 2015).

Another study stated that mindfulness was the top trend in 2014 (Cebeolla, demarzo, Martins, Soler, & Garcia, 2017). This study also found that the research shows that mindfulness is a great tool that can be used in a variety of different settings. However, like the study referenced above, this topic is new and research studies that focus on this topic lack data over an extended period of time. Not only that, but it was found that participants in these types of studies are not very diverse, which means the studies only represent a small portion of the population. These types of studies needs to be more balanced, more research needs to take place, and the research participants need to represents a more diverse population (Cebolla, Demarzo, Martins, Soler, & Garcia, 2017). While researching this topic it was clear that mindfulness has a very positive impact on students, but it was also clear that more research needs to take place.

## **CHAPTER 3**

### **METHODOLOGY**

Reading is a complex skill that helps students be successful both in and out of the classroom. Reading to me has always been a huge passion and is one I enjoy sharing with my students. As an educator, I have always had students reading above, at, and below grade level and have used differentiated instruction to meet the needs of individual students. Students have difficulties in reading for a variety of reasons, which means how you help students move forward takes place in a variety of different ways. As a teacher, I have had several students not make appropriate growth in reading because of anxiety and the inability to focus. As an educator, I knew this was something that needed to be addressed. If students were too anxious about events taking place outside of school they surely would be unable to focus on events taking place at school. Students who were not making progress in reading would fall behind, which affected their entire day as a student.

Mindfulness was first introduced to me by a school social worker who was working with me and two students. These students suffered from severe anxiety and were not able to independently decrease their anxiety. I saw mindfulness as a tool that could be used to not only help my students self-regulate, but I saw it as a tool that would help them

be successful academically, as well. Reading is a student's key to success and I saw mindfulness as a way to help certain students find that success.

### **Participants**

This academic research study commenced in January of 2018 and came to an end in May of 2018. This study was conducted in a second grade classroom that held twenty-two students. Students who are in second grade range from between six and seven years of age. Twenty out of the twenty-two students participated in this study, which aimed to analyze the effects of mindfulness on reading achievement scores. Two students did not participate in this study due to scheduling and IEP conflicts. One half of the students in this classroom were ELL students who spoke Spanish as a first language. Ten students were Hispanic, two students were Hmong, and the remainder of the class was of Caucasian descent. Two-thirds of this classroom received free and reduced lunch and some lived in severe poverty. When we look at this class from a behavior perspective, we can see the class in another light. Five students in this classroom held an IEP and four of those students held a individual behavior plan. Six students in this classroom were diagnosed with severe ADHD and two students were labeled with EBD, as well. Additionally, six of these students received reading intervention, which took place daily for thirty minutes. As you can see,

### **Procedures**

Mindful Reading commenced with principal approval, which was followed by parent permission forms, student instruction, surveys, and tracking of reading assessments. The steps in this process are described in more detail below. Before this research study could start I needed to first explain the process and thought behind it to my

elementary school principal. This was a very important step because without approval I could not move forward. My principal was eager to learn about this process and was excited for me to get started. Next, I needed to obtain voluntary consent from the parents and/or guardians of the students in my classroom. This process was lengthy, as it took to get all of the consent forms returned, but was necessary in completely informing parents on every component of this process. The documents sent home for parent review gave them information on what this process would look like, why it was being done, when it would take place, where it would happen, and it also gave them a visual of what it would look like for their students.

In January of 2018, Mindful Reading officially began. Beginning this process consisted of conducting Fountas and Pinnell running records, STAR reading assessments, and STAR early literacy assessments, as well. These assessments were done to gain a baseline of where our class was as a whole and where individual students were in regards to their reading achievement. After these assessments were completed Garfield Reading Surveys were given to each and every student and completed promptly. Completing these was done as an entire class where I read each question and gave students enough time to reflect and answer each question for themselves. These questions were read to students to make sure that a lack of reading ability was not hindering student understanding of what was being asked. Approximately fifty percent of my classroom speaks Spanish as their first language, so reading to students in these types of situations is most beneficial. Students also benefit from the visual aids of Garfield showing the four different emotions or feelings towards reading. Garfield Reading Surveys aim to measure a student's overall reading attitude toward both recreational and academic reading. After a student completes

the survey it scores them using a scale of one to four points. This survey asks students to reflect on things such as, “How do you feel about reading in class?”, “How do you feel about reading out loud?” These series of questions allowed students time to reflect on their true feelings and thoughts on reading. An example of part of this survey can be found in Figure 1.

**Elementary Reading Attitude Survey**

School \_\_\_\_\_ Grade \_\_\_\_\_ Name \_\_\_\_\_

Please circle the picture that describes how you feel when you read a book.

1.	How do you feel when you read a book on a rainy Saturday?			
				
2.	How do you feel when you read a book in school during free time?			
				
3.	How do you feel about reading for fun at home?			
				
4.	How do you feel about getting a book for a present?			
				

Figure 1. Elementary Garfield Reading Attitude Survey Example

The thought behind this study was that if we can calm and focus students they will be able to retain knowledge better and therefore their overall reading assessment scores will increase. The overall success of this study was based on reading assessment

data, but I also wanted to track student feelings on reading and how they felt each day before starting reading. Doing this would allow me insight into if students truly felt calmer and ready for reading after participating in mindfulness techniques. This was done through the use of Zones of Regulation. The Zones of Regulation aim to help students regulate their bodies and their emotions (Kuypers, 2016). Students identify themselves as being in one of four zones and then do strategies, such as mindfulness, to get themselves into a zone where they can focus and concentrate on reading. In other words, this strategy is similar to mindfulness in that it helps students be in the present (Kuypers, 2016). Visuals displaying the Zones of Regulation were seen on the classroom walls and on the Zones of Regulation tracking sheets. After students had a strong understanding of the Zones of Regulation we were ready to start. Students then identified themselves as being in one of the four zones prior to participating in reading instruction. Examples of the sheets used during this process can be found in Figure 2 and Figure 3.

**Reading Readiness Survey 1**  
**Week of \_\_\_\_\_ / \_\_\_\_\_**

How do you feel right now? Are you ready to read? Circle one of the zones below.

**1. Monday**

			
Blue Zone	Green Zone	Yellow Zone	Red Zone

**2. Tuesday**

			
Blue Zone	Green Zone	Yellow Zone	Red Zone

**3. Wednesday**

			
Blue Zone	Green Zone	Yellow Zone	Red Zone

**4. Thursday**

			
Blue Zone	Green Zone	Yellow Zone	Red Zone

**5. Friday**

			
Blue Zone	Green Zone	Yellow Zone	Red Zone

Figure 2. Garfield Reading Survey Before Mindfulness

name \_\_\_\_\_ Date \_\_\_\_\_ # \_\_\_\_\_

## Reading Readiness Survey 2

Week of \_\_\_\_\_ / \_\_\_\_\_

How do you feel? Are you ready to read? Circle one of the zones both before and after your using a Mindfulness breathing technique.

