Teacher Perceptions of Mindfulness in Education

By

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Abstract

This research study explores teachers’ perceptions of mindfulness interventions in Toronto classrooms. As mental health education gains greater priority in Ontario schools, mindfulness has taken the forefront as one of the key approaches of addressing student well-being. Through face-to-face interviews, I was able to collect information from three teachers utilizing mindfulness in their classrooms and their beliefs around the strengths and weaknesses of mindfulness for student well-being. The interview process elucidated that all teachers felt mindfulness would benefit the emotional regulation of their students and would contribute to students’ abilities to achieve relaxation and to strengthen cognitive skills such as listening and focus. The challenges of utilizing mindfulness in the classroom included the limited time and place for mindfulness implementation within the curriculum and academic day and the greater need for mindfulness teacher training in order to effectively transmit mindfulness pedagogy in a meaningful way.

Key words: Mindfulness, Well-being, Mental health, Education, Teaching
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>1</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>2</td>
</tr>
<tr>
<td>Chapter 1: Introduction</td>
<td>7</td>
</tr>
<tr>
<td>1.0 Introduction</td>
<td>7</td>
</tr>
<tr>
<td>1.1 Research Context</td>
<td>7</td>
</tr>
<tr>
<td>1.2 Research Problem</td>
<td>10</td>
</tr>
<tr>
<td>1.3 Purpose of the Study</td>
<td>11</td>
</tr>
<tr>
<td>1.4 Research Questions</td>
<td>11</td>
</tr>
<tr>
<td>1.5 Background of the Researcher</td>
<td>12</td>
</tr>
<tr>
<td>1.6 Overview</td>
<td>13</td>
</tr>
<tr>
<td>Chapter 2: Literature Review</td>
<td>14</td>
</tr>
<tr>
<td>2.0 Introduction to the Literature Review</td>
<td>14</td>
</tr>
<tr>
<td>2.1 Definition of Mindfulness</td>
<td>14</td>
</tr>
<tr>
<td>2.2 Science of Mindfulness</td>
<td>15</td>
</tr>
<tr>
<td>2.3 Mindfulness in Education</td>
<td>17</td>
</tr>
<tr>
<td>2.4 Current State of Research</td>
<td>19</td>
</tr>
<tr>
<td>2.4.1 Mindfulness-based stress reduction</td>
<td>20</td>
</tr>
<tr>
<td>2.4.2 Mindfulness and social emotional learning</td>
<td>23</td>
</tr>
<tr>
<td>Section</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>2.4.3 Mindfulness-based cognitive therapy</td>
<td>25</td>
</tr>
<tr>
<td>2.4.4 Mindfulness and special education</td>
<td>26</td>
</tr>
<tr>
<td>2.5 Limitations</td>
<td>27</td>
</tr>
<tr>
<td>2.6 Conclusion</td>
<td>28</td>
</tr>
</tbody>
</table>

Chapter 3: Methodology | 30 |
| 3.0 Introduction to Research Methodology | 30 |
| 3.1 Research Approach and Procedures | 30 |
| 3.2 Instruments of Data Collection | 32 |
| 3.3 Participants | 33 |
| 3.3.1 Sampling criteria | 34 |
| 3.3.2 Participant recruitment | 35 |
| 3.3.3 Participants biographies | 36 |
| 3.4 Data Analysis | 37 |
| 3.5 Ethical Review Procedures | 38 |
| 3.6 Methodological Limitations and Strengths | 40 |
| 3.7 Conclusion | 41 |

Chapter 4: Findings | 42 |
| 4.0 Introduction to Interview Findings | 42 |
| 4.1 Teachers Reasons for Mindfulness Implementation | 43 |
4.1.1 Student emotional regulation 43
4.1.2 Teacher stress and anxiety 45
4.1.3 Student relaxation 47
4.1.4 Academic improvement through listening and focus 48

4.2 Teacher Perceptions of Mindfulness Strategies 50
4.2.1 Meditation-based impacts 50
4.2.2 Movement-based strategies 52
4.2.3 Moments of stillness 54

4.3 Barriers that Teachers Face Using Mindfulness in the Classroom 55
4.3.1 Behavioral barriers 56
4.3.2 Curriculum restrictions 57

4.4 Summary of Findings 59

Chapter 5: Implications 62
5.0 Introduction to the Research Implications 62
5.1 Overview of Key Findings and their Significance 62
5.1.1 Emotional regulation as main goal of practice 63
5.1.2 Teacher’s value for mindfulness 64
5.1.3 Academic success and mindfulness correlation 64
Remains Inconsistent
5.1.4 Informal and formal meditation techniques were valued 65
5.1.5 Curriculum implementation supports mindfulness programming

5.2 Implications for Integrating Mindfulness in Toronto Schools

5.2.1 Broad: the educational research community

5.2.2 Narrow: professional identity and practice

5.3 Recommendations

5.4 Areas for Further Research

5.5 Concluding Comments

References

Appendix A: Letter of Consent

Appendix B: Interview Protocol/Questions
Chapter One: Introduction

1.0 Introduction

The Ontario Ministry of Education’s 2007 *Finding Common Ground: Character Development in Ontario Schools, K-12* states, “a quality education includes the education of the heart as well of the mind” (p. 2). The future of education must address student needs academically but also mentally and emotionally. Mindfulness has recently surfaced as a mental health strategy to target this goal. Several school boards across Canada and the United States are beginning to implement and utilize mindfulness practices in their classrooms. Mental health initiatives associated with mindfulness work to develop student self-awareness and potential inside and outside of the classroom. The World Health Organization defines mental health as “state of well-being in which every individual realizes his or her potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (World Health Organization, 2014). The TDSB has adopted this definition in their understanding of student mental health and this research paper will work to address the ways in which teachers in Toronto are utilizing mindfulness as a mental health strategy and the benefits and drawbacks of this approach.

1.1 Research Context

Mindfulness can be defined as an awareness that emerges through “paying attention on purpose, in the present moment and nonjudgmentally to the unfolding of experience moment-by-moment” (Kabat-Zinn, 2008, p. 144). Mindfulness practices involve qualities of attention and awareness that can be cultivated and developed through meditation and meditation-like exercises.
such as yoga or Tai Chi (Baer, 2003). Mindfulness exercises encourage practitioners to focus on living moment-to-moment, to sharpen their concentration and build empathy and compassion.

