How Teachers are Integrating Mindfulness as Responsive Pedagogy for Students with ADHD

By

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Abstract

This Masters of Teaching Research Project is a qualitative study that addresses the topic of how mindfulness can be incorporated into the classroom by typical curriculum instructors, and the results that come from its integration. This study discusses the effects of mindfulness on the entire class population, and the average student, with special attention to students with ADHD. Although some studies have reported on mindfulness within classroom settings, most of these studies did not address the use of mindfulness as a potential form of responsive pedagogy to support students within the classroom context. This study aims to explore how this can be achieved, guided by the following question: How does a sample of elementary teachers using breathing techniques, yoga, and meditation foster mindfulness, and what outcomes were observed relative to students with ADHD? Overarching themes include the methods that instructors use to integrate mindfulness, the potential barriers that they encounter through this undertaking, as well as the range of outcomes that they observe through its incorporation. Ultimately, I believe that it is an important for a teacher to find practical and captivating methods to support each of their students as best as possible, and that is why I think mindfulness fits well into this equation. With this study, I intend to investigate the reality of integrating mindfulness into the classroom, and determine the true experiences of instructors who incorporate it into their classrooms on a regular basis.

Key words: mindfulness, responsive pedagogy, students with ADHD, elementary education
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Chapter 1: Introduction

1.0 Research Context and Problem

Over the past several years, there has been a reported increase in the number of students diagnosed with emotional disorders, such as ADHD, anxiety, and depression (Napoli, 2004). Teachers are now expected to be aware of the emotional challenges faced by their students, and are required to have the appropriate tools to support them in the educational process (Napoli, 2004). Consequences of this increased responsibility to support students with emotional and behaviour disorders are higher levels of teacher stress and dissatisfaction, and increased movement into other professions (Adera & Bullock, 2010). This increase in accountability has been a discernable challenge for many teachers, and has led to uncertainty as to what can be done to assist students in a general manner.

To facilitate the support of student mental health in Ontario schools, reference material has been made available for teachers called the Ontario Supporting Minds Handbook, introduced in 2013. This material is essentially a guide that identifies the common signs of many of the mental health problems that students may face in their early years of education. It also provides educators with several strategies to promote positive mental health within the classroom. Each mental health problem outlined in the handbook is given a distinct section, and provides specific actions a teacher may take to assist a student in managing the issue.

Attention Deficit Hyperactive Disorder (ADHD) is one of the most prevalent disorders among children today, and has been estimated to be present in approximately 4.5 million children between the ages of 4 and 17 (Grosswald et al., 2008). Children with
ADHD have difficulty maintaining attention over lengthy periods of time, find the concept of pursuing goals challenging, and struggle to inhibit spontaneous responses (Van der Oord, Bögels, & Peijnenberg, 2012). Their behaviour is impulsive, uninhibited, inattentive, and hyperactive (Van der Oord et al, 2012). For children who have ADHD, medication is not a universal cure, as many still often experience cognitive and psychosocial symptoms extensive enough to pose problems at home and in school (Grosswald et al., 2008). ADHD medication may also pose health risks to long-term users (Grosswald et al., 2008). Although there have not been many conclusive studies about these risks, evidence suggests that there is an affiliation between ADHD medication and cardiac disorders, liver damage, psychiatric episodes, and even sudden death (Grosswald et al., 2008). Many students with ADHD are therefore in need of alternative methods and strategies within the classroom to cope with this disorder.

As it is has increasingly become the responsibility of teachers to assist students within the classroom with learning disabilities such as ADHD, these teachers must find constructive ways to assist them with this responsibility. The Ontario Supporting Minds Handbook contains many strategies teachers may use to assist students with ADHD within the classroom setting. For example, the document suggests that the instructor should break down tasks into smaller units, or assign only one task at a time, to improve students’ ability to pay attention (Ontario Ministry of Education, 2013). Although the strategies provided do deliver accommodation for students with the learning disability, it is arguable that these are not exactly solutions for the problem. These approaches can be viewed as a mere metaphorical bandage for the issue, since they do not provide the student with actual tools that can be used to promote their future development. In this
regard, it is evident that these students can benefit from a means of assistance that goes beyond placing simple accommodations into their school-related activities.

To meet the challenge of supporting student needs, some teachers have introduced mindfulness as a classroom activity. Mindfulness has been shown to provide a range of cognitive, emotional, and psychological benefits for elementary and high school students (Meiklejohn et al., 2012). When taught within school settings, mindfulness has improved students’ working memory, their attention, their academic skills, their social skills, their emotional regulation, and their self-esteem (Meiklejohn et al., 2012). With mindfulness training, students have also reported improvements in mood, and decreases in general levels of anxiety, stress, and fatigue throughout their everyday lives (Meiklejohn et al., 2012). Mindfulness is therefore a skill that can be developed by students, that can be internalized and carried outside of the classroom into everyday life.

The concept of mindfulness originated in Eastern Buddhist tradition, which has become popular in the recent years in Western culture. Mindfulness is understood to be a form of awareness that is achieved through a specific way of maintaining attention. Jon Kabat-Zinn is widely known as the individual who first cultivated the concept of mindfulness in Western society. He describes mindfulness as something that occurs purposefully, captures the present moment, and does not use any form of mental judgment (Kabat-Zinn, 2011). Mindfulness is one of many forms of meditation, and it is used to regulate attention and energy, which may lead to experiencing something in a novel way (Kabat-Zinn, 2011). Mindfulness essentially allows for an individual to connect to the world, as well as humanity, through the mind and body. It is a mental
process, which provides opportunity for a person to create a comfortable relationship with his or her own mind. It can also be used for healing, as well as learning about one’s self in order to cultivate a higher state of personal well-being (Kabat-Zinn, 2011).

I define the term “mindfulness activity” as an endeavour that is enacted in the pursuit of mindfulness. The state of mindfulness is most commonly achieved through activities such as meditation or yoga. Meditation has been growing as a key resource that individuals use to cope with stress, and relieve other psychological ailments (Grosswald, Stixrud, Travis, & Bateh, 2008). There are various forms of meditation, many of which differ in the way that they are focused to relax the individual. Mindfulness meditation is known as a technique of contemplation meditation, which incorporates the concept of mindfulness into the practice. Similarly, yoga can be described as a “…systematic body of knowledge concerned with the physiological and mental processes that change the physiology of the body through respiratory manipulation (breathing techniques), postures, and cognitive control (relaxation and meditation)” (Jensen & Kenny, 2004, pg. 205). Although meditation is a key part of yoga practice, there is more of a physical aspect to it, one which essentially converts mindfulness into a form of exercise.

1.1 Purpose of Study

Much of the existing literature on mindfulness in schools does not address the potential use of mindfulness to support student mental health. There is some research that focuses on the use of mindfulness to promote self-regulation for preschool students, but this does not highlight any specific mental health issue that may affect students within the classroom (Razza, Bergen-Cico, & Raymond, 2015). There are also many cases reported where mindfulness has been used as a school-based intervention, but not
necessarily implemented by the classroom teacher (Kuyken et al., 2013; van de Weijer-Bergsma et al., 2014; Flook et al., 2010). In these cases, mindfulness specialists are brought into the school, and students are taken out of the classroom to perform the mindfulness activities. These strategies have been proven to be effective in teaching students skills such as self-regulation, executive functioning, and stress reduction, however little attention has been paid to how these strategies might impact on students who have mental health issues (Razza et al., 2015; Flook et al., 2010; van de Weijer-Bergsma et al., 2014). There have also been studies where students with a specific mental health issue have been separated from the class and taught mindfulness together as a group (Jensen & Kenny, 2004; Carboni, Roach & Fredrick, 2013). As these studies isolate students from the class and instruct them separately, there is no evidence to determine whether these mindfulness methods can be used effectively by their own teacher, within the classroom setting, to support them.

It would be important to educators to know the outcome of the use of mindfulness taught within the everyday setting where students learn. The purpose of my research is to examine how a sample of elementary teachers use mindfulness activities, such as yoga and meditation as responsive pedagogy in the classroom and to explore the impacts that it has on students with ADHD. This study was undertaken with the intention of adding to the existing body of literature concerned with the use of mindfulness practices within the classroom.

1.2 Research Questions

The main question that this research paper will address is: How can a sample of elementary teachers use breathing techniques, yoga, and meditation to foster mindfulness,
and what outcomes do they observe in students with ADHD? The subsidiary questions that guide this study include:

1. How are these teachers incorporating mindfulness practices into their classrooms?
2. What challenges do these teachers encounter when bringing mindfulness practices into the classroom and how do they respond to these challenges?
3. What range of outcomes do these teachers observe from their students, generally, and for students with ADHD in particular?

1.3 Background of the Researcher

As an individual who grew up with ADHD, I faced many challenges within the classroom. When I was in elementary school, it was difficult to find a teacher who was willing to help a student cope with the problems associated ADHD. For example, when I was in grade 3, my teacher refused to deal with my high level of energy, and would send me out of the classroom on a regular basis. I also often had trouble fitting into social communities due to my hyperactivity and my inability to sit still in social situations. Having ADHD as a child therefore, had a negative impact on my learning experiences, as well as my self-esteem when it came to making friends. In today’s schools, teachers have been given more responsibility in attending to the special needs of the individual student. Although many students today are using methods outside the classroom to combat their ADHD, the symptoms are typically carried into the classroom. It is therefore important to people like me that teachers do everything in their power to assist students with ADHD, specifically with their ability to focus their attention on the problems at hand. Several years ago I stumbled upon the concept of mindfulness through my interest in yoga. Through my training, I have learned that mindfulness can be used as a tool to
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promote increased self-growth, not only through self-awareness, but also through its ability to enhance focus. My interest in mindfulness eventually migrated towards my passion for teaching, which made me wonder how young students may benefit from its practice. After practicing mindfulness, I have become more emotionally calm, and can concentrate on school-related tasks for an extended amount of time. From my own personal experience, I thus believe that it is possible for mindfulness to provide students with ADHD the support that is needed to be successful within the classroom.

1.4 Overview

For this research paper, I conducted a qualitative study using three interviews of teachers regarding their use of mindfulness activities within the classroom, and how these activities affect students with ADHD. In chapter 2, I will present a literature review of all the studies that pertain to the use of mindfulness activities within a classroom setting. In chapter 3, I will create a research design for my study. In chapter 4, I will discuss my findings regarding my interviews, and assess their importance in the context of the existing literature. In chapter 5, I will explain how I can employ my findings in my personal teaching career, as well as suggest how they can be integrated into teaching by the rest of the teaching community. Finally, I will discuss the limitations of my findings, and suggest where I feel future research should be directed.