### 1. Monday

 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>Before</b>			
 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>After</b>			

### 2. Tuesday

 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>Before</b>			
 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>After</b>			

### 3. Wednesday

 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>Before</b>			
 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>After</b>			

### 4. Thursday

 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>Before</b>			
 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>After</b>			

### 5. Friday

 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>Before</b>			
 Blue Zone	 Green Zone	 Yellow Zone	 Red Zone
<b>After</b>			

Figure 3. Garfield Reading Survey with Mindfulness

January through March was the first part of the research study and the second part ran from March through May of 2018. Part one of this study served to gain a baseline of data that would be compared to the data obtained when mindfulness was consistently in use. Part one ended in March, which meant administering Fountas and Pinnell running records, STAR reading assessments, and STAR early literacy assessments again. Additionally, another Garfield Reading Survey was administered, as well. After this survey and assessments were completed I was able to track this data and would compare it to student scores obtained in May.

Part two of this study started in March and began with instruction on what mindfulness is and why it is was going to be used in the classroom. Not only that, but students were shown videos on other people doing mindful deep breathing exercises after I modeled it for them. After students obtained a strong understanding of why we were going to use mindfulness in the classroom we were ready to begin the most crucial part of the study. Mindfulness took place in the classroom in the form of deep breathing, which is one of the simplest forms of mindfulness that can be used both inside and outside of the classroom. Reading started at approximately 8:45 am, so mindfulness started at about 8:40 am. This took more time in the beginning weeks, but only took about five minutes once our routine was established. First, students rated themselves on a Zones of Regulation Scale just as they did in part one of the study. The only difference this time was that students would not only rate themselves once, but they would do it twice. Before Mindfulness and reading instruction took place students rated themselves on their Zones of Regulation sheets. Next, the class participated in deep breathing, and then rated themselves again with the goal being that they stayed in the Green Zone or went down to

at least the yellow zone. Being in the green and yellow zones meant that they were ready for instruction, ready to learn, and ready to read.

The process explained above was quick and took place during the entire time part two of this study ran. Ending part two of the study was done very similarly to how part one ended. Students were asked to once again complete a Garfield Reading Survey, partook in Fountas and Pinnell running records, and took both the STAR Reading and STAR early literacy assessments. After all of these items were completed they were documented, graphed, and compared to the data from previous months. This study looked at how mindfulness can increase student focus and concentration to increase reading achievement scores. The data obtained and tracked from the entire duration of the research study would then be analyzed to determine if the research study was successful.

### **Research Methods**

Specific reading assessments and tools were used during this research study. These tools included STAR Reading assessments, STAR Early Literacy assessments, Fountas and Pinnell running records, Garfield Reading Surveys, and Zones of Regulation tracking sheets. Fountas and Pinnell running records assess reading comprehension, reading fluency, and word-recognition. During these tests students read while the educator listens and takes notes. Once the book or passage is completed students are asked a series of comprehension questions to test their understanding of what they read. These answers combined with notes and observations allow the teacher to place the student at a current reading level. This information tracks reading progress, highlights areas of improvement, and tells whether or not they are reading on, below, or above grade level. For example, a student in second grade should be reading at about a level K in the

fall, L in the spring, and an M when they leave for third grade. Using Fountas and Pinnell running records was one way to accurately find the reading level of each student.

Additionally, STAR assessments were given in reading and early literacy. These assessments were used as a formal assessment that is also adaptive. These STAR assessments are computerized tests that take about 20 minutes to complete. These are done quarterly to monitor student progress or lack thereof. The STAR early literacy assessment tests foundational phonics and vocabulary skills. The STAR reading assessment checks student reading comprehension using a variety of passages and short stories. These assessments are used in my district to formally track student progress and was one more look into each student as a reader.

The formal assessments listed above were used to track academic progress and the ones listed below were used for a different reason. The Garfield Reading survey and The Zones of Regulation tracking sheets were used to track student feelings. These informal assessments tracked how students felt about reading and how they felt before and after participating in mindfulness. The four zones used in the emotional regulation strategy, The Zones of Regulation, include the green zone, red zone, yellow zone, and blue zone. The green zone is the ideal zone where students are ready to learn, yellow means students are feeling irritated, red means they identify as being angry, and blue means they are sad. Of course, these zones can't be summed up that quickly, but in general those are how the zones were described to students with visuals from the movie *Inside Out*. *Inside Out* is a movie that follows the emotions of Riley, an eleven year old, who is moving. Riley is guided through this move by several friends that represent the feelings of sadness, happiness, irritation, and anger. These four feelings and four friends are used as visual

aids throughout this process. As stated before, this emotional regulation strategy was used to document how mindfulness is affecting students from their point of view. This data was used to help me determine how mindfulness was affecting students emotionally, as well as academically. One other way I tracked students was through the use of the Garfield Reading Survey. This survey allowed me insight into how students felt about reading from both a recreational and emotional standpoint

## **CHAPTER 4**

### **RESULTS**

#### **Reading Assessment Results without Mindfulness**

Analyzing the data obtained from this research study was critical in determining the effectiveness of the overall study. This data helped determine if mindfulness truly helped students focus on reading and therefore increase their reading assessment scores. The success of this study was determined by looking more closely at student Garfield Reading Surveys, STAR Reading assessment, STAR Early Literacy assessments, and Fountas and Pinnell Running Records. Figure 4 clearly displays the data from reading assessments taken in January, March, and May of 2018. Data is shown in Table 4 based on the percentage of students that were on or above grade level. Additionally, the chart shows the percentage of students that showed growth, which is important because a student who may not be on grade level still may make significant growth and progress.

In January, 40% of students were on grade level as compared to 45% in March on the STAR Reading Assessment. With no deep breathing exercises taking place students showed an increase in achievement of about 5%. The STAR Early Literacy Assessment showed a huge increase from 40% of students being on grade level to 70%, which is a

30% increase. Second grade is the last year STAR Early Literacy Assessments are done as an entire class. Students are expected to pass this assessment by scoring an 800 or above by the end of the academic school year. Students who score less than 800 will continue to take that assessment and will most likely receive an intervention until that benchmark is reached.

Fountas and Pinnell running records showed that 15 students were reading at or above grade level in January and that number didn't change in March. During this time 70% of students showed positive growth, which was significant based on the statistical analysis of the data. Charts displaying this data can be found below in Figure 4 and 5.