In recent decades, mindfulness has reached the western world through the popularization of Indian practices such as yoga and meditation (Kabat-Zinn, 2008). Professors Askegaard and Eckhardt’s (2012) research on the reappropriation of Indian culture outlines the ways in which yoga and other traditional Indian market practices have moved from the place of origin and sanctioned in the consumer culture of the west. The authors offer six reasons for why yoga has become such a fashionable practice in the western world. The authors suggest that yoga functions as more than just a health practice but also as a resource management tool oriented towards an audience and involves aspects of cultural domination and national heritage (Askegaard & Eckhardt, 2012). The rise in the popularity of mindfulness then is partly due to the fact that many forms of mindfulness-based treatments are emerging as a result of a greater consumer demand for alternatives to western medicine and alternative ways of coping with mental health. This relatively new association between mindfulness and mental health has allowed for mindfulness programs to be implemented within school settings, with a growing number of experiments and research being recorded on its effectiveness with youth. Studies that have been conducted with adults suggest how regular meditation practices can positively influence parts of the brain that deal with stress, empathy and sense of self (Lunau, 2014). Brown University neuroscientist Willoughby Britton suggests that, “as we pay attention, the prefrontal cortex of the brain- which is responsible for higher thinking and self control- activate as we pay attention and is underdeveloped in kids” (Lunau, 2014). Mindfulness engages this part of the
brain and research is slowly developing around children in particular.

Today’s schools are increasingly multicultural and multilingual, which places a much wider array of demands and concerns on school staff (Greenberg, 2003). In order to deal with these growing demands, school boards and educational bodies all across North America have been developing programs and initiatives to try and cope with these changes. A 2012 Toronto District School Board survey of grade 7 to 12 students found that stress worsens as students attend high school.

Due to these greater demands for social-emotional learning and support, Ontario has started to develop programs and initiatives to help students. This is where mindfulness is beginning to be integrated into the TDSB mental health curriculum. The TDSB’s mental health strategies website offers teachers links to mindfulness and meditation exercises. In 2007 Premier Dalton McGuinty’s implementation of the Character Education Movement (CE) was meant to inspire and encourage compassionate and caring students. There has also been a rise in anti-stigma programs and mental health plans in education such as: Discovering Mindfulness that works with secondary and post-secondary youth to introduce them to concepts of mindfulness (Discover Mindfulness, 2010). The Ontario School-Based Mental Health Initiative has also worked to increase social emotional learning within Ontario classrooms through a program called “SMH ASSIST” (School Mental Health Assist). Another social-emotional learning program in Ontario is “SEL” (Social Emotional Learning) or “CASEL” (Collaborative for Academic, Social and Emotional Learning) and is designed for teachers as part of this initiative. Furthermore, teaching strategies in recent years have moved towards a “constructivist approach”,
which aligns quite well with the newfound desire to focus on student well-being. Constructivist teaching allows one to shift the focus of teaching from the teacher to the student and thus develop a more “student-centered approach” (Meiklejohn et al., 2011). These strategies and initiatives have helped to validate mindfulness as a tool to promote positive mental health in Ontario students.

1.2 Research Problem

The issues surrounding mindfulness-based interventions are that there is limited research with children, particularly in schools. Britton’s 2014 commentary in MacLean’s magazine on mindfulness with students notes that there “hasn’t been a single brain scan study” in regards to the impact of meditation on child and adolescent brains (Lunau, 2014). Most research that exists is relatively new and implemented in a trial form rather than as a permanent program. School-based implementation is often dependent on board initiatives to provide mindfulness training for teachers. The Vancouver Board for example, has introduced the MindUP program to teachers and students; a research-based curriculum developed by the Hawn Foundation to help students cope with stress. The Toronto Catholic District School Board has also implemented its’ own “Mindfulness Ambassadors Council” (MAC) program to train teachers that work with vulnerable students (Lunau, 2014). Although mindfulness programs in schools are developing, research on the effects of mindfulness, particularly with the youth in these Toronto schools is lacking. Few schools have explored teaching mindfulness to students and even fewer with disadvantaged and vulnerable youth (Viafora, Mathiesen & Unsworth, 2015). Another key issue surrounding the implementation of mindfulness is the inability for teachers to provide effective teaching without
practicing mindfulness in their daily lives. There remains to be little to no formal vehicle for assessing competency of mindfulness-based stress reduction teachers and little to no formal certification that is recognized universally (Kabat-Zinn, 2003). Therefore, another shortcoming of this health strategy is that not all teachers are receiving training and therefore, will not be able to properly instruct their students.

1.3 Purpose of the Study

The novelty of mindfulness and meditation programs in schools, particularly in Toronto, suggests that there is plenty of space for growth and development in the field. My goal is to understand how mindfulness has been integrated thus far, in particular, its effectiveness or ineffectiveness with youth in Toronto. Due to the nature of this study, I will be focusing on the kinds of strategies teachers perceive to work best in their classrooms. For example, the kind of programs students are more engaged in, i.e. yoga, meditation, mindful games, art etc. The last effort of this study will address teachers’ perceptions of how mindfulness implementation can be improved to generate consistent and positive effects on student well-being.

1.4 Research Questions

My main inquiry for this study was to understand the effectiveness of mindfulness as a mental health strategy in education, based on teacher’s perceptions of mindfulness in their classrooms. Consequently, how effective is mindfulness education with students in Toronto thus far and how can teachers develop their mindfulness programs further? What do teachers need in order to provide child and adolescent youth with mindfulness education that is feasible, practical and effective for all participants?
I further guided my inquiry by looking at how mindfulness is already being incorporated within Toronto schools. What resources do teachers have access to? What are the limitations to the resources and programs that already exist? How can they be improved? What does research say so far about the mental health benefits of mindfulness? What do these results potentially mean in terms of the mental well-being of students? What practices are teachers using that work best for their classrooms?