Chapter 2: Review of Literature

2.0 Introduction

This chapter addresses four key areas of the literature that pertains to the current research on mindfulness, and how it has been used within the education field. It begins
with a brief introduction about mindfulness, its primary focus, and how it is used within Western society. The second section addresses the uses of mindfulness inside school settings, and its known effects on students who practice it. The third section discusses the barriers that students with Attention Deficit Hyperactive Disorder (ADHD) face within the classroom. The chapter concludes by highlighting the research that has established mindfulness as an effective form of responsive pedagogy for students with learning disabilities and other mental health problems.

2.1 Meaning of Mindfulness Practice and Research to Date

The concept of mindfulness was developed over 2500 years ago within the religion of Buddhism. In recent years, mindfulness has been incorporated into Western society as a form of meditation. Two main categories of meditation have been carried over into Western culture, known as the techniques of concentration and contemplation (Kabat-Zinn, 2011). In concentration meditation, an individual maintains focus on something specific, such as an event, a sound, or an image (Grosswald et al., 2008). The aim of this exercise is to direct the attention towards a single focal point, that may be external from the body. An example of concentration meditation is Zen meditation, where one sits and concentrates on clearing the mind, or “not thinking” (Grosswald et al., 2008). The goal of contemplation meditation is to make one aware of any thoughts or sensations that may arise during its practice (Grosswald et al., 2008). These thoughts or sensations are acknowledged, but are not judged or actively engaged in by the practitioner. In the context of these two meditation techniques, mindfulness falls under the category of contemplation. Its primary focus is the practitioner’s own breathing, and when thoughts and emotions surface, the individual redirects attention back towards the
breathing. This emphasis on the breath is a simple and effective way for an individual to achieve concentration, awareness, and relaxation (Napoli, 2004). The practice of mindfulness meditation has been used clinically for its healing properties, but has also developed as a means of increasing the general well-being of its practitioners (Grosswald et al., 2008).

Meiklejohn et al. (2012) maintain that the practice of mindfulness allows for a person to become present-centered and to view events in a more objective manner. Mindfulness also strengthens a person’s capacities for being mindful of their emotions, and allows them to respond in a more neutral way to occurrences around them (Meiklejohn et al., 2012). Specifically, the practice of mindfulness meditation allows for a person to respond in a less reactive way to his or her surroundings (Kabat-Zinn, 2011). This process supports an individual’s adaptive emotional regulation, as they can become aware of, and express their emotions, as well as regulate the intensity and duration of arousal that these emotions create (Meiklejohn et al., 2012). When a person can slow down and identify the emotion that they are experiencing, it makes it easier for them to react in a more relaxed and collected way.

In their work on distinguishing mindfulness from mind-wandering, Schooler, Mrazek, Franklin, Baird, Mooneyham, Zedelius, and Broadway (2014) highlight that there is a fine line between these two concepts. Mind-wandering occurs when an individual’s cognitive resources are taken up by internal activity that is not related to the present task or environment (Schooler et al., 2014). In contrast to mindfulness, mind-wandering can interfere with the task that an individual is trying to achieve, and can additionally inhibit performance in reading, attention, and temperament (Schooler et al.,
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2014). Although Schooler et al (2014) indicate that mind-wandering can be beneficial when done at the right place and time, they insist that it is important to find a balance between mindfulness and mind-wandering. Mindfulness practitioners thus need to be wary of when their minds may wander during meditation, as the positive effects of mindfulness are not necessarily present during this activity.

There is growing numbers of publications that deal with mindfulness and the improvement of brain function. The study by Grosswald et al. (2008) has shown that the practice of mindfulness meditation increases frontal brain coherence, an area of the brain associated with increased executive functioning, improved attention, greater emotional stability, and decreased levels of anxiety. Furthermore, Napoli, Krech, & Holley (2005) have shown that the rhythmic breathing involved in mindfulness not only affects the autonomic nervous system, but also focuses the mind, and increases an individual’s level of self-awareness. Both studies provide evidence that there are correlations between mindfulness and the physical body, and that the practice of mindfulness can have positive effects on conditions associated with mental health.

The clinical application of mindfulness has also been widely researched, and ranges from its use in the treatment of physical, as well as psychological disorders. It is best recognized for its roles in the management of chronic pain, borderline personality disorder, addiction, anxiety, depression, and eating disorders (Hooker & Fodor, 2008). It is postulated that mindfulness may lead to actual cognitive change, as it can affect thought patterns and the attitude of a person’s thoughts (Hooker & Fodor, 2008). The adaptation of mindfulness into clinical settings has indeed had a very favourable impact on current medical treatment (Grosswald et al., 2008).
Two fundamental forms of clinical mindfulness therapy have been integrated into Western culture, and are both not only currently in use, but have seen expanded use over the years. These techniques are the primary basis for most forms of mindfulness therapy that exist today. Mindfulness-Based Stress Reduction (MBSR), developed by Jon Kabat-Zinn in 1979, was the first form of clinical mindfulness therapy that was created for use within Western culture. MBSR is a program that provides mindfulness training to individuals with medical illnesses, and is used as a means for self-regulation to reduce stress, through controlling emotions effectively (Bishop, 2002).

MBSR takes the concept of mindfulness and aims to teach individuals how to approach stressful situations in a “mindful” manner, which allows for them to respond in a way that does not heighten their emotional stress (Bishop, 2002). Patients are encouraged to interpret their own thoughts and feelings in a more objective way, and to not internalize them, or view them as accurate reflections of reality (Bishop, 2002). Similarly, Carmody & Baer (2008) found that MBSR has shown that there is a decline in perceived stress levels and symptomatology among clinical populations with stress-related problems, illness, anxiety, and chronic pain. The improvements appear to be related to routine implementation of mindfulness activities, and suggest that regular practice of mindfulness leads to a reduction in symptomatology and stress levels in practicing patients (Carmody & Baer, 2008). A typical MBSR program consists of 8-10 weeks of group sessions, including one full-day “retreat” where participants are fully immersed in mindfulness activities.

Another major form of clinical mindfulness-based therapy that is widely used today is Mindfulness-Based Cognitive Therapy (MBCT). The basis of MBCT is to
encourage the enhancement and acceptance of the thoughts and feelings of the participant (Sipe & Eisendrath, 2012). In the beginning, the program focuses on guided meditation, where the participant follows the breath or other bodily sensations (Sipe & Eisendrath, 2012). The final weeks of the session incorporates more cognitive therapy, which gives participants the ability to undertake independent practice, and expand their mindful awareness of mental events (Sipe & Eisendrath, 2012). This helps the participant recognize that negative thoughts are not necessarily reality-based, and that thoughts and feelings do not necessarily have to be judged for their content. MBCT has had a very positive role in assisting individuals with depression, as well as some other mental illnesses. Its major streams of use are in relapse prevention programs, treatment of active depression, resistant depression, suicide, bipolar disorder, and anxiety disorders (Sipe & Eisendrath, 2012). Like MSBR, the MBCT program typically runs 8 consecutive weeks long; however, there is no exclusive retreat that participants are encouraged to attend. Both programs promote the use of mindfulness as a lifelong skill, where the participant can expand its use into adapting to any kind of negative experience that may occur in the future.

2.2 Known Effective Practices and Outcomes of Mindfulness in Education Contexts

Recently, the practice of mindfulness has been adapted to school-based education to promote better educational experiences for students of all ages (Kuyken et al., 2013). Mindfulness has been integrated into classrooms through individual teachers learning and teaching mindfulness, and has also been set up as an intervention program by third party groups. In many intervention programs such as the Mindfulness in Schools Programme (MiSP), specific students, who may or may not have a form of learning disability, are
typically taken out of the classroom and taught mindfulness techniques (Kuyken et al., 2013). This often occurs when study groups wish to undertake research on mindfulness. Other intervention programs, which do not have a specific focus, may work with an entire class, or even a larger group than that.

According to Meiklejohn et al. (2012), there are three basic approaches that teachers may take to integrate mindfulness into the classroom. An indirect approach is one where the teacher becomes a mindfulness practitioner, and embodies its attitudes and behaviours throughout the school day (Meiklejohn et al., 2012). In this way, the teacher emits mindfulness to the students, who are exposed to mindfulness whenever they interact with the teacher. When teachers incorporate mindfulness into their personal lives, it also improves their personal well-being and prevents emotional burnout (Napoli, 2004). A second approach is the direct approach, which involves the adaption of programs and mindfulness exercises into the classroom curriculum (Meiklejohn et al., 2012). This approach allows for students to experience mindfulness first-hand, and to learn specific techniques that they can practice both in and outside of school. The final approach is a combined method that uses both indirect and direct approaches together (Meiklejohn et al., 2012). This approach engages students with mindfulness in the most concentrated way possible.

There are some key ways that teachers can integrate mindfulness into the classroom, ones that are beneficial for both the teacher and student alike. Teachers can use mindfulness as a curriculum aid, which can be done by focusing on specific ideas, and narrowing down the content of information used in class (Napoli, 2004). This way, the curriculum is focused more on the quality, rather than the quantity of classroom
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materials, and in doing so can relieve students of excess stress. This strategy opens the curriculum for teachers, and allows them to develop creative ways to integrate mindfulness into their classroom. Mindfulness can also be used as a tool to deal with conflict and anxiety within the classroom and in the school in general (Napoli, 2004). Students can use mindfulness techniques to relieve themselves from test anxiety, and in situations that lead to conflict. Mindfulness can therefore become a tool that they may use in any kind of negative situation they may encounter within the school grounds.

The integration of mindfulness into education contexts has led to many positive outcomes for students of all ages. When a student is mindful, he or she can approach different learning situations from a novel perspective and still draw upon knowledge they have gained earlier (Napoli et al., 2005). Research has displayed a range of cognitive, to social and psychological benefits gained from the use of mindfulness from students in kindergarten all the way to high school. Students have shown improvements in working memory, attention, academic skills, emotional regulation, and self-esteem (Meiklejohn et al., 2012). They had also noted self-reported improvements in mood, as well as decreases in anxiety, fatigue, and stress (Meiklejohn et al., 2012). Participation in mindfulness programs also has been associated with improvements in behavioural regulation, metacognition, and overall executive functioning (Flook et al., 2010). Furthermore, by using mindfulness, students can strengthen their capacity to self-regulate attention (Meiklejohn et al., 2012). This is possible as they develop attentional control through the repeated and intentional sustaining and shifting of attention (Meiklejohn et al., 2012). These implications demonstrate that stress reduction, which arises from mindfulness, has a positive impact on child development. It is also evident that regular practice of
mindfulness also teaches students to enhance their skill of self-regulation.