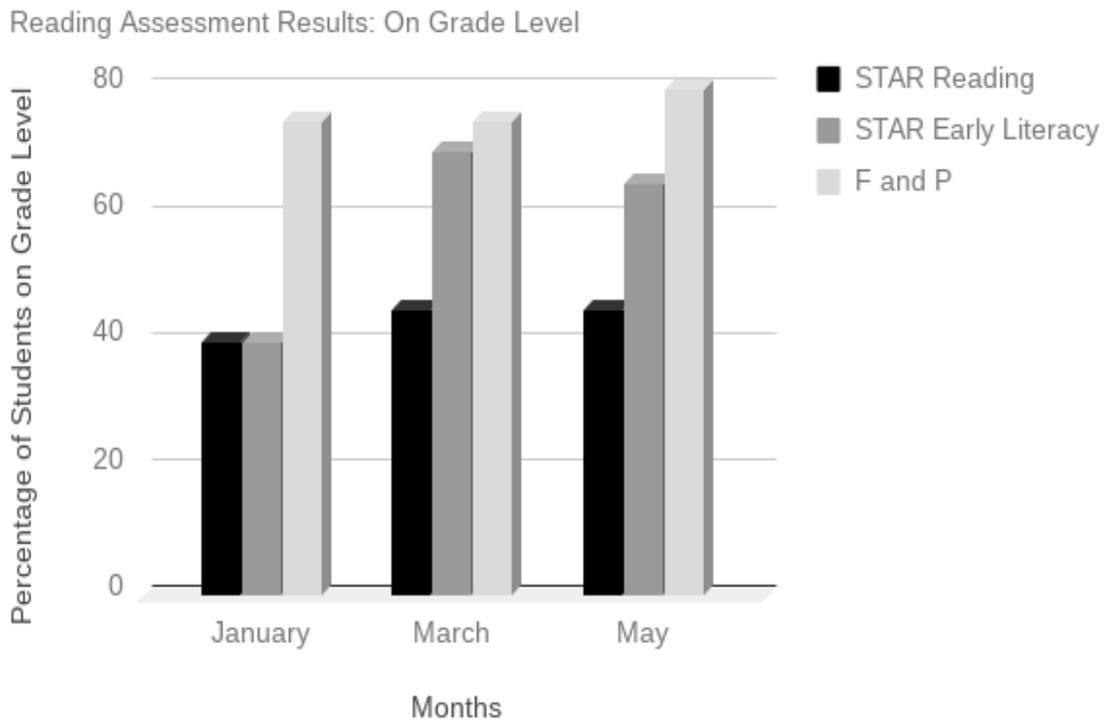


Figure 4. Readings Assessment Results on Grade Level

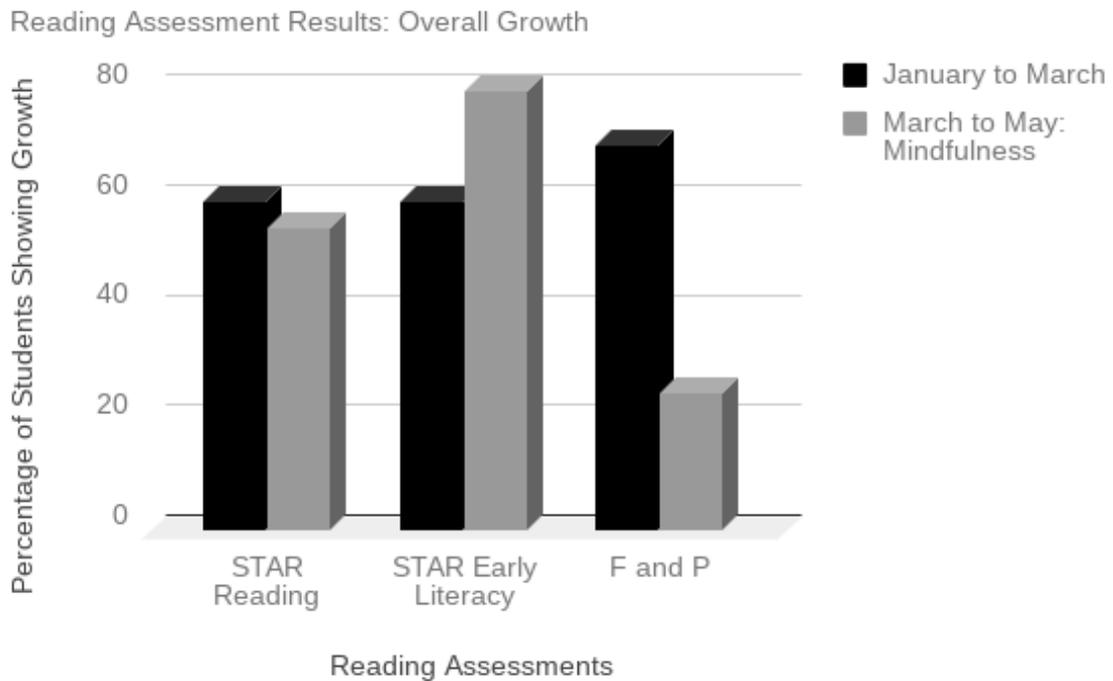


Figure 5. Reading Assessment Results Overall Growth

### Reading Assessment Results Utilizing Mindfulness

In March, mindfulness breathing techniques commenced. When you look closely at the chart provided you will notice that the STAR Reading assessment scores showed no increase with the use of Mindfulness. Forty-five percent of students in both March and May were on grade level according to this specific assessment. Growth data shows that when mindfulness was present 55% of the class made growth compared to 60% when mindfulness was not present. So, the results from the STAR Reading assessment do not show an increase in growth when mindfulness was present in the classroom.

STAR Early Literacy showed that when mindfulness strategies were being utilized one less student was on grade level. Sixty-seven percent of students were on grade level at the end of March and 62% at the end of May. To look at this another way,

14 out of 21 students were on grade level in March and only 13 were at the end of May. Running records are done in classrooms as another way to see if students are reading on grade level. As an educator, you use multiple pieces of data and observations to determine where a student stands academically and do not rely on just one. In March, 75% of students were reading at grade level and 80% of students were on grade level in May. A small increase, but an increase nonetheless. However, when we look at growth we actually see a decrease in growth by about 50%. Again, students receiving intervention did not make growth and students reading well above grade level did not make growth either. Table 1 shows all of the reading assessment data utilized throughout this study.