1.5 Background of the Researcher

I have been a student for the majority of my life and I understand how mental stressors are a huge part of adolescence. I also understand that learning self-regulation and coping mechanisms during adolescence can be beneficial for the remainder of one’s life. Mindfulness practices were never a tool available for me while in school. After graduating from high school, I attended the University of Toronto and completed a Bachelor in Arts and Science with a Major in English and a double minor in History and Sociology. During my undergraduate years I began practicing yoga and took a course on Buddhist Psychology, which introduced me to the concept of mindfulness. The introduction of these practices into my life has helped me to manage and understand my stress and anxiety and develop a more positive mental state. Mindful living as it pertains to my life involves being conscious of my own well-being and the well-being of others, developing awareness of my emotions, thoughts and judgments. Although being mindful is an everyday commitment, it has helped me to cultivate empathy and compassion, which has benefited me as a teacher candidate. I would like to find ways to provide an opportunity for children to be exposed to mindfulness practices and to develop mindful skills, as I strongly
believe that self-awareness and well-being should be valued just as highly as academic education. Through my own personal journey utilizing mindfulness, I am able to conclude that it will be a valuable tool for students throughout their lives.

1.6 Overview

In Chapter Two, I begin with an analysis of pre-existing literature on the subject of mindfulness in education and any prior research that has looked at mindfulness trials with Toronto youth, with a focus on studies conducted in school settings. In Chapter Three, I outline my research methodology, which will involve interviews I have conducted with teachers who use mindfulness in their classrooms as well as individuals who may run programs or workshops that teach these skills to youth. Chapter Four discusses my research findings and Chapter Five reviews the implications of these findings and the potential for further discussion and exploration based on these implications. I conclude my proposal with a list of references and notes.
Chapter Two: Literature Review

2.0 Introduction

In this chapter I review the literature on mindfulness in education. More specifically, I review themes related to mindfulness with youth in Toronto schools. I start by outlining the definitions of mindfulness. I then review the literature on the science of mindfulness, how it affects the brain and how it is quantified into scientific terms. From there, I look at mindfulness in education, particularly in Canada and what kinds of initiatives are being taken thus far. I analyze the rise of mindfulness in Ontario’s mental health curriculum and the different mindfulness programs offered to teachers and students within Toronto. Finally, I assess the current state of mindfulness research with youth, particularly in schools and the similarities and differences between studies, including potential limitations and goals for future improvements.

2.1 Definition of Mindfulness

Known as “the heart” of Buddhist meditation, mindfulness has developed predominantly through Buddhist traditions. Kabat-Zinn, Professor of Medicine and founder of the Massachusetts Center of Mindfulness in Medicine, has developed the most popular and widespread definition of mindfulness. Mindfulness is a nature of mind or awareness that emerges through, “paying attention on purpose, in the present moment and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p. 145). Ruth Baer (2003), another contemporary mindfulness scholar, aligns her definition with Kabat-Zinn’s as she states that mindfulness is “particular qualities of attention that can be developed through meditation”.
(p. 145). Baer (2003) goes on to clarify the difference between mindfulness and meditation: “mindfulness is an increased awareness of the present moment, it is the goal of meditation” (p. 77). In other words, meditation is one of the pathways to reaching a state of mindfulness. It is important to note however, that although mindfulness-based interventions predominantly utilize meditation as a leading strategy, there are several alternative methods such as yoga or Tai Chi that are employed. Literature on mindfulness repeatedly outlines the importance of attentiveness, kindness and compassion (Davis & Hayes, 2011; Meiklejohn et al., 2012; Kabat-Zinn, 2003). A more rigorous definition of mindfulness and the mental processes of mindfulness interventions are outlined by Shapiro, Carlson, Astin and Freedman’s 2006 research study. The three axioms of mindfulness developed within their research involves — intention, attention, and attitude — and notes that when these three steps are nurtured there will be a shift she calls “re-perceiving” (Shapiro, Carlson, Astin & Freedman, 2006, p. 377). Re-perceiving is defined as the ability to “deeply experience each event of the mind and body without identifying or clinging to it” (Shapiro et al., 2006, p. 379). Ultimately, there is a general consensus about the underlying components of mindfulness; it is the way in which mindfulness is cultivated that remains open to interpretation.

2.2 Science of Mindfulness

Mindfulness developed as a personal, contemplative and subjective practice. In recent years, concepts of mindfulness have been increasingly applied to scientific ideas and studies of the brain. The relatively new field of “contemplative science” provided mindfulness with an opportunity for recognition in science. “Contemplative science acknowledges the combined
efforts of experts on the brain and experts on the mind” (Meiklejohn et al., 2011, p. 5).

Furthermore, the science of neuroplasticity validates the notion that mindfulness can profoundly affect one's mental processes (Meiklejohn, 2011). Neuroplasticity states that, “changes in the mind can create changes in the brain and the brain can change in response to stimuli and experience” (Meiklejohn et al., 2011, p. 19). University of Wisconsin’s Professor of psychology R.J. Davidson states, “mindfulness has the potential to alter organization and action of neural circuitry, associated with stress reactivity and immune function” (Davidson et al., 2003, p. 1). Scientifically motivated studies point out the specifics of what mindfulness can do to the brain. A 2008 study on Psychosomatic Medicine, looks at how mindfulness modulates EEG patterns, which produces greater blood flow and thickens cerebral cortex (outer neural tissue) in areas of the brain associated with attention and emotional integration (Davidson et al., 2008). The hippocampus, a part of the brain associated with learning, memory, self-awareness and introspection, can be altered during mindfulness intervention (Hözel et al., 2011). A 2011 psychiatric research study at Massachusetts, analyzes this part of the brain and suggests that regular mindfulness practices can actually increase the grey-matter density in the hippocampus, the part of the brain responsible for emotion, memory and the autonomic nervous system (Hözel et al., 2011). Furthermore, the grey-matter density in other areas of the brain, such as the amygdala, known for stress and anxiety, can be decreased through mindfulness practices (Hözel et al., 2011). Napoli, Krech and Holley’s (2005) study suggests that breathing is an important aspect of regulating the autonomic nervous system, focusing the mind and increasing self-awareness. The authors look at the effects that stress can have on the brain and how it
subsequently affects a student’s learning experience (Napoli, Krech & Holley, 2005). Stress causes the hormone epinephrine to flood through the body, which causes the person to utilize their midbrain more, responsible for sensory processes (i.e. vision, hearing, motor control) (Napoli et al., 2005). When people become more responsive to their senses, their impulsive reactions increase and cognitive processes become less active (Napoli et al., 2005, p. 104). This theory is in agreement with other studies that note how mindfulness can, to some degree, alter neural activity and increase cortical thickness (Hözel et al., 2011). The limitations of this research in relation to this paper however, is that many of these tests have yet to be conducted on children. Therefore, much of what we know on how mindfulness alters a child’s brain is through comparison to an adult brain.