A well-known example of a mindfulness program that has been adapted for use within a school setting is the MiSP. This program was designed to integrate mindfulness into a secondary school curriculum, and was taught in classrooms by the teachers. MiSP helps students deal with everyday stressors and experiences, which is beneficial because all students can participate equally (Kuyken et al., 2013). This program showed promising potential to reduce stress and enhance well-being of students, consistently over a 3-month period (Kuyken et al., 2013). MiSP, along with many other school interventions, are often attempts at primary prevention methods for stress control. The premise is that if the students can absorb mindfulness practices at an early age, it is possible that they will be able to reduce stress in the future. The prolonged effect of early mindfulness training has been confirmed in a follow-up study (van de Weijer-Bergsma et al., 2014). This suggests that stress reduction and other mindfulness-based programs are beneficial for students’ well-being, and should be given more attention in an education context.

2.3 Known Challenges/Barriers Faced by Students with ADHD

Even in contemporary society, students with learning disabilities and other mental health issues are faced with many barriers and challenges in the classroom. These barriers range from the teacher’s lack of knowledge about student needs, to the lack of training for how to support these students in a classroom setting. Although the Ontario curriculum for supporting the minds of students includes accommodations for the well-being of all students, it has shortcomings in offering full support to students with special needs. Unfortunately there is often a lack of formal training for teachers in offering
assistance to students with these kinds of challenges. Teachers may also not recognize that the student is falling behind due to a learning disability or mental health issue (Carboni, Roach, & Frederick, 2013). This is most apparent when dealing with students who have Attention Deficit Hyperactive Disorder (ADHD). Students with ADHD often struggle with classroom tasks that require a significant level of attention and active involvement (Carboni et al. 2013). If there are no accommodations made in the classroom for these students, they are at risk for falling below their own predicted ability levels. When teachers do make classroom accommodations however, it is not always in ways that will benefit each individual student, but rather in a way that makes it most convenient for the teacher (Nowacek & Mamlin, 2007).

One important issue preventing students with special needs from receiving the assistance that they require, stems from the lack of factual knowledge formally offered to teachers regarding mental health. Walter, Gouze, and Lim (2006) demonstrated that many teachers exhibit a limited amount of overall knowledge about mental health. It is apparent that the amount of knowledge that a teacher has regarding mental health problems is linked to the acceptability of intervention within the classroom for students with special needs (Vereb & DiPerna, 2004). If a teacher is not fully knowledgeable in how to provide the accommodations that a student needs, it is possible that they may not be confident enough to manage mental health problems in the classroom. Teachers as a group are well aware that there is a the need for more training in working with students with disabilities (Nowacek & Mamlin, 2007). This lack of training and support is even acute for teachers who work in rural areas, where the availability of trained specialists in this area is more limited (Nowacek & Mamlin, 2007). Although there may be literature
available to assist educators in dealing with special needs students, such as the Ontario Supporting Minds documents, there is a clear need for more real-life experience to be integrated into teacher training programs.

There are some circumstances where a student with a learning disability may not be receiving the support they require because the teacher might not see their problem as a learning issue. Vereb & DiPerna (2004) noted that a teacher’s acceptability of using accommodations in the classroom for students with ADHD was related to the severity of the child’s behaviour, the amount of time and effort it would take to implement an intervention, and the type of techniques necessary to undertake the intervention. A major factor that affects the effectiveness of an intervention is the teacher’s level of willingness to implement it. Therefore, if a teacher is not prepared to accept or implement an accommodation for students with learning disabilities, there will be complications involved in the process. Nowacek & Mamlin (2007) also found that educators in rural areas were also less likely to separate students with learning disabilities from the rest of the class when doing activities. These teachers were similarly averse to making modifications that did not take little time to implement. Due to the nature of high stakes testing, these teachers felt that individualization of the curriculum was too time consuming, and instead of making accommodations, they insisted on using whole-class strategies (Nowacek & Mamlin, 2007).

Teachers may also have differing expectations regarding students with ADHD who are at different grade levels. For middle school students, the kinds of accommodations that were favoured involved the use of academic rather than behaviour modifications to the curriculum (Nowacek & Mamlin, 2007). This was different from
elementary school teachers, who were more likely to apply both types of modification for students with learning disabilities (Nowacek & Mamlin, 2007). An example of an academic modification would be the length of time required for a student to work on an assignment. A behaviour modification would include allowing the student to move around during class time, or to stand instead of sitting at the desk. Nowacek & Mamlin (2007) maintained that the difference in choice was due to the teachers’ belief that these students could manage their behaviour problem on their own, either through medication, or self-determination. The researchers, however, noted that these students still acted in an inattentive and hyperactive manner, and were easily distractible in the classroom (Nowacek & Mamlin, 2007). Therefore, although these students may have been exhibiting the same behaviour as elementary school students, they were still treated as if they needed less teacher support due to their age.

2.4 Research About Mindfulness Practice as a Response for Supporting Students with Special Needs (Including, but Not Limited to ADHD)

There has been much discussion surrounding the use of mindfulness as a means of assisting students with learning disabilities, as well as other special needs within the classroom. One of the known benefits of mindfulness is its impact on stress reduction, which has been deemed to be very constructive for child development. There are many connections between stress and behavioural, attentional, educational, and other mental health problems in children (Meiklejohn et al., 2012). Mindfulness allows a child to incorporate stress resilience into their daily lives. Research has also shown that mindfulness offers support for students with ADHD, anxiety disorders, and depression, as well as in specific areas of child development.
Yoga has been deemed useful as a means of complementary treatment for students who are already on medication for ADHD (Jensen & Kenny, 2004). As some students who are already on medication treatment may still display hyperactive and inattentive tendencies in the classroom, this has been shown to be a valuable method of support to keep their behaviour in check. Yoga has demonstrated that it can have a calming and focusing effect on students with ADHD (Jensen & Kenny, 2004). Studies also suggest that mindfulness leads to an increase of on-task behaviour for students with ADHD (Carboni et al., 2013). Mindfulness thus strengthens a student’s capacity for self-regulation of attention, which is essential for learning. Mindful attentional control is developed through the processes of repeated and intentional focus, sustaining, and shifting of attention (Meiklejohn et al., 2012). These findings bolster that mindfulness is a constructive means of student support that teachers can provide to aid students with ADHD.

Mindfulness-related activities in the classroom have subsequently had positive effects on levels of student anxiety. Self-reports of trait and state anxiety have declined from pre-test to post-test results, for students engaging in mindfulness meditation (Beauchemin, Hutchins, & Patterson, 2008). This study concluded that mindfulness meditation was beneficial as an intervention for students to reduce anxiety, and encourage higher levels of social functioning and academic performance (Beauchemin et al., 2008). Mindfulness is therefore, also an effective intervention strategy for students to cope with anxiety in the classroom.

Mendelson et al. (2010) noted that as mindfulness produced reductions in involuntary stress responses in the classroom, it was beneficial for students who suffered
from depression. Its practice reduced the activation and prevalence of negative thoughts that exist with rumination (Mendelson et al., 2010). Rumination has been linked to depression persistence, and is a prerequisite for some somatic diseases (Mendelson et al., 2010). Mindfulness is also responsible for enhancing an individual’s capacity for self-regulation, which is a way to cope with mental health issues (Mendelson et al., 2010). The reduction of rumination and enhancement of self-regulation therefore have positive implications for long-term mental and physical health of students.

Furthermore, mindfulness has the capability of supporting students who have low levels of executive functioning. To assist with this, students are encouraged to work on three basic mental functions, which are initiation, monitoring, and shifting (Flook et al., 2010). Attention is brought to the breath (initiation), and the students are to follow the breath and notice whether their attention has drifted (monitoring), and if the mind does wander, they are to refocus their attention onto the breath (shifting) (Flook et al., 2010). After this training, students who initially exhibited low levels of executive functioning had improved to the average range post-training (Flook et al., 2010). This suggests that mindful awareness can support students who may be behind their peers in terms of development.

2.5 Conclusion

Upon reviewing the literature regarding the use of mindfulness in schools, it is evident that there are numerous benefits that students can reap from this practice. If children are taught mindfulness as a life skill from an early age, there is a likelihood that they will be able to adapt to most life situations in a more progressive way. For a teacher, mindfulness can be used as a universal form of accommodation that may be adapted into
the daily or weekly curriculum for the class population in general, or for students with learning disabilities and mental health issues. It is therefore important for mindfulness to be integrated into the classroom to ensure that students are given the proper tools to succeed in school, and in life. This qualitative study will seek to complement the existing empirical and standardized research studies on mindfulness, through interviews of three in-service teachers who are committed to the use of mindfulness within the classroom.

**Chapter 3: Research Methodology**

**3.0 Introduction**

In this chapter I identify the research methodology, pinpointing the various decisions I have made regarding methodology, as well as the rationale I have for making these choices. I begin with an explanation of my research approach and procedures, and proceed to detail the main instrument I used for the collection of my data. I then identify the types of participants that I sought to recruit for this study, defining the sampling criteria, as well as the procedure taken to recruit participants. I continue with a discussion of methods for analyzing the collected data, and then examine the relevant ethical implications that should be considered with regards to this study. Finally, I identify some of the strength of the study, as well as some of its limitations that may affect its impact.

**3.1 Research Approach and Procedures**

This study employs a qualitative research study approach, and reviews the existing literature that is pertinent to the research questions and purpose. I conducted three semi-structured interviews with in-service teachers to collect data for this study.
Within the study of education, it is evident that there is no clear-cut solution that can be found for every question. Merriam (2002) notes that there are multiple constructions of reality, which are all subject to interpretation, and can change over time. Different individuals will have different experiences, which will shape the nature of the information that they contribute to the field of study. The world around us is therefore not a fixed, single, or easily measurable phenomenon (Merriam, 2002). When working with a subject that holds such relativity, it is necessary to use a research approach that reflects this notion, and gives leniency for responses that are not simple or straightforward.