Table 1. Mindful Reading Assessment Data

Mindful Reading Assessment Data												
	<p><b>Key:</b>  <b>Highlighted Green:</b> At Expectation/ Grade Level  <b>Highlighted Yellow:</b> Made Growth                      * Receives <u>intervention</u> from a reading specialist</p>											
	<b>Quarter 3</b> January - March						<b>Quarter 4</b> March-May Mindfulness					
Student Name/ Number	STAR Rdg. January (>225)	STAR Rdg. March (>275)	F & P Jan. (K)	F & P March (L)	STAR Lit. Jan. (>800)	STAR Lit. March (>800)	STAR Rdg. March (>275)	STAR Rdg. May (>325)	F & P March (L)	F & P May (M)	STAR Lit. March (>800)	STAR Lit. May (>800)
*Student #1	88	91	H	I	730	819	91	84	I	I	819	805
Student #2	243	368	M	O	873	833	368	354	O	O	833	850
Student #3	351	315	J	I	831	834	315	363	I	N	834	874
Student #4	236	317	I	N	773	798	317	309	N	O	798	878
Student #5	281	385	M	N	805	879	385	326	N	N	879	831
Student #6	336	376	M	N	785	697	376	379	N	N	697	877
Student #7	410	275	M	N	828	807	275	390	N	N	807	833
Student #8	357	329	T	T	820	801	329	330	T	T	801	791
*Student #9	---	---	---	---	---	---	---	---	---	---	---	---
Student #10	179	206	I	M	613	738	206	147	M	M	738	736

Table 1. Mindful Reading Assessment Data (Con't)

Student #11	224	228	M	O	794	820	228	292	O	O	820	809
Student #12	148	225	K	K	784	820	225	219	K	M	820	795
*Student #13	106	80	H	G	765	714	80	74	G	H	714	762
Student #14	313	364	M	O	811	853	364	289	O	O	853	864
Student #15	243	258	L	L	779	804	258	339	L	L	804	828
Student #16	311	284	N	O	865	861	284	391	O	O	861	868
*Student #17	67	83	I	J	756	743	83	79	J	J	743	771
*Student #18	215	181	J	J	776	765	181	166	J	J	765	781
Student #19	215	202	M	M	842	867	202	311	M	M	867	859
*Student #20	---	---	---	---	---	---	---	---	---	---	---	---
Student #21	361	265	M	N	603	858	265	392	N	N	858	792
Student #22	272	386	N	P	745	867	386	263	P	P	867	873
	STAR Rdg. January	STAR Rdg. March	F & P Jan. (K)	F & P March (L)	STAR Lit. Jan. (>800)	STAR Lit. March (>800)	STAR Rdg. March	STAR Rdg. May	F & P March (L)	F & P May (M)	STAR Lit. March (>800)	STAR Lit. May (>800)
Totals	OL: 8/20 40%	OL: 9/20 45%	OL: 15/20 75%	OL: 15/20 75%	OL: 8/20 40%	OL: 14/20 70%	OL: 9/20 45%	OL: 9/20 45%	OL: 15/20 75%	OL: 16/20 80%	OL: 14/20 70%	OL: 13/20 65%
Key:	OL=On Level G=Growth											

### Reading Garfield Survey Results

The Reading Garfield Survey assisted in tracking student thoughts and feelings on reading inside and outside of the classroom. Student scores were out of a total of forty points in both recreational and academic, which means there were eighty points in total. Students answered a variety of questions about reading by circling one out of four possible Garfield pictures. Each picture represents a different emotion such as excited, content, irritated, and angry. Each Garfield picture also represents a different point value

ranging from one to four with the ideal answer being the excited Garfield that represents four points. The questions that students were asked are listed in Table 3.

Table 2. Garfield Reading Survey Questions

<b>Garfield Survey Questions</b>	
<b>Recreational Reading</b>	<b>Academic Reading</b>
1.How do you feel when you read a book on a rainy Saturday?	1.How do you feel when a teacher asks you questions about what you read?
2.How do you feel when you read a book in school during free time?	2.How do you feel about reading workbook pages and worksheets?
3. How do you feel about reading for fun at home?	3.How do you feel about reading in school?
4. How do you feel about getting a book for a present?	4.How do you feel about reading your school books?
5.How do you feel about spending free time reading a book?	5.How do you feel about learning from a book?
6. How do you feel about starting a new book?	6.How do you feel when it's time for reading class?
7. How do you feel about reading during summer vacation?	7.How do you feel about stories you read in reading class?
8.How do you feel about reading instead of playing?	8.How do you feel when you read out loud in class?
9.How do you feel about going to a bookstore?	9.How do you feel about using a dictionary?
10.How do you feel about reading different kinds of books?	10. How do you feel about taking a reading test?

During quarter three students completed the Garfield Reading Survey twice. Students completed the survey once at the beginning of the quarter and then again at the very end. The thought process behind including this in the research study was to gauge how students felt about academic and recreational reading. Data shows that students scored an average of 25 in recreational reading, 26.65 in academic reading, and 51.7 in total. These scores were out of 40 points or 80 points altogether. At the end of the quarter, students scored an average of 27.8 in recreational reading, 27.35 in academic reading, and a 55.15 in total.

During quarter four, students completed the Garfield Survey again when mindfulness was taking place consistently in the classroom. On average, students scored a 25.35 in recreational reading, a 27.45 in academic reading, and 53.35 in total. Unfortunately, scores did not drastically improve when mindfulness was present in the classroom. In comparison from quarter 3 and quarter 4 student recreational reading went down by 2.45 points. Academic reading increased by .10 and the average total went down by 1.8.

Table 3. Garfield Reading Survey Results – Student 1-6

Garfield Survey Results						
			Key:			
			R: Recreational			
			A: Academic			
			T: Total of Both			
	Quarter 3			Quarter 4: Mindfulness		
	1-29-2018	3-22-2018	Results	3-22-2018	5-21-2018	Results
<b>Student #1</b>						
R	19/40=48%	32/40=80%	Up 32%	32/40=80%	32/40=80%	No Change
A	16/40=40%	28/40=70%	Up 30%	28/40=70%	20/40=50%	Down 30%
T	35/80=44%	60/80=75%	Up 31%	60/80=75%	52/80=65%	Down 10%
<b>Student #2</b>						
R	12/40=30%	22/40=55%	Up 25%	22/40=55%	28/40=70%	Up 15%
A	14/40=35%	23/40=58%	Up 23%	23/40=58%	32/40=80%	Up 22%
T	26/80=33%	45/80=57%	Up 24%	45/80=57%	60/80=75%	Up 18%
<b>Student #3</b>						
R	30/40=75%	100%	Up 25%	100%	28/40=70%	Down 30%
A	34/40=85%	39/40=98%	Up 13%	39/40=98%	27/40=68%	Down 20%
T	64/80=80%	79/80=99%	Up 19%	79/80=99%	55/80=69%	Down 30%
<b>Student #4</b>						
R	19/40=48%	28/70%	Up 22%	28/40=70%	22/40=55%	Down 15%
A	18/40=45%	27/68%	Up 22%	27/40=68%	31/40=78%	Up 10%
T	37/80=47%	55/69%	Up 22%	55/80=69%	53/80=66%	Down 3%
<b>Student #5</b>						
R	10/40=25%	20/40=50%	Up 25%	20/40=50%	22/40=55%	Up 5%
A	10/40=25%	22/40=55%	Up 25%	22/40=55%	23/40=58%	Up 3%
T	20/80=25%	42/80=53%	Up 28%	42/80=53%	45/80=56%	Up 3%
<b>Student #6</b>						
R	32/40=80%	32/40=80%	No Difference	32/40=80%	32/40=80%	No Change
A	28/40=70%	30/40=75%	Up 5%	30/40=75%	32/40=80%	Up 5%
T	60/80=75%	62/80=78%	Up 3%	62/80=78%	64/80=80%	Up 2%