2.3 Mindfulness in Education

*Discover Mindfulness*, a non-profit organization involved in spreading mindfulness awareness to Canadian schools, addresses why the Canadian school environment is in need of mindfulness initiatives. They quote a 2006 Senate of Canada report that notes,

> Most of the mental health disorders affecting Canadians today begin in childhood and adolescence… There are a great many children and youth who are living with mental illness. It is conservatively estimated as many as 15% are affected at any given time, a total of some 1.2 million young Canadians who live with anxiety, attention deficit disorder, depression, addiction and other disorders (“Discover Mindfulness”, 2017, n.p.).

The implementation of mindfulness in Canadian schools can alter this sad reality by teaching
students how to pay attention, improve academically, reduce anxiety and develop their social-emotional learning. Ontario has taken greater care in recent years to advocate for the social and emotional well being of its’ students. The Ontario’s School-Based Mental Health Initiative is part of a universal initiative amongst Ontario school boards to provide a mental health leader responsible for cultivating social-emotional learning within the school environment. Over the past three years, the number of mental health leaders has increased from fifteen per board in 2011 to forty-two in 2013 (“Discover Mindfulness”, 2017).

The mental health and well being of Ontario students has been a primary focus of Ontario boards in recent years. Mindfulness education is one of the many places in which this kind of support is being offered to students in Ontario. Discover Mindfulness, is an Ontario-based non-profit organization whose goal is to function as a hub of information on mindfulness education and its integration in society through programs and online resources. “Mindfulness in Schools Project” is one of the many programs being offered that develops real-time lessons, pedagogy and shared teaching experiences around mindfulness. Organizations and resources that help with the integration of mindfulness into curricula are being accompanied by escalating Teacher-training courses in mindfulness being offered by post-secondary institutions. The University of Toronto, offers courses on mindful teaching which include: Mindfulness for Educators, Mindfulness Ambassadors Council Certificate Training, Mindfulness Schools and Creating a Mindfulness-Based Teaching Environment (Discover Mindfulness, 2016). Many of these courses have helped teachers to implement mindfulness effectively into their pedagogy, such as the integration of the Mindfulness Ambassadors Council with grade eleven and twelve students in
the Toronto Catholic District School Board (Smith-Carrier & Gallinaro, 2013). The University of Toronto’s Ontario Institute of Secondary Education (OISE) offers a “Mindfulness Based Wellness Education” (MBWE) program. This eight-week course for teachers-in-training has been created to address the high levels of stress and burnout that teachers experience in the early stages of their career development. Patricia Poulin, a former OISE student, conducted a study on the implications of the program. Her research concluded that participants showed improvements in mindfulness, health and teaching self-efficacy versus participants that took other courses (Poulin, 2009). Poulin (2009) also noted that the intervention was effective in reducing psychological stress and augmenting satisfaction with life.

Based on the majority of mindfulness education initiatives presented above, it is safe to say that the incorporation of mindfulness in Ontario schools has gradually been increasing. However, mindfulness integration into Toronto schools has thus far been dependent on teachers’ application of resources and program into their pedagogy or through teacher-training courses offered by teacher-training institutions.

2.4 Current State of Research

The current state of mindfulness research is one that is relatively new but increasing at a steady pace. “Mindfulness in Schools Project” outlines the focus of the majority of mindfulness studies today, which include: emotional-well being, learning and mental health (Weare, 2012). Furthermore, there are a number of widely recognized methods of mindfulness interventions that will guide the categorization of this literature review. I will analyze the current state of mindfulness research within these accepted methodologies, particularly those studies that fall
within child and adolescent educational settings.

2.4.1 Mindfulness-based stress reduction

One of the major programs that mindfulness intervention takes the form of is Mindfulness Based Stress Reduction (MBSR). MBSR is a program that was created by Jon Kabat-Zinn, Professor of Medicine and founder of the Center of Mindfulness in Medicine in Massachusetts. MBSR was designed as an eight to ten week program predominantly for people with pain and stress-related disorders. Activities in the program included body scan and seated meditation as well as hatha yoga (Baer, 2003). This program was predominantly formulated for mental health patients but has now been adopted as a more universal theory for all people. As Kabat-Zinn states, “mindfulness, being about attention, is also of necessity universal” (2003, p. 145).

MBSR has been used largely as a framework to work with stress and emotional-well being in education. A 2013 Canadian review by Tracy Smith-Carrier and Anna Gallinaro, at the University of Toronto, analyses the findings from the Mindfulness Ambassador Council (MAC) in the TCDSB on grade eleven and twelve students. The significance of this 2013 study is that it is one of the only existing evaluations of a mindfulness education implementation in a Toronto school. The program included twelve theme-based lessons with a range of strategies from mindful breathing, eating, speaking and listening to lessons on self and social awareness, relationship skills and decision-making (Smith-Carrier & Gallinaro, 2013, p. 15). The program was implemented by “Mindfulness Without Borders” a non-profit organization dedicated to providing mindfulness training and learning in a number of countries. The study revealed the top
three methods students were most likely to continue using after the program to be: mindful listening, breathing, eating and decision-making, along with relationship skills and body scan meditation (Smith-Carrier & Gallinaro, 2013). The study also found that effectiveness and connectivity to the program was poor when student attendance was poor. Overall, results displayed that students valued the program and planned to use what they had learned in their daily lives.

Scholars Patricia Broderick and Stacie Metz’s 2009 pilot study analyses the Learning to BREATHE (L2B) mindfulness program in schools. Their program involved seventeen to nineteen-year-old private school girls in the United States and was executed through the physical education and health curriculum. Learning to BREATHE is a stress management program tailored to mindfulness-based approaches with students. These approaches include helping students understand their thoughts, feelings and negative emotions (Broderick & Metz, 2009). There are six lessons built around the BREATHE acronym: body, reflections, emotions, attend, tenderness, habits and empowered. The goal of the study was to support emotional regulation skills in the students, specifically in a classroom setting. After the seven-week intervention (same length of time as the health unit) participants reported feeling decreased negativity and increased feelings of calmness, relaxation and self-acceptance (Broderick and Metz, 2009, p. 39). This study relates to Smith-Carrier and Gallinaro’s evaluation of Mindfulness Without Borders in schools as both have an intensive focus on the emotional regulation in female students and have similar findings that demonstrate a decrease in stress and increase in emotional control. However, like the MAC program that utilized an external mindfulness organization, it is unclear
whether the gains continue to persist once these programs are completed (Broderick & Metz, 2009).