When conducting qualitative research, the researcher is actively creating meaning of the experiences of individuals who are interacting with their own world (Merriam, 2002). With the use of qualitative investigation, a researcher can create a more rich, detailed, and in-depth analysis of the assembled material. Strauss and Corbin (1990) state “most researchers using this methodology hope that their work has direct or potential relevance for both non-academic and academic audiences” (p. 6). Such research can thus be used to gain further insight and perspective about teaching, and pushes for a more comprehensive approach towards the future of education.

The current research study provides an interpretive qualitative exploration of the use of mindfulness in the classroom to assist students with ADHD, from the perspective of teachers. Merriam (2002) defines an interpretive qualitative approach as a study of “how individuals experience and interact with their social world” (p. 4). Here, the ‘social world’ refers to the classroom, and the individuals in question are the students with a specific exceptionality (i.e. ADHD) who interact within it. This study also embarks on
the concept of symbolic interactionism, as it aims to explore the behaviour of these students, and to understand how they are reacting to the mindfulness activities present in their classroom environment. Ritchie, Lewis, Nicholis, McNaughton, and Ormston (2003) identify the study of symbolic interactionism as, how people construct social order and make sense of their social environment. The use of symbolic interactionism is found in the way that the teachers interpret the behaviour of students within the classroom. The use of interpretation is, therefore, key to the fundamentality of this study.

3.2 Instruments of Data Collection

In this study, data was initially collected through a review of relevant literature, and was subsequently gathered through three semi-structured interviews with participating teachers. Ritchie et al. (2003) indicate that both in-depth interviews and the analysis of documented evidence are widely accepted as forms of qualitative data collection. The semi-structured interviews that I engaged in with eligible teachers were the predominant form of data collection used for this study. They provided a thorough insight into the study’s research purpose and questions. With this data, I gained a perception of how mindfulness affects students with ADHD at this precise point in time, and within this specific context.

Semi-structured interviews are essentially a form of conversation that allow for the collection of knowledge. Knowledge is not simply a given within this context, but is constructed through a collaboration between the interviewee and the researcher (Ritchie et al., 2003). Ritchie et al. (2003) note that the protocol of semi-structured interviews combines structure with flexibility, in the sense that the structure can be manipulated so that answers can be fully probed and explored. In this way, interviews can be understood
as interactive, as the interviewer will often ask questions to encourage the interviewee to answer freely (Ritchie et al., 2003). The questions asked in an interview should thus promote answers that are insightful and evoke intricate explanation. The interviewer may also re-word, re-order, or clarify questions to further investigate the information that the respondent has given (Tong, Sainsbury, & Craig, 2007). A thorough and deep understanding of the subject matter is essential to a qualitative study, in order to accumulate information that is as descriptive as possible.

3.3 Participants

While conducting a study, there are several considerations to be made when choosing participants. The sampling criteria that I chose reflects the purpose and questions of the study, and was created to gain the maximum output of data from the small number of interviews conducted. Below I address the methodology I used to choose the participants for this study.

3.3.1 Sampling criteria

The following criteria were necessary for participants to be eligible for this study:

1. Teachers must have completed training for teaching mindfulness, which may include yoga, breathing techniques, and/or meditation.
2. Teachers must incorporate mindfulness into their classroom multiple times weekly, if not daily.
3. Teachers must have a minimum of 3 years of experience teaching students with ADHD.
4. Teachers may be of any gender.
5. Teachers will be working in the Greater Toronto Area.
To gather data that is as relevant to the current field of study, it is necessary to have very specific criteria for choosing participants. Polkinghorne (2005) indicates that participants in a study should not solely be selected based on simple criteria, but also for the substantiality of the information that they can contribute to the study. The individuals who I interviewed were therefore carefully selected, to provide data that was adequately comprehensive for qualitative analysis. These criteria required that teachers have completed some form of training in the field of mindfulness, and incorporated mindfulness activities into their weekly (if not daily) routines. These teachers were also required to currently have students with ADHD within their class. Aside from that, the teachers had to be presently working within the Greater Toronto Area, and could be of any gender.

### 3.3.2 Sampling procedures/recruitment

As qualitative research is very different from other methods of research, it necessitates that a distinctive protocol be used in sampling. Qualitative research uses non-probability samples, which means that the individuals selected are not chosen at random (Ritchie et al., 2003). As Polkinghorne (2005) notes, it has a specific set of criteria for selecting its data sources, in contrast to quantitative research, which attempts to make specific claims about a population, and thus uses a randomized (or probability) sample from the population in question. Qualitative research focuses on gathering an understanding of the human experience. The sampling procedure must therefore reflect this concept, and compile information from a very thorough investigation of an experience.

The main form of sampling employed in this study was purposive sampling.
Polkinghorne (2005) contends that the “purposive selection of data sources involves choosing people or documents from which the researcher can substantially learn about the experience” (p. 140). In purposive sampling, there are two major objectives in choosing a sample. The primary objective is that all the essential areas of relevance in the subject matter be adequately covered (Ritchie et al., 2003). The secondary objective of purposive sampling is to ensure that some form of diversity is brought into the samples, so that the validity of the representation can be expanded (Ritchie et al., 2003). It was important that the sources used were selected with these aspects in mind, so that the topic chosen could be studied in depth.

As this study had a very limited sample size, I chose participants who provided the most rich and detailed understanding of the study’s purpose and questions. The participants had to fit the specific sampling criteria that I chose for the study, and had to be accessible for interviews during the time I was available to collect data. I used convenience sampling by drawing on the connections that I had through teachers, participants, and other individuals that knew teachers who used mindfulness in their classrooms.

3.3.3 Participant biographies

Mary Jane

At the time of the research, Mary Jane has previously been working as a grade 1/2 split teacher, and was about to begin working as a grade 4/5 teacher in the coming school year. Prior to that she had taught a grade 5/6 class, as well as full-day kindergarten. Earlier in her teaching career, she had taught junior HSP, and was a primary reading support and physical education teacher for students from kindergarten to
grade 3. In the late 1990’s, Mary Jane worked as a curriculum consultant for science and drama in-school programming, and had taught theatre at Young Peoples’ Theatre and at another creative arts school in Hamilton, Ontario. She had co-founded a mindfulness and board games program for students during recess and lunch time on Wednesdays, which targeted at-risk students in the primary division at her current school.

Parker

At the time of the study, Parker was about to teach in a grade 2 class. Prior to that he had taught grades 3-7 for nine years. Parker taught in a private school that focused on the Ontario curriculum, with an additional concept of character education called “Education in Human Values”. Part of the school’s character education program required its teachers to incorporate the practice of yoga and meditation into the classroom’s daily schedule. Parker also was a member of the school’s administrative body that was responsible for curriculum development, student selection, resource management, scholastic management, parent council, public speaking, and science fair coordination.

Abigail

At the time of the study, Abigail was beginning her 20th year as a teacher, and taught classes between grades 3, 4, and 6 for her entire teaching career. She was the lead teacher for mindfulness at her school, and put on mindfulness workshops for other teachers. In the previous year, Abigail had also run a book club with a mindfulness curriculum to educate teachers about books that can be used to support the practice of mindfulness in the classroom.

3.4 Data Analysis
In qualitative research, there are no strict rules or guidelines that researchers are required to follow with regards to data analysis (Ritchie et al., 2003). Merriam (2002) states that with qualitative investigation, data analysis occurs simultaneously with data collection. A researcher should therefore begin analyzing data during the first interview, which permits them to make adjustments in their direction as the interview proceeds (Merriam, 2002). If managed correctly, the researcher would therefore have the ability to redirect the interview, and actively test certain ideas or themes against the data they are collecting.

Data analysis is essentially an inductive strategy, which begins with a single unit of data, and follows on with its comparison to other units of data (Merriam, 2002). The purpose of this action is to look for common patterns in the data. Once the researcher has noted common patterns, they can carefully select specific labels and categories, which allows for them to organize and further the data analysis (Ritchie et al., 2003). In this study, I employed a cross-sectional “code and retrieve” method to organize and analyze data. Data was collected through the transcribing of interviews that I conducted with in-service teachers. With this type of method, I devised a common system of categories, which was applied across the entire data, and used it as a means of searching for and retrieving chunks of labelled data. I then sorted the information into divisions that were relevant to my secondary research questions, and created grouping ideas from recurring themes that were present within my data. Once I had organized the information into these categorized themes, I was then able to draw connections between participant experiences, and record my three findings sections based on these connections.

3.5 Ethical Review Procedures
When conducting research, there are several ethical considerations to note that may affect the individuals who participate, or the researcher. Before participants begin, their informed consent is required. They must be provided clear information regarding the study’s contents, how the research will be used, and what participation will require of them (Ritchie et al., 2003). Informed consent should also be based on an understanding that participation is voluntary (Ritchie et al., 2003). Consent is not absolute, and needs to be assessed, and negotiated with the participants.

Participant anonymity and confidentiality are also fundamental to consider when conducting research. Ritchie et al. (2003) articulates the term anonymity means that the identity of the individual who is taking part in the study is not known to anyone outside of the research team. Confidentiality refers to “avoiding the attribution of comments, in reports or presentations, to identified participants” (Ritchie et al., 2003, p. 67). The attribution of comments to individuals should be avoided both within direct and indirect contexts. These issues also reflect how the data of a study should be stored. Transcripts should not be labelled in a way that may jeopardize the anonymity of participants, and any identifying information must be stored separately from the data (Ritchie et al., 2003).

It is important for a researcher to consider that a study’s participants may be subjected to harm, and must therefore take aversive action to deter this from occurring. Harm can arise from the discussion of subjects that have sensitive topics, or when the participant is asked to share painful experiences or memories with the researcher (Ritchie et al., 2003). A researcher should anticipate, and be responsive to the sensitivities raised within the questions they ask. Researchers should also adhere to the participants’ wishes if they revoke consent for using information that they have disclosed within an interview.
Given the topic of using mindfulness to support students with ADHD in the classroom, there was no expected harm in the interview questions asked. I informed my participants that the questions were subject to change, as I may have decided to reframe questions, or probe deeper into some responses. Throughout the interview, I reminded participants that they were not obligated to respond to any questions that they did not feel comfortable with answering. I also offered them the transcribed data for review before I used it for analysis. Finally, I provided the teachers, as well as the students they referred to with pseudonyms, to protect their identities in the study. The data was safely stored on a separate hard drive, that was password protected throughout a period of 5 years after the study had taken place. Participants were appropriately given information regarding the study, and informed of the ethical considerations, as well as what participation required of them. Appendix A provided them with this information, and requested permission for the interview to be recorded. Participants were consistently reminded about their right to withdraw their participation at any time.