Table 4. Garfield Reading Survey Results – Student 7-13

<b>Student #7</b>						
R	20/40=50%	23/40=58%	Up 8%	23/40=58%	24/40=60%	Up 2%
A	23/40=58%	22/40=55%	Down 3%	22/40=55%	29/40=73%	Down 18%
T	43/80= 60%	45/80=57%	Down 3%	45/80=57%	53/80=66%	Up 9%
<b>Student #8</b>						
R	100%	100%	No Difference	100%	100%	No Change
A	100%	100%	No Difference	100%	23/40=58%	Down 42%
T	100%	100%	No Difference	100%	63/80=79%	Down 21%
<b>Student #9</b>						
R	26/40=65%	X	X	X		
A	24/40=60%	X	X	X		
T	50/80=63%	X	X	X		
<b>Student #10</b>						
R	22/40=55%	29/40=73%	Up 18%	29/40=73%	27/40=68%	Down 5%
A	26/40=65%	26/40=65%	No Difference	26/40=65%	28/40=70%	Up 5%
T	48/80=60%	55/80=69%	Up 9%	55/80=69%	55/80=69%	No Change
<b>Student #11</b>						
R	23/40=58%	21/53%	Down 5%	21/53%	25/40=63%	Up 10%
A	27/40=68%	21/53%	Down 15%	21/53%	25/40=63%	Up 10%
T	50/80=63%	42/53%	Down 10%	42/53%	50/80=63%	Up 10%
<b>Student #12</b>						
R	100%	100%	No Difference	100%	26/40=65%	Down 35%
A	100%	100%	No Difference	100%	32/40=80%	Down 20%
T	100%	100%	No Difference	100%	58/80=73%	Up 27%
<b>Student #13</b>						
R	22/40=55%	23/40=58%	Up 3%	23/40=58%	25/40=63%	Up 5%
A	26/40=65%	23/40=58%	Down 7%	23/40=58%	28/40=70%	Up 12%
T	48/80=60%	46/80=58%	Down 2%	46/80=58%	53/80=66%	Up 8%

Table 5. Garfield Reading Survey Results – Student 14-22

<b>Student #14</b>						
R	38/40=95%	25/40=63%	Down 32%	25/40=63%	23/40=58%	Down 5%
A	33/40=83%	20/40=50%	Down 33%	20/40=50%	32/40=80%	Up 30%
T	71/80=89%	45/80=57%	Down 32%	45/80=57%	55/80=69%	Up 12%
<b>Student #15</b>						
R	10/40=25%	40/100%	Up 75%	40/40=100%	36/40=90%	Down 10%
A	10/40=25%	39/98%	Up 73%	39/40=98%	30/40=75%	Down 23%
T	20/80=25%	79/99%	Up 74%	79/80=99%	66/80=83%	Down 16%
<b>Student #16</b>						
R	12/40=30%	14/40=35%	Up 5%	14/40=35%	22/40=55%	Up 20%
A	14/40=35%	17/40=43%	Up 8%	17/40=43%	28/40=70%	Up 27%
T	26/80=33%	31/80=39%	Up 6%	31/80=39%	50/80=63%	Up 25%
<b>Student #17</b>						
R	24/40=60%	37/40=92%	Up 32%	37/40=92%	17/40=43%	Down 49%
A	27/40=55%	33/40=83%	Up 28%	33/40=83%	17/40=43%	Down 40%
T	51/80=56%	70/80=88%	Up 32%	70/80=88%	34/40=43%	Down 45%
<b>Student #18</b>						
R	26/40=65%	23/40=58%	Down 3%	23/40=58%	13/40=33%	Down 25%
A	39/40=98%	25/40=63%	Down 14%	25/40=63%	22/40=55%	Down 13%
T	65/80=81%	48/80=60%	Down 21%	48/80=60%	35/80=44%	Down 16%
<b>Student #19</b>						
R	38/40=95%	22/40=55%	Down 40%	22/40=55%	18/40=45%	Down 10%
A	100%	27/40=68%	Down 32%	27/40=68%	38/40=95%	Up 27%
T	78/80=98%	49/80=61%	Down 37%	49/80=61%	56/80=70%	Down 9%
<b>Student #20</b>						
R	X	X		X		
A	X	X		X		
T	X	X		X		
<b>Student #21</b>						
R	21/40=53%	23/40=58%	Up 5%	23/40=58%	28/40=70%	Up 12%
A	20/40=50%	24/40=60%	Up 10%	24/40=60%	27/40=68%	Up 8%
T	41/80=52%	47/80=59%	Up 7%	47/80=59%	55/80=69%	Up 10%
<b>Student #22</b>						
R	17/40=43%	22/40=55%	Up 12%	22/40=55%	19/40=48%	Down 7%
A	24/40=60%	21/40=53%	Down 7%	21/40=53%	25/40=63%	Up 10%
T	41/80=52%	43/80=54%	Down 2%	43/80=54%	55/80=55%	Up 1%

Table 6. Garfield Reading Survey Results

A	24/40=60%	21/40=53%	Down 7%	21/40=53%	25/40=63%	Up 10%
T	41/80=52%	43/80=54%	Down 2%	43/80=54%	55/80=55%	Up 1%
	<b>Averages:</b>	<b>Averages:</b>	<b>Recreational:</b>	<b>Averages:</b>	<b>Averages:</b>	<b>Recreational:</b>
	R: 501/ 20= 25	R:556/20=27.8	Up: 13/20	R: 556/ 20=27.8	R: 507/20=25.35	Up: 7/20
	A: 533/ 20= 26.65	A:547/20=27.35	Down:4/20	A:547/20=27.35	A: 549/20=27.45	Down: 10/20
	T:1,034/ 20=51.7	T: 1,103/ 20=55.15	No Change: 3/20	T: 1,103/20=55.15	T: 1,067/20=53.35	No Change: 3/20
			<b>Academic:</b>			<b>Academic:</b>
			Up: 10/20			Up: 12/20
			Down: 7/20			Down: 8/20
			No Change: 3/20			No Change: 0
			<b>Totals:</b>			<b>Total:</b>
			Up: 11/20			Up: 11/20
			Down: 7/20			Down: 8/20
			No Change: 2/20			No Change: 1/20