Napoli, Krech and Holley conducted an earlier study in 2005 that also devised a mindfulness program within the physical education curriculum of an elementary school in the Southwestern United States. The program known as, Attention Academy Program (AAP) incorporates facilitators that have been professionally trained in mindfulness. Results showed substantial similarities to the previously mentioned studies in that students displayed significant decreases in anxiety and an increased ability to pay attention. All three of the above studies utilized randomized control trials, incorporated outside mindfulness experts and professionals and obtained parental consent. The Attention Academy Program also used the health curriculum as a means of including mindfulness in the student learning process.

David Viafora, Sally Mathiesen and Sara Unsworth’s 2014 research highlighted the lack of mindfulness scholarship conducted on middle school students and homeless youth. Their research employed The Meditation Initiative (TMI), a collaborative organization that would teach seventh and eighth grade students mindfulness techniques. The total study took sixty-three participants. The first group involved students who were currently living or had lived in a homeless shelter, the second two groups were from traditional classrooms and the fourth group did not receive mindfulness training in order to function as a control group in the study (Viafora, Mathiesen & Unsworth, 2014). The results reported that middle school homeless youth actually had a higher application of mindfulness in their daily lives compared to non-homeless youth, suggesting that mindfulness was embraced by youth struggling with not only social and
emotional but also economic and geographic anxieties.

California Doctor’s Amy Saltzman and Philippe Goldin have generated an eight-week MBSR program for children. Saltzman’s expertise in mindfulness with children and their parents along with Goldin’s mindfulness research background, allowed them to generate a course that was largely based around Kabat-Zinn’s MBSR program by shortening the meditation sessions and incorporating mindful eating (Rempel, 2012). Through their collaborative efforts they devised a curriculum called “Still Quiet Places.” The “quiet place” is something that everyone has: “The best thing about your ‘still quiet place’ is that it’s always inside you. And you can visit it whenever you like” (Saltzman & Goldin, 2008, p. 142). This program was designed for children eight years old and up and lasts for eight weeks. Their findings concluded that children and parents developed an increased ability to focus attention, generate greater positive emotions, self-judgment and self-compassion. However, researchers also found that cognitive control, which is linked to academic success, was the last variable to reach maturity throughout the program (2008, p. 155). These results suggest that not only are social-emotional improvements obtainable with mindfulness but that academic learning can be improved if intervention remains persistent. One thing that did not change throughout the study was the children’s view of themselves. It was also shown that children worked better with formal practice, which is aligned with Baer and Semple’s recommendation that mindfulness must be repetitive and structured for children to make meaningful progress (Saltzman & Goldin 2008, p. 156).

2.4.2 Mindfulness and social emotional learning

Mindfulness Based Stress Reduction can also be aligned with another mental health
initiative in education known as SEL or Social Emotional Learning. SEL is part of the Ontario’s School-Based Mental Health Initiative and is geared towards teaching students a set of skills to help regulate emotion and conflict (Davis, 2015). The MindUP program is a SEL-based teaching model and curriculum for children from kindergarten to grade 8 (Schonert-Reichl and Hymel, 2007). These programs are currently used in the Vancouver School Board and exemplify how mindfulness can be easily integrated into classrooms through social-emotional learning initiatives. The ME (Mindfulness Education Program) is a teacher-taught social and emotional competence program in which students are engaged in mindfulness training three times daily (Schonert-Reichl and Lawlor, 2010). The program began by training voluntary teachers in mindfulness strategies and was designed to demonstrate optimism and positive behavior in students (Schonert-Reichl & Lawlor, 2010).

The Canadian Education Association’s 2007 study on Social Emotional Learning outlines the approaches to student mental health in education that are being made across school boards. After the Vancouver School Board’s plan to address the teachings of social responsibility in the classroom the Ontario government begun to integrate SEL into the education curriculum as well (Schonert-Reichl & Hymel, 2007, p. 22). In 2007 Premier Dalton McGuinty announced a two million dollar initiative to inspire students to become “caring, contributing and compassionate citizens” (p. 22). This became referred to as the Character Education Movement (CE) and is aligned with SEL programs. Ultimately, SEL initiatives have sparked an intense focus on student well-being that has ultimately enhanced and supported the mindfulness approaches used in schools.
2.4.3 Mindfulness-based cognitive therapy

Another area of study involves a Mindfulness Based Cognitive Therapy (MBCT) approach. Segal, Teasdale, Williams and Gemar devised MBCT through an integration of Mindfulness Based Stress Reduction and cognitive-behavioral therapy techniques for depression patients (Rempel, 2012). Although MBCT was primarily devised to treat adults coping with depression, some doctors and researchers have adopted this practice with children. Baer suggests that there are three key differences when utilizing MBCT with children: repetition, variety and active participation (Baer, 2006).

Randye Semple’s pilot study utilizes proponents of the MBCT model to prove its feasibility with children. Semple’s study selected students between the ages of 9 and 12 (grades 4 to 6) with academic difficulties. Results showed preliminary support for MBCT as children and parents reported reductions in anxiety and behavioral problems compared to those who had not partaken in the study. This was one of the preliminary studies conducted on children using MBCT.

Another study conducted by Lisa Flook and colleagues from the University of California suggests that cognitive learning was developed through mindfulness methods (Flook, 2010). Along with Baer’s suggested methodology, Flook used an array of activities that were meant to be short-term and keep the students from losing interest. The children would start in a seated meditation and move into an interactive activity, ending with a body scan meditation.

Meiklejohn et al. argues that mindfulness is a part of an “inclusive” education and must be included in the “teacher process” (2011, p. 7). This teacher-centered approach to mindfulness
aligns with scholarly studies that have utilized teacher-noted behaviors to determine student progress (Schonert-Reichl & Lawlor, 2010; Mendelson et al., 2010; Semple et al., 2005, Napoli et al., 2005) (Meiklejohn et al., 2011).