3.6 Methodological Limitations and Strengths

While performing a research study, there are many limitations that should remain in the forefront of the researcher’s mind. Ritchie et al. (2003) have identified the issues of validity and reliability to be of significance when conducting a study. If a study is reliable, that means its results can be replicated if an identical study is undertaken. Validity is mainly concerned with the ‘correctness’ or ‘precision’ of the study’s findings (Ritchie et al., 2003, p. 81). A deduction where both Carr (1994) and Ritchie et al. (2003) agree is that qualitative research is more concerned with a study’s validity, rather than its reliability. Reliability is more significant in quantitative research studies, where
results must be replicated to be proven factual. Carr (1994) notes that qualitative studies have less issue with upholding validity than quantitative studies, because the research is undertaken in a more natural setting and is less controlled by the researcher.

Another limitation that is evident in a qualitative research study is the issue of whether results can be generalized to include other populations or contexts. Ritchie et al. (2003) identifies three separate, but linked aspects to the concept of generalization. The first division is representational generalization, which determines if the results can be representative of the parent population in which it is drawn from. The second aspect is inferential generalization, meaning that results can be generalized to other settings or contexts beyond the one sampled. Finally, the third part is theoretical generalization, which is concerned with a study’s ability to create propositions or statements drawn from its findings for more general application (Ritchie et al., 2003).

In terms of its methodology, this study has many limitations. Out of these limitations, and the most disadvantageous is its lack of generalizability. As the study was focused on a specific group of in-service teachers working within a specific setting, and is not considered in another context, inferential generalization will be irrelevant. As there were only three samples for this study, the sample size was very small, and the results are thus impracticable for the other two types of generalization (representational and theoretical).

Another limitation of the study is that there is a very restricted type of participant available for analysis. This study only recruited in-service teachers as participants, and did not interview students or parents. The teachers not only discussed their own experiences of mindfulness in the classroom, but they were also required to use their
skills of observation and recollection to explicate how their students reacted to the mindfulness activities. This narrows data collection to a self-reported surveillance of students, and does not include the students’ own personal experiences of mindfulness teaching in the classroom.

The study was also limited by the time constraints that the researcher was required to withstand while collecting data, as well as analyzing the data. The final limitation of this study was its potential for researcher bias. The information gathered was solely based upon the questions that were asked by the interviewer, and reflected what the interviewer deemed important to the research questions asked in the study. The material collected was also categorized and sorted by the researcher, meaning that some important information may have been neglected if not deemed significant to the study’s purpose.

The primary strength of this study is the depth of exploration of its purpose, as it offers a thorough understanding of the use of mindfulness within the classroom for supporting students with ADHD. This makes its validity high. The interview process provided me with a comprehensive investigation into the personal experiences of teacher participants, and adds additional information to a continuously growing and progressive field of research.

3.7 Conclusion: Brief Overview and Preview of What is Next

In this chapter, I explained the research methodology used in this study. I began with a discussion of the research approach and procedures, and progressed into the instruments I used to collect data. I identified that the primary instrument used to collect data in this study were three semi-structured interviews with participants who fit my
sample criteria. I identified the teaching background of participants I used in the study using pseudonyms, discussed the sampling criteria I chose, as well as the procedures I used to recruit participants. I subsequently proceeded to discuss how I analyzed the data, and presented the ethical issues concerned with the study. Lastly, I identified the methodological limitations of the study, such as its lack of generalizability, and also identifying its strengths. In the next chapter, I will report on the findings of the research.

Chapter 4: Findings

4.0 Introduction

In this chapter, I present and explore the data I collected in three semi-structured interviews with educators who regularly employ mindfulness practices in their classrooms. Throughout my analysis, I maintained focused on my research question: “How is a sample of elementary teachers using breathing techniques, yoga, and meditation to foster mindfulness, and what outcomes do they observe from students with ADHD?” I also discussed the differential practices and experiences of these educators in a distinctive classroom setting. Throughout the discussion, connections are drawn between my findings and the research cited during my literature review in Chapter 2. My findings are threefold:

1) Instructors who integrate mindfulness are using a variety of practices to perform specific functions within their classrooms.

2) Instructors who integrate mindfulness observe a range of positive outcomes for the general student population, as well as for students with ADHD.

3) Instructors who integrate mindfulness have faced situational and attitudinal
challenges for the success of their classroom practices, which they have overcome through strategies such as outreach and flexibility.

With this insight, I hope to provide educators and researchers with an understanding of the ways that mindfulness is utilized in contemporary school settings, and how it affects the students and classroom environment.

4.1 Instructors Who Integrate Mindfulness are Using a Variety of Practices to Perform Specific Functions Within Their Classrooms

All participants had indicated that mindfulness allowed them to pursue the achievement of specific objectives within their own classroom setting. It is important for instructors to consider the differential purposes that mindfulness can fulfill in the classroom, to obtain all of its benefits. Notably, these instructors were employing mindfulness to strategically establish the tone in their classroom as a calm and peaceful environment. Participants were also utilizing mindfulness to provide their students with specific mental tools, which ultimately translate into important life skills for their future success. Moreover, these instructors were engaging in a range of different mindfulness practices, to captivate the interest of their students with the general concepts of mindfulness.

4.1.1 Instructors are utilizing mindfulness to establish a peaceful and structured classroom environment

There was a consensus among participants that the use of mindfulness had a substantial effect on the way that their classroom atmosphere was established. When invoked, these mindfulness strategies can reset the classroom environment, and change its tone from varying levels of disarray to serenity, in a relatively short period of time.
Referring to her classroom atmosphere after a mindfulness activity, Abigail states, “After just one or two minutes, you can really feel the difference. It’s like the energy in the classroom changes.” Both Mary Jane and Abigail emphasized the importance of mindfulness for the transitions that their classrooms are required to endure for an average school day. As transitions are typically recognized as a time when a classroom gets chaotic, they find that mindfulness helped ease the nature of the class into a more peaceful state, so that they can continue with the school day in a more relaxed manner.

All three participants stated that early incorporation into the classroom routine was a key prerequisite for the success of mindfulness practices. It is thus important to accept mindfulness as a core value within the classroom at the beginning of the year. Teachers often must begin their classroom’s mindfulness practice without the students having any prior knowledge of the topic. This was the case for both Abigail and Mary Jane, who were required to commit to teaching mindfulness to their students so they could grasp its concepts. Parker accredited the ease of establishing his classroom’s mindfulness routine to the school he is employed at, which has a mandatory mindfulness program. As the school’s foundation places value upon mindfulness from an early age, he did not have to single-handedly create a practice with his own students. Students need to be taught the key concepts of mindfulness as early as possible, so that they can learn this as a classroom value from the beginning. Kuyken et al (2013) supports this finding, stating that the earlier students learn these practices, the better their results are in the future.

Participants also highlighted the importance of gradually integrating mindfulness activities into the classroom routine. Abigail indicated that at the beginning of each
school year, she allocates a 30-minute time block every week for mindfulness. Once the students have become more comfortable with it, she begins to incorporate mindfulness activities daily. Through her experience, she has determined that mindfulness can be challenging for some students to practice, and thus needs to be amalgamated into the routine slowly for all students to become accustomed to it.

4.1.2 Instructors are utilizing mindfulness to provide their students with cognitive tools and life skills

Within their mindfulness instruction, both Abigail and Mary Jane maintain an emphasis on educating their students about the brain. Specifically, they teach their students about the amygdala and its natural fight or flight responses to threatening stimuli. Mary Jane recognizes that her students benefit from understanding this language, as they are given a means by which they can express their feelings. She considers that the choices that are made during stressful situations are often instinctive, and can be changed through the use of mindfulness. Thus, when employing mindfulness, students can understand that their reactive feelings are natural, and that they can make better decisions by being more aware of the situation at hand. Parker viewed this prospect of teaching students to make better decisions as a means for strengthening their sense of willpower, which he considered to be a comprehensive life skill.

All participants indicated that they often employ mindfulness in their classrooms as a response to adverse events that occurred during the school day. These instructors maintain that mindfulness had been successful in transforming a classroom afflicted by stress into one that is supportive and accommodating for all students. Abigail specifically finds that mindfulness techniques teach her students to counter the negative effects of
distressing events. She stated, “So by taking one minute, you can feel the air change, like everything just calms, the kids are more alert, whatever was troubling them before no longer seems so important, and their attention is tuned to me.” During their classroom community mindfulness circles, Abigail and Mary Jane also give their students the opportunity to share their feelings about specific incidents that may have been upsetting to them. Mary Jane expressed that this sense of support and community often translated into the way that her students interacted. She explains,

Sometimes when my grade 1-2’s last year would see that their friend was having a challenging time, they would go over and sit with them and rub their backs. They would help each other, and I thought it was beautiful to see them modeling that behaviour.

This notion is supported by Napoli (2004), who states that mindfulness can be used as a helpful tool to assist students in dealing with stress and anxiety in the classroom. It is thus evident that these mindfulness exercises may have a lasting impact upon students’ social skills, as well as their ability to deal with stressful situations through communication and mutual support.

**4.1.3 Instructors are utilizing mindfulness techniques to foster student engagement through a range of practices**

To maintain student interest in mindfulness, instructors expressed that they need to regularly design and employ different creative activities for their students to partake in. Parker expressed that his students often became disinterested in doing the same form of meditation every day, so he began to integrate a diverse range of meditation techniques into his classroom. He found that his students responded best to activities that were more
game-like in nature. He notes,

I do one that they really like, because it’s kind of a game for them, but it is an activity that is based on distraction, and it helps develop their ability to stay still. Here, they will sit still, and I will do my best to distract them, and try to make them laugh or react, and their goal is to be disciplined and not react.

In addition to this, Parker notes that it is important to show students that there are many ways to obtain the same goal when pursuing mindfulness. This notion is supported by Abigail, who teaches her students that they can practice mindfulness in everything that they do. When students learn that they can do anything mindfully, this gives them the opportunity to understand that mindfulness does not have to be achieved solely through meditation and breathing, but can be done through any means.