Garfield Survey Averages

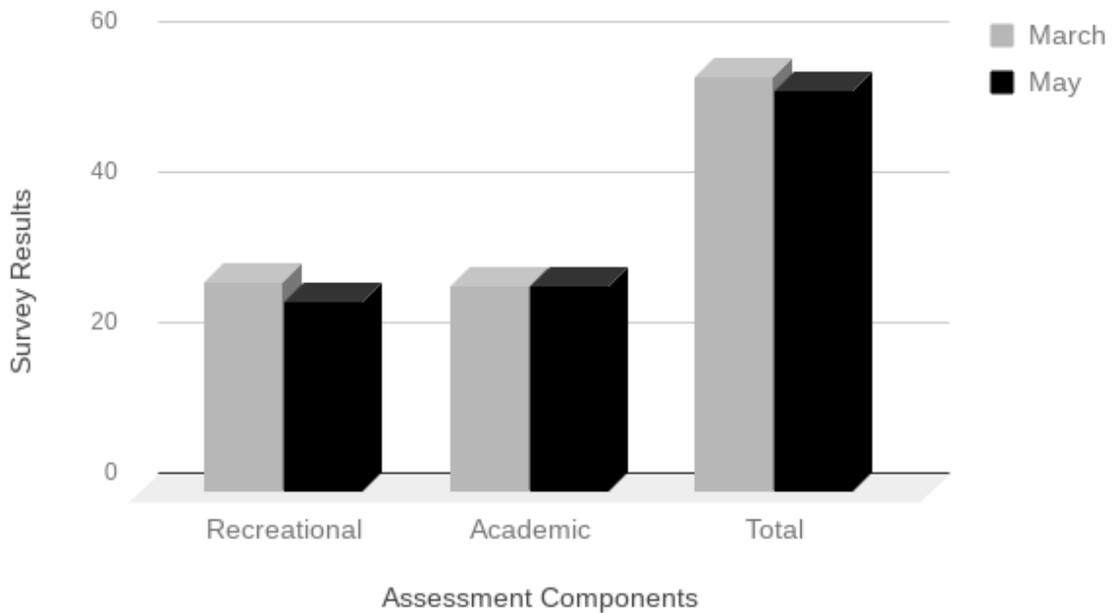


Figure 6. Garfield Reading Survey Averages

## Zones of Regulation Results

During quarter three, students identifying what zone they felt they were in took place prior to reading instruction. During quarter three student identified what zone they were in, participated in mindfulness, and then identified what zone they were in yet again. Individual student data sheets were collected weekly, tracked weekly, and then collected.

The chart below displays the weekly class averages that students identified as being blue, green, yellow, or red. Again, blue represents sadness, green meant ready to learn, yellow stood for irritated or silly, and red represents anger.

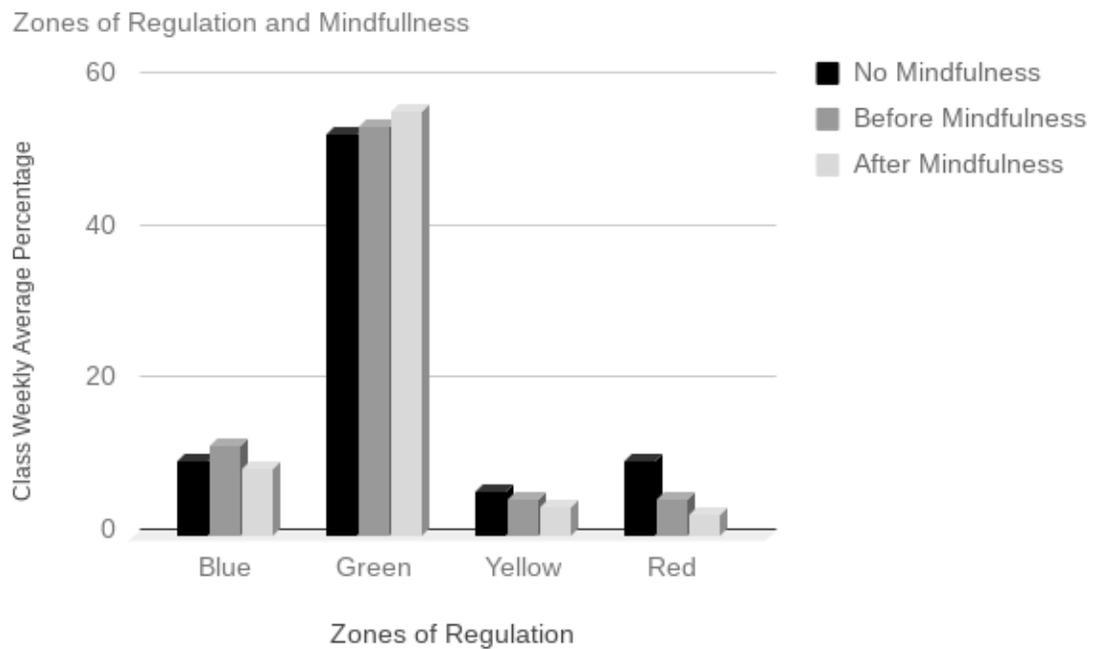


Figure 7. Zones of Regulation and Mindfulness

As a whole, the class identified themselves as being in the green zone an average of 53 times per week. At the same time, the weekly average was 10 times in the blue

zone, 6 times in the red zone, and 6 times in the yellow zone. Strategies to help students get themselves in the green zone and ready to learn were not used at this time. During quarter four, the weekly average before mindfulness was 54 times in the green zone, 12 times in the blue zone, 5 times in the yellow zone, and 5 times in the red zone. After mindfulness took place, the averages were as follows. Students identified themselves as being in the green zone 56 times weekly on average, 9 times in the red zone, 4 times in the yellow zone, and 3 times in the red zone.

When you look at the two sets of data that took place prior to mindfulness its safe to say that the numbers are pretty close. The only difference from quarter three to quarter four was that being the numbers seen from students identifying themselves in the red zone. During quarter three, students identified themselves as being in the red zone 10 times and only 5 times during quarter four. Not a huge difference, but 50% of students feeling less angry seemed too significant not to mention. Not only that, but students only identified themselves as being in the red zone 3 times. It's clear that there was a significant change when looking at the red zone specifically.

When you look at quarter four more closely you will see the following. On average, students identified themselves as being in the green zone 54 times and 56 times after mindfulness. Keep in mind that these surveys took place five minutes apart from each other. Students circled what zone they were in, participated in mindfulness, and then circled what zone they then felt they were in. Again, the goal was to get students in the green zone, which meant they were ready to learn and ready to read. So, on average two more students felt ready to learn after participating in mindfulness. After mindfulness took place students identified themselves as being in the blue zone 3 less times, 1 less

time in the yellow zone, and 1 less time in the red zone. The data on how mindfulness affected student outlook and emotional state showed a slight difference.