2.4.4 Mindfulness and special education

The last set of mindfulness studies involve students who exhibit special needs in their academic and home lives. “Meditation on the Soles of the Feet” is a mindfulness program that was used by Virginia scientist Nirbhay Singh, on his 2003 study for grade seven boys with high levels of aggression and autism. “Meditation on the Soles of the Feet” was designed to help regulate the urge to be physically or verbally aggressive by teaching participants to plant the soles of their feet firmly on the ground when they felt angry and to dilute that angry attention by shifting focus on the soles of the feet (Singh, 2006, p. 1). The results of this study suggested that mindfulness strategies could relax aggressive behavior in students and generate better focus and sleep patterns (Rempel, 2012).

Further studies that involve children with learning and behavioral needs includes Developmental Psychologist Susan M. Bogels from the University of Amsterdam’s and her 2008 study on mindfulness ADHD diagnosed youth. Bogels study found a significant increase in attention, happiness and awareness post-mindfulness intervention (Weare, 2012, p. 9). Integrative Psychiatrist Lidia Zylowska and colleagues conducted a 2008 study at the University of Los Angeles on children with ADHD. Zylowska utilized a program known as “MAPs”, which is a mindfulness training program adopted from Kabat-Zinn and Segal to meet the unique challenges of ADHD patients (Zylowska et al., 2007). The results of her study concluded that
mindfulness was able to improve anxiety and depressive symptoms in ADHD children; eighteen of the 23, (78%) of “participants reported a reduction in their total ADHD symptoms” (Zylowska et al., 2007, p. 6). Although several of these studies involve the treatment of a learning or behavioral need in children and were not conducted in schools, they demonstrate the benefits of mindfulness and the potential for these interventions to be implemented in school settings where students struggle with similar diagnoses.

2.5 Limitations

The results of the majority of the studies summarized above suggest a strong support for the use of mindfulness in schools. However, many of the studies shed light on some of the issues associated with mindfulness as a mental health approach in education. There has yet to have been a unanimous agreement on the best and most efficient ways of implementing mindfulness in schools. Rempel’s literary review notes that mindfulness programs need to involve the whole school, be cost-effective and preventable rather than remedial (2012). Not all schools have the resources or means to put mindfulness programs into effect and most studies conducted thus far are weak in their methods of measurement and follow-up (Remple, 2012).

Mindfulness research that has been conducted to date concentrates heavily on participant experience over other contributing factors. Viafora et al.’s 2015 study on mindfulness with homeless youth outline how there is a “lack of empirical evidence which demonstrates the teacher’s influence; rather, emphasis is placed on the curricular ingredients of intervention and client populations” (p. 1189) and recommend that mindfulness studies need more observation of mindfulness teacher qualities that generate positive results in students and patients (2015).
Teacher perceptions of the mindfulness process have a great impact on the methods employed and students’ reception of the techniques used.

Additional limitations include the relatively small number of mindfulness studies that have attempted to center on particular individual needs. Viafora et al. (2015) state that a greater attempt needs to be made towards mindful training that is modified to specific needs such as anger and stress. Shapiro et al. (2006) *Mechanisms of Mindfulness* and Viafora et al. (2015) suggest that components of mindfulness need to be dismantled and assessed separately. Viafora et al. (2015), Baer (2003), Shapiro (2006) and several other scholars have concluded that small samples sizes are also an issue within mindfulness studies that impact the ability to isolate specific components. Larger sample sizes would allow for greater investigation into the types of strategies that work best.

The greatest limitations of mindfulness initiatives in education arise from the inherent subjectivity of the mindfulness process. Due to the utter subjectivity of mindfulness interventions it is also inherently challenging to evaluate mindfulness teachers. Kabat-Zinn (2003) addresses this shortcoming, “mindfulness, from our point of view, cannot be taught to others in an authentic way without the instructor’s practicing it in his or her own life” (p.149). There remains to be little to no formal means of assessing those providing mindfulness treatment and there needs to be better ways to evaluate those who complete training programs.

### 2.6 Conclusion

Mindfulness education is largely a result of efforts between mindfulness organizations, parents, teachers and administrators. Current research thus far suggests that to yield the best
results students should be given short and repetitive formal practices on a regular basis. This review elucidates the extent to which mindfulness training and programs have been implemented with youth thus far and with a focus on education and teacher perceptions. The review points to the need for further research in Toronto and more rigorous focus within the implementation of these studies and the empirical data collection of mindfulness teachers and their strategies. In light of this, my research attempts to discover how mindfulness education is being used in Toronto schools and what do teachers perceive to be the benefits and drawbacks of these programs.
Chapter Three: Research Methodology

3.0 Introduction

In this chapter I describe my research methodology. I commence by reviewing the approaches and procedures of my research and the importance of qualitative methodology to my study and decisions throughout the research process. I include the instruments of my data collection and elaborate on the participants of my study, including the sampling criteria and recruitment processes. I then proceed to outline data analysis procedures as well as ethical review procedures. In conclusion, I discuss the limitations of my methodological framework while also highlighting the strength of the research process pertaining to my topic.

3.1 Research Approach and Procedures

This research study will be conducted using qualitative research methods. These methods involve a literature review and semi-structured interviews with teachers.

In Qualitative Research Reports in Communications 2007 publication, qualitative research is defined as, “primarily concerned with understanding human beings’ experiences in a humanistic, interpretive approach” (Jackson, Drummond & Camara, 2007). Qualitative research can generally be identified as any type of research that wishes to make sense of people in their natural settings and the meaning that people bring to these settings. Jackson, Drummond and Camara address how qualitative research has often been undermined by quantitative studies and that scholars have always argued that this is due to the differing epistemologies both methods present (2007). Both forms of research involve some degree of interpretation and the desire to acquire new knowledge; it is the type of interpretation and the ways in which both fields acquire
knowledge that differs.