All participants have recognized that through their years of practice, their students have generally responded well to whole class mindfulness activities. In response to this, they have been able to successfully integrate mindfulness into other classroom activities to promote student engagement. Both Mary Jane and Abigail have expressed an ease in their ability to incorporate mindfulness into the Ontario arts curriculum. As Mary Jane had a background in theatrical arts, she often taught drama classes that had a mindfulness feature to them. Notably, she found that activities such as yoga flowed as a natural part of teaching theatre, which she could easily be brought into her drama class. Similarly, Abigail highlighted that she had done a mindfulness visual arts class with her students. The focus of this lesson was to allow her students to use mindfulness while colouring and drawing. This practice was confirmed by Napoli (2004), who noted that mindfulness could be used as a supportive curriculum aid within the classroom. Mindfulness can thus
be employed as a tool to promote student engagement in many curriculum areas in Ontario schools.

4.2 Instructors who Integrate Mindfulness Observe a Range of Positive Outcomes for the General Student Population, as well as for Students with ADHD

All participants indicated that the inclusion of mindfulness in their classroom had led to several personal advantages for their students. These instructors observed benefits for the general student population in socio-emotional and academic ability. Participants also noted that there was value to these exercises for the classroom’s growth as a supportive and meaningful community. These findings are significant because the prosperities of mindfulness are widespread and should be more publicly recognized. Although these activities were often more challenging for students with ADHD, participants suggested that these students were the ones who benefitted the most from it.

4.2.1 Instructors who integrate mindfulness are observing socio-emotional benefits for their students

Out of all the positive impacts that mindfulness had upon their students, all participants emphasized that its ability to teach self-regulation was of key significance. Abigail highlighted that it is essential to educate students to self-regulate with the breath, as it is something that is always accessible for them. Abigail claimed that self-regulation can be achieved through “body awareness”, which occurs when students listen to their own psychological cues. She noted that some students have emotional triggers, which can be inadvertently set off at any time during the school day. These incidents have the potential to be mediated through the practice of mindfulness. Abigail recalled her prior success with creating a strategy to help a student to regulate his own emotions, where he
would gesture when he required a mental break from the classroom. She was thus able to use mindfulness to teach this student to identify when he was going to lose control and help him self-regulate his emotions. These findings endorse the research by Napoli et al (2005), who state that mindfulness teaches students to approach different learning situations from a novel perspective, while drawing upon prior knowledge.

Mary Jane respectively noted that the idea of “body awareness” comes through teaching students language about the brain. More specifically, informing them about what is occurring when they are triggered into fight or flight mode, and how to prevent this from being executed. She specifies, “For them to do something outside of their normal movement lexicon or repertoire, for them to put their hands over their face and breathe, I think there is that actual physical memory that allows them to think about what it is to actually focus on their breathing and then relax.” In this way, students can learn self-regulation, not only through using breathing, but also through understanding the natural functions that occur within the brain when they are experiencing emotional distress.

Another notable socio-emotional benefit that mindfulness has fostered in students is the raising of self-esteem. Mary Jane recalled that her use of mindfulness in the classroom gave her the ability to assist a student who had a particularly low tolerance for auditory distraction. She stipulated, “We would just take a couple minutes to be aware of all the sounds that were happening, and then would begin to pinpoint them, so that we could dissect them.” After they began to work together with this mindfulness exercise, the student began to feel more comfortable in class participation, and took more initiative in doing her work in the regular classroom setting. Through witnessing this outcome,
Mary Jane believed that these activities were helpful for her student to become more confident in her own abilities. These socio-emotional benefits coincide with the findings expressed by Flook et al. (2010), who recognized that mindfulness programs led to enhancements in behavioural regulation, metacognition, and overall executive functioning.

4.2.2 Instructors who integrate mindfulness are observing academic benefits for their students

There is consensus among participants that there is merit to the use of mindfulness within academia. Mindfulness has been strongly correlated with the enhancement of attention, along with other academic skills that are conducive to student learning. Carboni et al. (2013) recognize that students with ADHD often struggle with classroom activities that require sustaining attention for a long period of time. Participants indicated that mindfulness activities had a particularly profound impact among students diagnosed with ADHD, as well as those who exhibited ADHD-like symptoms. Parker notes that students who exhibited symptoms of ADHD often had improvements in focus for a time after partaking in mindfulness exercises. He stated,

After the practice of mindfulness, I found for a period, not a long period, but for maybe the next period in class, or maybe two depending on how effective it was, they remained more focused. And as the day went through, they went back to who they were previously, but there was a time where they did benefit.

Mindfulness has thus been observed to assist students who typically face challenges with focusing on the task at hand. This affirms Carboni et al. (2013)’s finding that mindfulness leads to a positive shift towards on-task behaviours in students with ADHD.
Participants have agreed that mindfulness can prepare students for learning. Parker believes that mindfulness helps his students become more mentally present in the classroom. He states, “I think the more present a student can be during lesson and work time, the better their results are going to get, and the more they’re going to get out of school.” Similarly, Mary Jane and Abigail found that their students show an improved ability to retain information after the class practiced mindfulness. Parker emphasizes that mindfulness can be viewed as a form of academic training for students, for them to build the mental muscles necessary to succeed in school.

When working with junior grades, Parker also found that mindfulness has been effective in helping his students prepare for tests. He claims that his students would often stress about their grades in these years, and would tend to have anxiety before tests. To address this, he began to include a mindfulness meditation exercise before conducting this form of student assessment, one which the students responded to positively. Napoli (2004) confirms this, suggesting that mindfulness is a strategic way for teachers to equip their students to cope with test anxiety. Parker was therefore able to employ mindfulness to de-stress his students, to improve their success during test-based evaluation.

4.2.3 Instructors who integrate mindfulness are observing overall benefits for the classroom community as a whole

Aside from all the personal benefits that mindfulness poses to students, participants have also acknowledged that mindfulness is also valuable for the entire classroom community. Abigail says that mindfulness has a connection to kindness and gratitude within her classroom’s practice. She states,

Kindness kind of flows into mindfulness, and gratitude is taught in the mindfulness
program, so these are things that make everyone happier. When you can focus on what you’re grateful for, especially for children who don’t have much in terms of fancy homes. But when they can think of the things they do have, it allows them to be a lot happier in their own lives.

Comparably, Mary Jane noted that her students were able to learn the concept of equity through her application of mindfulness in the classroom. She recalled that her students could identify when one student did not have the same resources at home as his peers, and decided to share the class snacks equitably instead of equally. Mindfulness thus plays a key role in how these students interact with each other daily. The findings of Beauchemin et al (2008) provides support for this, and highlights that mindfulness leads to higher levels of social functioning in children.

Based upon this shift towards kindness, gratitude, and equality, mindfulness can create a classroom environment that is safe and accepting for all students. Abigail notes that students with ADHD often have a challenging time fitting into the regular classroom environment, both socially and academically. She highlights the necessity for these students to receive extra support within the classroom setting. She states that these students need a flexible work environment, breaks from learning, emotional support, and acceptance from their peers. She believes that bringing mindfulness into the classroom can provide these students with the additional support they require. Abigail states further that, “The teacher has to create an environment where everyone is accepted, even though some behaviours might be frustrating for others in the classroom.” Abigail has employed mindfulness to create a classroom setting that can provide an inclusive classroom environment for all students. This correlates with Mary Jane’s view that mindfulness can
be used as a method of universal design. She emphasizes that mindfulness can promote all students to be successful, regardless of their needs for additional support.

4.3 Instructors who Integrate Mindfulness Have Faced Situational and Attitudinal Challenges for the Success of their Classroom Practices, which they have Overcome Through Strategies such as Outreach and Flexibility

By employing mindfulness into their classrooms, participants have noted that they are also faced with numerous obstacles. It is important for teachers to consider potential difficulties in bringing mindfulness into the classroom, as well as learn how to avoid or recover from them. First and foremost, all participants have discussed having situational challenges, which are caused by physical boundaries. Secondarily, they have also experienced attitudinal challenges, stemming from individual beliefs and perceptions about mindfulness. To respond to these difficulties, these instructors have employed various strategies, that have proven effective in the continuation of their practice.

4.3.1 Instructors have identified that physical constraints may pose limitations for the successful incorporation of mindfulness into a classroom

All participants have indicated that the biggest obstruction in practicing mindfulness in the classroom is the availability of time during the school day. Abigail highlights the importance of maintaining a time commitment for practicing mindfulness in the classroom. She states,

They need the background as much as adults do, so a lot of teachers feel this pressure that they must teach the curriculum, and that they don’t have the time, and they don’t realize that kids actually learn better when they’re happier and calmer, and so it does take a time commitment.

As there is notable pressure to teach all the different curriculum subjects, teachers are
often at odds when they are trying to include additional topics into their class time. To respond to this, participants indicate that teachers must persevere and be consistent in providing time for their classroom mindfulness practice. At Parker’s school, there is an additional 40 minutes of class time included in the schedule for mindfulness every day. As he has this time set out for him, he does not need to find the time to incorporate mindfulness activities into his daily schedule. To resolve the issue of not having time set aside in their teaching day at their schools, both Abigail and Mary Jane have selected a specific time for their classes to practice mindfulness daily. They specify that it is very important to preserve this time in their daily schedules, and only skip the period used for mindfulness when there is a mandatory school-wide assembly. This provides their students with the consistency they require to truly reap the benefits of mindfulness.

The other physical restraint for practicing mindfulness that was noted by participants was that there is often not enough available space in classrooms to practice it. Regarding this, instructors must be flexible in how they conduct their mindfulness exercises. Mary Jane admits that she has found it challenging to practice mindfulness activities within classrooms that have many students. She states,

There are classrooms where you have 39 students, and you have desks and things like technology or whatever else in the room. These things clutter the space, so it becomes a very busy, visual place, and there are bodies everywhere. I’ve been in classrooms in older buildings where there are people on top of each other. There’s just not enough space, and I find it challenging to be mindful in a space where you’re touching someone.

It is reasonable to assume that when a teacher feels overwhelmed with the lack of
classroom space, students are likely to hold a similar feeling. This is an extension for the research conducted by Meiklejohn et al (2012), who stated that mindfulness cannot always be conducted properly without a comfortable space. To resolve this problem, participants have discovered creative ways to do mindfulness exercises, within the little space that the classroom parameters might offer. On days where the classroom is more cluttered, Parker got his students to practice mindfulness in their own desk space. He claims that this also teaches them that mindfulness does not always have to be practiced in the same way, and that different methods can be used. A high level of flexibility is thus the key for practicing mindfulness daily in less spacious class areas.