If we look at this through another lens, that being growth, we will see that 60% of students made growth from January to March in comparison to 80% when using mindfulness. So, when focus was on being present in the moment two more students showed growth. Would this still be the case if mindfulness wasn't present at the end of the year? As an educator, I want all students to be on grade level, however I know that is not a realistic goal for myself or for my students. Realistically, I want students to make positive progress. I noticed that my students who receive intervention made little to no progress with mindfulness vs. no mindfulness. The goal was to get as many students as possible identifying themselves as being in the green zone. However, students who were in the red zone were told their goal was to get into the yellow or green. As you can see, the most students at any point in the year identified themselves as being in the green zone, which was great to see.

## **CHAPTER 5**

### **DISCUSSION**

When mindfulness was used in the classroom it had a positive influence on academic growth and how students felt in the moment. Mindful Reading set out to see if using mindfulness in the classroom could positively affect student reading assessment scores. Part of the thought process behind this research study was that mindfulness calms and focuses students, leads to better overall assessment scores. Through the duration of this study STAR Reading assessment scores, STAR Early Literacy assessment scores, Fountas and Pinnell running records, The Garfield Reading Survey, and Zones of Regulation tracking sheets were utilized. All of this data was compiled and analyzed to see if mindfulness truly affected reading scores. If mindfulness didn't positively and significantly affect reading assessment scores did it affect students emotionally? If that was true why didn't that increased focus help increase reading assessment scores?

When looking at the number of students on grade level, STAR Reading and Early Literacy assessment data shows no significant increase in results when mindfulness was being used consistently in the classroom. These results were not satisfactory, but it lead to reflection on a few topics. First, why didn't students in general make an increase on these assessments? Secondly, why didn't mindfulness help students who were anxious,

energetic, and unfocused? I questioned myself on these items and questioned what I could have done differently with this study, and in reading instruction in general, to obtain more significant results. When looking at F and P results and the number of students on grade level only a slight increase could be seen. Overall, when mindfulness was used in the classroom the amount of students reading on grade level was not drastically increased.

Reading assessment scores were also looked at through a different lens, which was that of overall growth. The most significant results were shown in regards to the STAR Early Literacy assessment. Students showing growth increased by 20% in this area, which was great to see since early literacy skills are foundational skills students need to move forward. Unfortunately, the results of this particular study aren't groundbreaking, but I truly do believe that it helped create and foster a more positive learning environment. But if that's true, why didn't a more positive learning environment produce better assessment scores? Mindfulness seemed to help create a more positive learning environment by teaching students a skill that helped them alleviate stress and anxiety while boosting focus. Students are taught that it's okay to take a break and mindfulness helped to create a supportive environment among students and teachers alike. But, despite the positive feel of the classroom assessment scores did not drastically rise. Why? Was there not enough time and/or not enough data? A classroom that utilizes mindfulness is more focused and has students who can self-diagnose when they need to take a break and/or implement deep breathing. A mindful classroom empowers students.

Students in this study were asked to rate how they felt about both academic and recreational reading. Unfortunately, mindfulness did not increase positive feelings

regarding reading. On a more positive note, students did show that mindfulness helped some of them recenter and refocus, which was shown on the Zones of Regulation tracking sheets. Most noteworthy, was the immediate overall decrease in students identifying themselves as being in the blue and red zone. However, as stated before, the increase in positive state of minds did not lead to an overall increase in reading assessment scores.

### **Limitations**

Now that this study is complete, I can look back and identify what could have been improved to foster better results. I strongly believe that time was a huge limitation for several reasons. First, half of this study was spent obtaining a baseline and the other half was spent incorporating mindfulness into the classroom. Each half of the study was approximately three months long, which was not a lot of time. Some of that time was spent practicing new routines and learning new concepts, which took even more time away from the heart of the study. Second, we only spent five minutes per day using mindfulness in the classroom. This new technique was not used to its full potential because it was not incorporated into the entire school day. Incorporating mindfulness into the entire school day would have helped to create a more positive and focused classroom environment. Lastly, the core of this study took place between March and May. This study only tracked data from students at the end of the year, which is typically a time teachers see more unfocused and unengaged students. Lengthening this study would have allowed me to obtain more data and allow students the opportunity to become more comfortable and familiar with mindfulness.

Not only was time a limitation, but the sample size was, as well. This study only looked at the thoughts and assessment scores of twenty students who were around the same age. These students also had similar backgrounds and came from similar backgrounds. When mindfulness was introduced only one strategy was taught due to the limited time in the day and in the second half of the study. Teaching students more than one technique would have allowed student choice and may have helped to positively influence more students. Student choice is important because it gives students the opportunity to do what they feel is best for their body and their learning. As you can see, this study had several limitations that may have negatively influenced the study.

### **Action Plan**

If I was going to continue research on this topic I would do the following. First, I would significantly lengthen the study to give students more practice with deep breathing exercises. Lengthening the study would allow me the opportunity to teach students several mindfulness techniques outside of deep breathing. Teaching several mindfulness techniques would benefit students because it would allow them to pick a technique that best fitted their personality and need. Additionally, I would want to do this study on a much larger scale. Doing this study on a larger scale would mean increasing the sample size and the sample profile. It would be beneficial to do this with multiple classrooms, multiple grade levels, multiple backgrounds, and multiple districts. Increasing the sample size in this way would allow insight into how mindfulness affects a wide range of students. It's possible that different mindfulness techniques affect people differently. Lastly, mindfulness deep breathing was used once per day. If further research was done I would incorporate mindfulness into the entire day to improve the overall classroom

environment. When I researched drawbacks of mindfulness those studies showed that there needs to be bigger research groups, more research in general, more data over time, balanced research, and research that looks at varying subjects being influenced by mindfulness. (Cebolla, Demarzo, Martins, Soler, & Garcia, 2017).

### **Conclusion**

This study dealt with two things I am very passionate and interested in learning more about. Those two things are mindfulness and reading. I truly believe that these two things can positively impact a student's life academically and emotionally. This research study proved that mindfulness does impact reading growth and the emotional state of students. I went into this study looking for ways to help calm and focus students and I feel that I gave them a strategy that does just that. All though, I didn't see a huge increase in results it should be noted that using mindfulness in the classroom did change the feel of the room. As a result of this study, the classroom was left feeling more balanced and positive. Students now had a strategy to help them self-regulate, which is a skill that will only benefit them in the future. When research was being done on this topic I noticed that not a lot of studies like this have been done with elementary aged students. This study showed me that more research needs to be done with this particular age group. Having a focus on reading testing scores allowed me to create better STAR Early literacy results and the growth that was seen. As an educator, it's always exciting to try new things, but most importantly one must reflect on those activities to see if they truly benefit students.