Robert Stake, a professor in the field of educational assessment makes three major distinctions between qualitative and quantitative research in his book “Qualitative Research Studying How Things Work.” These distinctions include: explanation and understanding as the purpose of inquiry, distinction between a personal and impersonal role for the researcher and knowledge discovery and knowledge construction (Stake, 2010). Thus, qualitative research works towards the understanding of human behaviors or principles, in which the researcher takes up a personal interest and cultivates meaning from the knowledge they themselves gather through personal means. The concept of research itself relies heavily on interpretation, whether that be qualitative or quantitative and almost all research, to some degree, utilizes both methods. Roger Jones’ (1995) article on “Why Do Qualitative Research?” outlines the important elements that qualitative studies bring to health and medical fields. He argues that qualitative methods understand the range of ways to interpret the world and are more concerned with discovering meaning seen by those being researched rather than uncovering new facts. Jones provides the example of a qualitative study that tries to understand why quantitative results have not been implemented in a clinical practice (1995). Ultimately, there needs to be a dialogue between both traditions to enrich research understanding and development.

This study involves the interpretation of teacher and student experiences with mindfulness in the classroom. The nature of qualitative research makes it an appropriate fit for this study, as I have observed and interacted with a small community of Toronto teachers about their usage of mindfulness with students. I will be addressing how teachers understand and
implement mindfulness within their classrooms and how they feel about the preparation, process and results of these implementations.

3.2 Instruments of Data Collection

Semi-structured interviews will be the main instrument of data collection for this study. In qualitative studies interviews are one of the most common methods used as they allow for a personal experience between the researcher and participant and a chance for the participant to share knowledge and opinions they may have on a particular topic. Stake summarizes the importance of interviews for qualitative studies as; providing unique information held by the person being interviewed, collecting numerical aggregation of information from several interviews and discovering a particular point that the researcher would have otherwise been unaware of without the participants expertise (2010). Thorne characterizes qualitative data collection and analysis as pertaining to subjective experiences within a social context, i.e. the experiences of teachers and students in Toronto using mindfulness in their classrooms (2015). Furthermore, Thorne states that data collection through qualitative methods will reveal knowledge about how people think and feel, rather than uncovering or explaining a truth or fact (2015). For this study, I will rely heavily on interviews to uncover teachers’ thoughts and feelings about mindfulness.

Generally, semi-structured or unstructured interviews are the preferred and more widely accepted interview framework in which qualitative research operates. Jackson, Drummond and Camara explain that using semi-structured interviews allow for more flexibility during the interview process and allow for themes to emerge naturally (2007). I chose to conduct my
interviews in a semi-structured format as they allowed participants to share their knowledge and experience on mindfulness within a framework that guides them with prompts and allows for open-ended responses. My interviews were semi-structured, as the time and location were predetermined. I provided a list of predetermined questions that although are not essential to the interview, provided some scaffolding and allowed for other potential questions to arise. I began my interviews by asking teacher participants about their backgrounds and followed up with perspectives and beliefs they hold about mindfulness, practices they use in their classroom, challenges that arise through classroom implementation and future steps or goals related to mindfulness education. Examples of questions include:

- When were you first introduced to mindfulness and what were your impressions of mindfulness strategies?
- What specific mindfulness practices do you use on a daily basis with your students?
- What challenges have you encountered while teaching mindfulness to your students?

I hope that a semi-structured interview format will allow for new knowledge to unfold naturally that I would otherwise be unable to attain and will answer questions that were left unaddressed in the literature review.

3.3 Participants

Qualitative research relies heavily on participants (Jackson, 2007). Morses’ theory on qualitative research suggests that one must synthesize a portrait of the phenomenon by linking aspects and drawing connections between data collected (Thorne, 2015). It is important to establish criteria and framework for the participants of this study, in order for there to be
cohesive understanding that will allow for a portrait to be synthesized. Here I will outline the sampling criteria I established for participant recruitment and involvement in the interview process as well as a section to introduce my participants and their backgrounds.

3.3.1 Sampling criteria

For my teacher participants, the following criteria was applied in order to ensure that participant experiences were relevant and vital to this study:

1. Participants utilize mindfulness in their own lives.
2. Participants have more than one-year experience teaching mindfulness in a Toronto school.
3. Participants are employed in a Toronto school board.
4. Participants are actively incorporating mindfulness in their school as a whole, within individual classrooms or as part of a workshop/after-school project.

Due to the narrow focus of this study, it was necessary that all participants meet the above requirements to ensure data results are comparable and relevant. Participants were experienced with incorporating mindfulness into their own lives and had been teaching mindfulness for over a year, to ensure that they supported and utilized mindfulness as a permanent teaching strategy. It was also essential for the participants to belong to a Toronto school board as the study confines itself to the urban Toronto student and teacher experience with mindfulness and the relevance of mindfulness to a Toronto students’ well being. Lastly, participants were well versed in diverse mindfulness strategies in order to provide meaningful and informing responses about what strategies work best and what strategies are challenging. Finally, I interviewed teachers who use
mindfulness with their schools as a whole, in their individual classrooms and as part of mindfulness programs being implemented within the school to generate a wider array of responses.

3.3.2 Participant recruitment

There are several sampling recruitment procedures that can be utilized in a qualitative study. The three main sampling techniques used by qualitative researchers are convenience, purposeful and theoretical sampling (Oppong, 2013). Convenience sampling occurs when researchers select the most accessible subjects for participation (Oppong, 2013). This is the least common form of sampling as although it is least demanding, the randomized sample group can often yield inefficient and irrelevant results to the study at hand. The focus of this study is narrow and deals with a subject that is particularly new and developing within the educational field, therefore convenience sampling was not the best approach. Another form of qualitative sampling is a theoretical approach. Theoretical sampling is suitable when researchers have developed their own explanations on emerging data and want to test these theories on a sample population (Oppong, 2013). The objective and methodology of this study is mainly to add to or comment on preexisting discourse in a particular educational field rather than generate new theories and data. Therefore, the theoretical framework is not particularly suitable for the parameters of this study. The purposeful approach however, is a method in which the researcher selects subjects who have experience and knowledge of the issue at hand (Oppong, 2013). This is the most common form of qualitative sampling and was most practical to employ in this study. I used purposeful sampling by selecting my participants based on a list of criteria I had developed.
(sampling criteria). I also utilized “snowball sampling” as a tool to select my participants. Snowball sampling involves utilizing existing participants or subjects to recruit further participants that would be relevant to the study (Oppong, 2013). I have used snowball sampling by contacting a teacher participant who incorporates mindfulness in her high school classroom and has further connected me with a teacher that runs the Mindfulness without Borders program at her school.