4.3.2 Instructors have identified that individual receptiveness towards mindfulness may pose limitations for the successful incorporation of mindfulness into a classroom

While Mary Jane and Abigail claimed that most of their students were generally receptive towards practicing mindfulness, Parker noted he faced some challenges in getting his students on board. Although his students did not necessarily hold adverse attitudes towards practicing mindfulness, he did find that some of them were often not engrossed during class practice time. Parker’s experience suggests that it is not quite enough for an instructor to emit mindfulness for their students to become interested through exposure. This notion challenges the finding of Meiklejohn et al (2012) that students can learn mindfulness indirectly through a teacher who practices mindfulness. Both Abigail and Mary Jane recognize that students need extra opportunity to mentally engage with mindfulness to truly commit to it. To cultivate their students’ interest, they both employed the similar tactic of teaching their students about the brain’s functions when practicing mindfulness. Abigail also found that telling students about her own
background regarding why she herself began to practice mindfulness was a positive step towards student engagement. It is thus evident that when students can psychologically attach themselves to the value of mindfulness, there is a greater possibility they will find the practice more rewarding.

Regarding students with ADHD, participants disclosed mixed reviews about the universal receptiveness of mindfulness in their classrooms. Mary Jane indicated that all her students responded positively to mindfulness activities, including those with behavioural challenges and ADHD. Abigail however revealed that she had one student with ADHD who had very negative reactions to practicing mindfulness in the classroom. She stated,

He would react very aggressively to the mindfulness. He was literally jumping out of his skin, so the idea of not being able to move, the idea of being quiet and still filled him with a great deal with anxiety. So, when I would do the mindfulness, he would act out, he would throw things, he would get up and sharpen pencils. He would do anything to sabotage what was happening.

She believed that the student was responding this way due to experiencing severe anxiety in being forced to sit still. However, after the student began to take ADHD medication Abigail noted that his attitude began to change. Although he did not fully participate in the activities, he slowly became more accustomed to his classmates practicing it, and was less disruptive during their training. Parker found that his students with ADHD often found breathing meditations the most challenging, since it required them to sit still and focus on the breath. To respond to this, Parker began to incorporate more guided meditations into their practice, which they found easier to do. Individual student
capability for practicing mindfulness is thus likely dependent on specific factors, which are uniquely present in different classroom situations.

The last challenge that participants have encountered in incorporating mindfulness practices is parental misconceptions about what it is and what it does. Both Mary Jane and Abigail have found that there is a stigma surrounding the topic of mindfulness, since it sometimes misunderstood as having a religious connection. They emphasized that educating the parental body was the most effective way to combat the trend of misinformation. Both instructors sent students home with general information about practicing mindfulness, and directed parents towards in-school workshops if they were interested. Abigail highlighted that she also came up with ways for her students to teach their parents about mindfulness. She states, “One of the things I did to respond to this was that I had one of my students last year write an article in the school newsletter explaining why she loves practicing mindfulness.” Mary Jane also found that changing the terminology with which these activities are referred to can also deflect parental concerns. For example, instead of calling it “yoga”, she would just use the word “stretching”. By being innovative, these instructors were able to effectively change parental misconceptions of mindfulness by using novel methods of communication.

4.4 Conclusion

In conclusion, this study found that educators are composing innovative ways to employ mindfulness into their classrooms. These practices have resulted in instructors providing engagement, support, and emotional fulfillment for their students. These findings offer a significant contribution to the existing literature, which does not fully describe the positive effects that mindfulness can have on a classroom environment.
Existing literature also lacks recognition of the barriers that instructors experience when opting to employ mindfulness into their classroom. As these challenges were not specifically addressed, there was consequently no reflection for how they might be overcome. These discoveries were derived from the personal experiences of working instructors, and offer genuine insight into the difficulties encountered in the incorporation of mindfulness into the classroom.

Chapter 5: Discussion

5.0 Introduction

In this chapter, I discuss the overall implications and significance of this study. I begin by expanding upon the discussion of key findings in how teachers use mindfulness as responsive pedagogy to support their students in the classroom. I then deliberate upon the implications that the findings hold for practicing teachers, principals, representatives of the mindfulness community, as well as for myself as a teacher-researcher. Regarding this, I make recommendations, which may be useful for consideration by other educational professionals who are interested in bringing mindfulness into schools. Finally, I convey directions for where I believe that further research and discussion in the field are required.

5.1 Overview of Key Findings and Their Significance

As discussed in the previous chapter, mindfulness has been observed to produce a very positive impact when practiced in the classroom. Teachers have been able to employ mindfulness to perform specific functions in their classrooms. These functions include setting a calm and peaceful tone in the classroom, fostering student engagement,
and in promoting the growth of cognitive abilities such as coping with stress and sensible decision-making. With regards to student engagement, this study provides an extension to the existing literature, as it has observed that mindfulness can be directly implemented into the Ontario Arts curriculum to captivate student interest.

Instructors who implement mindfulness into their classrooms are also witnessing several benefits for the general student populations, as well as for students with ADHD. The use of mindfulness has demonstrated growth in student socio-emotional ability, as it raises self-esteem, and teaches self-regulation through body awareness. Mindfulness has also demonstrated positive outcomes for student academic capability, especially for students with ADHD, as it encourages attention regulation and reduces test anxiety. Furthermore, instructors have observed that mindfulness maintains benefits for the classroom community through the promotion of kindness and acceptability. Another contribution to existing literature this study makes is its observation that mindfulness does not only lead to higher levels of social functioning, but it also teaches students equity and equality through community and empathy building, which can be integrated into the classroom environment.

Finally, this study exposed the reality that teachers who implement mindfulness are often faced with situational and attitudinal barriers towards creating a practice in their classroom. This is a substantial contribution to existing research, which does not provide consideration that there may be obstacles that hinder the exercise of mindfulness in a classroom setting. With a lack of discourse on these issues, there is little existing consideration for how these challenges can be overcome. Instructors have indicated that situational factors, such as time and space, may restrict a teacher’s incorporation of
mindfulness into the classroom. Participants also encountered attitudinal challenges, which include individual receptiveness of mindfulness by both students and parents. These findings provide need for further extension of existing research, as they indicate that students must often find personal meaning in mindfulness to practice it authentically. This study also provides insight upon the realities faced by classroom instructors who believe in mindfulness and wish to implement it into the classroom.

5.2 Implications

In this section, I outline implications of my research findings for practicing teachers, principals, any individuals who are representative of the mindfulness community, as well as for myself as a teacher-researcher.

5.2.1 Broad: Teachers

This study indicates that there are substantial rewards for teachers who pursue a classroom mindfulness practice. For teachers who are seeking ways to provide extra support for their students, mindfulness can be understood as a means of universal design that benefits all students, in addition to those who struggle with ADHD. Mindfulness is an inexpensive resource that can provide a platform for students to develop cognitive, socio-emotional and academic abilities within the classroom setting. As observed in this study, mindfulness can be used to ease transitions and calm the classroom tone, and it does not have to necessarily be taught on its own, since it can be integrated into curriculum areas such as the Arts curriculum. Additionally, mindfulness has been observed to establish a classroom environment that values kindness, inclusivity, and equity.

Other implications of this study’s findings indicate that there can be difficulties
encountered in integrating mindfulness into the classroom. Mindfulness requires a year-round time commitment, which may deter some instructors from correctly implementing it, or deleting it entirely from their schedule. Lack of sufficient classroom space can be a barrier for the implementation of mindfulness, as students need to practice in a space where they feel comfortable. This study also found that individual attitudes of students, as well as those of parents might conflict with the success of mindfulness in the classroom setting. Students and parents often need to receive proper education about the benefits of mindfulness, to minimize opposition and promote engagement in its practice.

5.2.2 Broad: Principals

The findings of this study suggest that it is beneficial for principals to support their teachers in establishing and maintaining a mindfulness practice with their classrooms. This may include purchasing resources for their teachers, providing them with training, or encouraging their attendance at mindfulness workshops. All participants of this study indicated that mindfulness can provide a sense of community to large groups of people. If practiced as a school-wide initiative, mindfulness can thus have the ability to promote a safer school environment, and maintain high standards for equity, inclusivity, and kindness within the school’s value system.

This study identifies that students who practice mindfulness are given cognitive tools to learn emotional regulation, the ability to make decisions without relying upon impulse, and to develop positive social skills. If students learn these abilities on a regular basis, it fosters a positive spin on their behaviour during the average school day. This promotes reduced work regarding disciplinary issues for principals, as teachers can decrease the amount of times that students are sent to the office for inappropriate
behaviour. With a lessened need for disciplinary action during and after school hours, principals can be allotted more time to manage other aspects of their school-related responsibilities.

5.2.3 Broad: Mindfulness Community Representatives

This study provides insight for individuals who are associated with the larger mindfulness community, as it indicates that there are benefits to bringing mindfulness into education settings. Predominantly, it is essential for the mindfulness community to communicate the importance of mindfulness in education to all educational professionals. To foster involvement with schools, mindfulness instructors can either teach educators how to bring mindfulness into their classrooms, or they can teach students directly through assemblies, after school programs, or in-school workshops. Once involved, the mindfulness community also needs to educate teachers to start doing mindfulness practices at the beginning of the school year, and to maintain its consistency as a classroom routine, gradually increasing practice with the readiness of students. It is also important to teach educators a diverse range of mindfulness related activities, so it can be adapted to classrooms with differing amounts of space, and continue to promote student interest. Finally, if mindfulness community representatives are given the opportunity to work with students directly, they have an opportunity to impart their passion and knowledge to students without translation. This may result in a more meaningful experience for students, as they are able to learn both directly and indirectly through an instructor who exudes mindfulness from their personal practice.