## REFERENCES

- Bakosh, Laura S. (2016). Maximizing mindful learning: mindful awareness intervention improves elementary school students' quarterly grades. *Mindfulness*, 7,59-67. Retrieved from <https://link.springer.com/article/10.1007/s12671-015-0387-6>.
- Barnes, V. A., Davis, H. C., Murzynowski, J. B., & Treiber, F. A. (2004). Impact of meditation on resting and ambulatory blood pressure and heart rate in youth. *Psychosomatic Medicine*, 66(6), 909-914.
- Bauwens, J., & Hourcade, J. (1992). School-based sources of stress among elementary and secondary at-risk students. *The School Counselor*, 40(2), 97-102. Retrieved from <http://www.jstor.org/stable/23901147>.
- Black, D.S. & Fernando, R. J Child Fam Stud (2014) 23: 1242. <https://doi.org/10.1007/s10826-013-9784-4>.
- Cebolla A, Demarzo M, Martins P, Soler J, Garcia-Campayo J (2017) Unwanted effects: Is there a negative side of meditation? A multicentre survey. *PLoS ONE* 12(9): e0183137. <https://doi.org/10.1371/journal.pone.0183137>
- Chiesa, A., & Serretti, A. (2010). A systematic review of neurobiological and clinical features of mindfulness meditations. *Psychological Medicine*, 40(08), 1239–1252.
- Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: a review and meta-analysis. *The Journal of Alternative and Complementary Medicine*, 15(5), 593–600.
- Crevenna, Richard. (2016). Mental techniques to improve performance. *The Central European Journal of Medicine*, 1, 1-2. Retrieved from <https://link.springer.com/article/10.1007/s00508-016-1015-8>

- Flook, L., Goldberg, S. B., Pinger, L., Bonus, K., & Davidson, R. J. (2013). Mindfulness for teachers: A pilot study to assess effects on stress, burnout, and teaching efficacy. *Mind, Brain, and Education*, 7(3), 182–195.
- Goldin, P. R., & Gross, J. J. (2010). Effects of mindfulness--based stress reduction(MBSR) on emotion regulation in social anxiety disorder. *Emotion*, 10(1), 83.
- Heffner, Dr. Christopher. (2017). AllPsych dictionary. Retrieved from <https://allpsych.com/dictionary/s/>.
- Hölzel, B. K., Carmody, J., Evans, K. C., Hoge, E. A., Dusek, J. A., Morgan, L., Lazar, S. W. (2010). Stress reduction correlates with structural changes in the amygdala. *Social Cognitive and Affective Neuroscience*, 5(1), 11–17.
- Jalanago, Mary Renck; Hirsch, Rae Ann. (2010). Understanding reading anxiety: new insights from neuroscience. *Early Childhood Education Journal*, 37, 431-435. Retrieved from <https://link.springer.com/article/101007/s10643-010-0381-5>
- Jennings, P. A., Brown, J. L., Frank, J. L., Doyle, S. L., Tanler, R., Rasheed, D., DeWeese, A., DeMauro, A., & Greenberg, M. T. (2015). Promoting teachers' social and emotional competence, well-being and classroom quality:a randomized controlled trial of the CARE for Teachers Professional Development Program. In C. Bradshaw (Ed.), *Examining the impact of school-based prevention programs on teachers: findings from three randomized trials*. Washington D.C: Symposium presented at the Society for Prevention Research Annual Meeting.
- Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2013). Improving Classroom Learning Environments by Cultivating Awareness and Resilience in Education (CARE): Results of a Randomized Controlled Trial. *School Psychology Quarterly*, 28(4), 374–390.
- Jones, D. E., Greenberg, M., & Crowley, M. (2015). Early Social--Emotional Functioning and Public Health: The Relationship Between Kindergarten Social Competence and Future Wellness. *American Journal of Public Health*, 105(11), 2283–2290.
- Kuypers, L. (2016, November). All the Zones are OK! Tips for Managing the Zones

You're In. Social Thinking. Retrieved from [https://www.socialthinking.com/Articles?name=all-the-zones-are-ok&utm\\_source=newsletter\\_nov\\_2016&utm\\_medium=email&utm\\_campaign=article\\_allthezonesareok](https://www.socialthinking.com/Articles?name=all-the-zones-are-ok&utm_source=newsletter_nov_2016&utm_medium=email&utm_campaign=article_allthezonesareok)

- Lopez, Angelica B. (2016). Yoga in an elementary school setting: the impact on self-regulation, stress management, and academic performance. *Organizational Leadership in Education*, 1, 3-55. Retrieved from <https://search.proquest.com/openview/296f3B20d69a7a2d44520b72e293dfae/1?pq-origsite=gscholar&cbl=18750&diss=y>.
- Lutz, A., Slagter, H. A., Dunne, J. D., & Davidson, R. J. (2008). Attention regulation and monitoring in meditation. *Trends in Cognitive Sciences*, 12(4), 163–169.
- Mrazek, Michael D. Brief mindfulness training may boost test scores, working memory. (2013). Association for Psychological Science. Retrieved from <http://www.psychologicalscience.org/news/releases/brief-mindfulness-training-may-boost-test-scores-working-memory.html>.
- Nankin, Ilana. (2014) Breathe for change: changing the world, one teacher at a time. University of Wisconsin: Madison. Retrieved from <https://static1.squarespace.com/static/58055917e58c62739ac1c47f/t/582e6ff9be659444ca603/1479438343986/Ilana%2BNankin.%2BDissertation%2BFinal%2B%28Formatted%29%2B%282%29%2B%281%29.pdf>
- Napoli, M., Krech, P. R., & Holley, L. C. (2005). Mindfulness Training for Elementary School Students. *Journal of Applied School Psychology*, 21(1), 99–125.
- Raes, F., Griffith, J. W., Van der Gucht, K., & Williams, J. M. G. (2014). School--based prevention and reduction of depression in adolescents: A cluster--randomized controlled trial of a mindfulness group program. *Mindfulness*, 5(5), 477–486
- Tarantino, Hadley. (2017). Mindfulness in the classroom. *Treatment Care and Wellness*. Retrieved from <http://inpathybulletin.com/mindfulness-in-the-classroom/>.
- Van de Weijer-Bergsma, E., Langenberg, G., Brandsma, R. et al. Mindfulness (2014) 5: 238. <https://doi.org/10.1007/s12671-012-0171-9>.
- Wilson, M. Brent, & Mickes, L. Laura. (2015). Increased false-memory susceptibility after mindfulness meditation. *Psychological Science*, 26(10), 1567-1573. Retrieved from <https://doi.org/10.1177.0956797615593705>.