5.2.4 Narrow: Myself as a Teacher-Researcher

As a teacher-researcher who has interest in mindfulness, the implications of this
study's findings hold positive meaning for me. During my experiences in classrooms, as both a student and teacher, it has been apparent that providing extra support for all students has been a challenge for teachers to enact on a regular basis. The findings of this study denote that all the individuals who were interviewed maintained a consensus that mindfulness promotes many beneficial outcomes within the classroom setting. Mindfulness has been demonstrated to be a cheap, if not free, resource that can provide extra support for students with and without learning disabilities. In this way, mindfulness can essentially be understood as a commodity that furthers the ability of instructors to teach life skills, engage their students in lessons, and create an inclusive classroom community. I thus believe that this is something that will provide me with a true and long-lasting ability to give extra support to each of my students consistently throughout my career.

5.3 Recommendations

The findings of this study give rise to numerous recommendations that pertain to the incorporation of mindfulness into education settings. The value of mindfulness should be emphasized to teachers, as well as to students and parents. Alongside classrooms practicing mindfulness, mindfulness can be offered as workshops or extra-curricular programs, for students or parents who wish to further pursue their own practices. School workshops that welcome parents can also strengthen the relationship between schools and the parental community. In these workshops, parents can receive information to clarify what mindfulness is, and dispel any myths that they may harbor about its practice.

Teachers who wish to bring mindfulness into their classrooms must begin to
incorporate it slowly early on, and increase its practice throughout the school year in accordance with student readiness. Mindfulness practice will take time and commitment to become fully integrated into the classroom routine. For example, an instructor can begin with practicing mindfulness once a week, and expand toward multiple activities per week once it his class has been familiarized with the practice.

For mindfulness to work in the classroom, teachers must believe in its power themselves. Mindfulness cannot be introduced as a gimmick, or the students in the class will not accept it. In some cases, a teacher who is successful in bringing mindfulness into their classroom maintains their own practice outside of the realm of education. Students should also be educated about the functions of the brain that mindfulness affects, and that acting upon impulse is a normal reaction to stress, but it does not always have to control the decisions they make. This combination will maximize student acceptability and foster engagement with its practice.

5.4 Areas for Further Research

Further research should center on the experiences of different teachers that currently incorporate mindfulness into the classroom, along with the long-term effects of mindfulness practice on students. It is important to consider that different communities and schools may put forth different experiences and interpretations on how mindfulness can and should be integrated into an education settings. To expand on this, further research should be conducted into the different experiences teachers have in different school boards and community demographics, to see if there are different zone-related limitations or barriers that they may encounter when creating a classroom practice, as well as how they have overcome them.
Another area of interest can also involve novel ways that teachers can use to incorporate mindfulness into their classrooms. There are many different methods that can be used within this setting, and these should be explored in greater depth. One facet of this may include how instructors integrate mindfulness into different curriculum areas of their schedule. Furthermore, research can also investigate what types of mindfulness exercises are best used in different class settings and demographics.

As this study solely focused on the general student population and those with ADHD, additional research can be conducted to investigate how mindfulness can be used to support students with other mental health difficulties and learning challenges. Longitudinal research can also be conducted to supplement this study, to determine the long-term effects of mindfulness on students with ADHD. This will provide understanding as to whether mindfulness is truly a constructive solution for supporting students with ADHD in a long-lasting way. Finally, future research can be used to indicate what percentages of students maintain their practice of mindfulness in their own lives outside school after learning it in a classroom setting.

5.5 Concluding Comments

As there has been a surge of responsibility for teachers and schools to support a student population with increasing numbers of mental health difficulties and learning disabilities, there has been an accumulated need for something extra to safeguard the student body. Mindfulness is an inexpensive resource that all schools can easily have access to that has boundless benefits for a school’s teachers, students, and administrators. With the proper education of teachers, students, and the parent community, mindfulness can be enacted to pave the way for a future of teacher and student success in all areas of
MINDFULNESS AS RESPONSIVE PEDAGOGY FOR STUDENTS WITH ADHD

education.
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Appendices

Appendix A: A Letter of Consent for Interview:

Date:

Dear _______________________________,

My name is Jamie Harssar and I am a graduate student in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on how a sample of elementary teachers is using yoga and meditation to foster mindfulness, and what outcomes do they observe from students with ADHD. I am interested in interviewing teachers who have completed training in a mindfulness course, incorporate mindfulness practices of yoga and meditation in the classroom on a regular basis, and have experience enacting mindfulness practices with students with ADHD. I think that your knowledge and experience will provide insights into this topic.

Your participation in this research will involve one 45-60 minute interview, which will be transcribed and audio-recorded. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time. The contents of this interview will be used for my research project, which will include a final paper, as well as informal presentations to my classmates. I may also present my research findings via conference presentations and/or through publication. You will be assigned a pseudonym to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. Any information that identifies your school or students will also be excluded. The interview data will be stored on my password-protected computer and the only person who will have access to the research data will be my course instructor Dr. Angela MacDonald-Vemic. You are free to change your mind about your participation at any time, and to withdraw even after you have consented to participate. You may also choose to decline to answer any specific question during the interview. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data has been collected. There are no known risks to participation, and I will share a copy of the transcript with you shortly after the interview to ensure accuracy.

Please sign this consent form, if you agree to be interviewed. The second copy is for your records. I am very grateful for your participation.

Sincerely,

Jamie Harssar
(647) 542-8393
jamie.harssar@mail.utoronto.ca

Course Instructor’s Name: Dr. Angela MacDonald-Vemic
Contact Info: angela.macdonald@utoronto.ca

Consent Form
I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw from this research study at any time without penalty.

I have read the letter provided to me by _____________ (name of interviewer) and agree to participate in an interview for the purposes described. I agree to have the interview audio-recorded.

Signature: ______________________________________

Name: (printed) ___________________________________

Date: ______________________________________
Appendix B: Interview Protocol

Thank you for agreeing to participate in this research study, and for making time to be interviewed today. This research study aims to learn how a sample of elementary teachers is using yoga and meditation to foster mindfulness, and what outcomes do they observe from students with ADHD. This interview will last approximately 45-60 minutes, and I will ask you a series of questions focused on your experiences with incorporating mindfulness into your classroom. I want to remind you that you may refrain from answering any question, and you have the right to withdraw your participation from the study at any time. As I explained in the consent letter, this interview will be audio-recorded. Do you have any questions before we begin?

Section A – Background Information

1. What is your current position?
   a. What grade are you currently teaching? Which have you previously taught?
   b. In addition to your role as a teacher, are there any other roles that you fulfill within the school (i.e. advisor, coach, resource teacher, etc.)?

2. How long have you been working as a full-time teacher?

3. Can you describe your school and the community in which it is situated (i.e. size, demographics, program priorities, etc.)?
   a. How long have you taught in this school?
   b. Is there a high number of students with special needs at your school? In your current classroom? What kinds of supports are available for students with special needs at your school?
   c. How common is it for you to have students in your class who have been diagnosed with ADHD? And undiagnosed? What have you observed in
terms of these students’ symptoms and needs?

4. Do you have any formal training in special education? If yes, what training do you have? (e.g. additional qualifications, professional development)

5. When we spoke about your participation in this research, you confirmed that you have experience with mindfulness training. Can you tell me more about the training you have?
   
   a. What is a specific course / certification?
   
   b. What practices were prioritized in your training (e.g. yoga, meditation, body scans, mindful eating etc.)

6. How did you become interested in mindfulness practice? What personal, professional, or educational experiences informed your interest in it, and helped prepare you to enact it in your classroom teaching with kids?

7. Do you enact mindfulness practices in your everyday life? If so, what do you do? Why do you practice mindfulness? What benefits have you experienced from it?

Section B – Teacher Perspectives/Beliefs

8. What does mindfulness mean to you?

9. Why do you believe mindfulness practices have a role to play in schools and in learning? What do you believe are the benefits of mindfulness practice for students?

10. Are there particular mindfulness practices that you think are particularly beneficial for students/children? Which ones and why?

11. You mentioned to me when we spoke about this research that you have a commitment to enacting yoga and meditation in the classroom in particular.
a. Why is teaching yoga a part of your teaching practice?

b. And meditation?

12. In your view, are mindfulness practices common in schools? What have you observed about the implementation of mindfulness in schools?

13. In your view, do mindfulness practices have any drawbacks within the classroom? If so, what would you say they would be?

Section C – Teacher Practices

14. What range of mindfulness practices do you enact in your teaching practice?

15. Do you enact these with your own students or with students and staff in the school more broadly?

16. How often do you enact mindfulness practices within the classroom?
   a. On an everyday level?
   b. Weekly?
   c. Monthly?

17. Is there a particular time of day when you do yoga or meditation with students? If so, when is it and why? If not, why not? Have you observed any difference in how students respond to the activities depending on the time of day?

18. Is your implementation of mindfulness practices usually planned, or do you sometimes implement these practices in response to the events of the day, or the classroom climate on particular days?

19. In what ways, if at all, do you connect mindfulness practices to the formal curriculum?

20. How do you understand the relationship between the curriculum and mindfulness
What resources support you in enacting mindfulness practices in your teaching?

(***listen, then probe re: physical space, yoga mats, websites, technology, videos, music, bell, etc.)

22. How do students typically respond to these practices?
   a. What outcomes have you observed from students?
   b. What outcomes have you observed from your students who are diagnosed with or exhibit symptoms of ADHD?

23. Can you relay some examples of how you have seen mindfulness practices have an impact on students with ADHD? ***probe for specific examples re: particular students, their symptoms/needs, the practice and their response
   a. Are these students generally receptive towards mindfulness activities?
   b. What do they do when the rest of the class is participating in these activities?
   c. Are they engaged in the same way as their classmates who do not have ADHD? Describe some observations you have made.

24. In what ways do you feel that the students in your class who have ADHD are benefitting from these mindfulness exercises? Why or why not, and how?

25. In your view, what types of mindfulness activities are most helpful in supporting the needs of students with ADHD?

26. Do the students ever practice mindfulness on their own time in the classroom, or only when instructed?

Section D – Supports and Challenges
27. Are there other school-wide mindfulness programs or activities that the student body is encouraged or required to partake in?

28. What factors and resources within your school support you in your teaching of mindfulness practices?

29. What would you say are the biggest challenges with incorporating and implementing mindfulness practices into your classroom? How do you respond to these challenges?

30. In your experience, are colleagues, administrators, and parents receptive to these practices?

Section E – Next Steps

31. What, if any, are your goals when it comes to the implementation of mindfulness practices in schools?

32. What recommendations do you have for how the school system can further support the implementation of mindfulness practices in schools?

33. Do you have any advice for teachers who are committed to incorporating mindfulness practices into their classrooms?

Thank you for participating in this research study.