Ultimately, the sampling procedures and recruitment for this study utilized a purposeful approach. I employed my knowledge of mindfulness education gained from attending workshops, programs in schools and from the existing literature review to inform my choices and the selection process of my participants.

3.3.3 Participant biographies

The first participant was a teacher working for the Toronto Catholic District School board in downtown Toronto. This teacher had over twenty-seven years of professional teaching experience and is currently the librarian at an all-girls’ Catholic high school. Her introduction to mindfulness began in the early 80’s when her husband trained to become a meditation instructor. Following her introduction to mindfulness, she began to take sessions on her own and has now incorporated it into the school and various classroom settings. Her responsibilities at the school range from library administrative duties, leading student success initiatives and implementing mindfulness into the religion classrooms with another fellow teacher.

The second participant selected in this study was a first grade teacher in the Toronto District School Board. This participant has taught in a variety of primary and junior classrooms
and has been integrating mindfulness into her teaching practices since the beginning of her career. Mindfulness was first introduced to her through Tai Chi and meditation as a youth and she began utilizing it with her students when she was able to reach out and connect with other teachers that practiced. She has over ten years experience as a teacher in the TDSB with kindergarten to grade six students.

The last participant was a Toronto District School Board teacher currently on leave, who now runs her own yoga and mindfulness company. This participant was introduced to mindfulness through yoga and is a fully certified yoga instructor. She has utilized mindfulness in her kindergarten classroom as a TDSB teacher through the implementation of yoga and other breathing activities. She then decided to take a leave of absence from the teaching profession to start her own yoga company that provides yoga classes and sessions for adults and youth. She continues to maintain a relationship with several TDSB schools by implementing mindfulness and yoga in after-school programs with students.

3.4 Data Analysis

Analysis within a qualitative study is what occurs after the data collection, which for an interview involves conducting and transcribing the interview into a form that can be analyzed (Jackson, 2007). Data analysis in a qualitative study usually involves inductive reasoning to interpret structure and generate meaning from the data (Thorne, 2015).

Qualitative data analysis is essentially limitless as it examines subjective experiences and requires interpretation that ultimately can lead to a multitude of avenues and perspectives. Thorne provides a list of theoretical lenses in which one can approach their data analysis in a
qualitative study. These analysis strategies include: a constant comparative approach, phenomenological approach, ethnographic approach and narrative approach (Thorne, 2015). Due to the limitation of my data collection to three interviews, I will rely heavily on a constant comparative analysis. A constant comparative analysis is one in which interviews and statements are compared and contrasted to find relations, differences and patterns within human experience (Thorne, 2015). I will be investigating the different experiences of each participant as contributing to the overall discussion about mindfulness in education within my research. I will also be examining how each participant’s responses interact with each other as well as with pre-existing discourse outlined in the literature review.

I implemented data analysis procedures that involved transcribing the interviews and then categorizing and identifying different themes. I also employed a participant check-in and review process (Jackson, 2007). This allowed participants to examine the transcribed material to ensure that their statements have not been subjected to any improper interpretations and that the analysis reflects their true values and beliefs. A participant check-in tool is an important part of the data analysis process as it facilitates objectivity, rigor and ethical diligence (Jackson, 2007).

3.5 Ethical Review Procedures

In order for qualitative studies to meet the needs and goals of the research one must take caution and employ the principles of autonomy, beneficence and justice as ethical guides (Orb, Eisenhauer and Wynaden, 2000). Ethical dilemmas in qualitative research typically evolve in one of three ways: the effect a researcher-participant relationship has on data, the researchers subjective interpretations of data and the researcher's subjective interpretations of the design
itself (Orb et. al., 2000). In this particular study, the potential for ethical dilemmas to arise were negated by the usage of autonomy, beneficence and justice throughout the sampling process all the way to data analysis procedures. I commenced by providing my participants with a formal letter of consent, outlining the structure and purpose of the interview, along with the ethical standards and principles. The letter included the confidentiality, consent and privacy standards of the study. All participants and names mentioned in the interview were assigned a pseudonym and participants were notified of their right to withdraw from involvement in the study at any stage of the research process. Furthermore, I minimized ethical risks by providing participants with a copy of the research questions beforehand. This allowed participants to review and prepare for the types of questions they would be receiving as well as decline any questions that may have triggered an emotional response or been discomforting. The letter also included an informed consent to be audio-recorded and notified participants that recordings will remain confidential and stored on a password-protected device. Lastly, participants were given the right to review transcripts following the interviews and to clarify or withdraw statements. Autonomy was provided through informed consent and allowing participants to accept or refuse participation at any point during the study. Beneficence was offered by keeping participants identities confidential; doing good and preventing harm (Orb et. al., 2000). Finally, justice was mandated by avoiding the exploitation and abuse of participants. Participants had the ability to refuse certain questions and to answer each question to their level of comfort. Furthermore, the transcription process was as objective as possible and participants’ answers were recorded as accurately and precisely as they were spoken.
3.6 Methodological Limitations and Strengths

Given the ethical parameters of approval for the Master of Teaching Research Project (MTRP) there are certain methodological limitations that must be taken into consideration. The MTRP mandates that teachers are the only approved interview participants and consequently parents, students or other outside personnel cannot be utilized for interviews or observed in any way to collect data. The study also limits the number of participants interviewed to three, which although still informs the topic at hand, cannot inform the experience of teachers in a more generalized manner. It is noted that in most qualitative research it is nearly impossible or too expensive to study all cases of a phenomenon (Hanly, 1947). Hanly (1947) notes that a strategy used by researchers to consider the adequacy of a small sample is to compare it with the statistical universe. In relation to this study, the statistical universe could be translated into the literature review and existing discourse that already examines mindfulness in education in Toronto. Furthermore, I interviewed participants that represent different ways in which mindfulness has been implemented in Toronto schools to get a range of responses about the types of programs being offered. For example, one participant implements mindfulness in her grade two classroom on a regular basis, the second participant is responsible for implementing it throughout the school as a part of the Ontario mental health initiative and the last participant is a teacher who runs the Mindfulness Without Borders program within her school.

In order to produce a study that is ethical and accurate I continued to inform participants as well as myself. Although the bounds of the interview process are limiting, interviewing teachers at a personal level allowed for more depth of analysis than a survey. The interview
allowed for observation to occur as well as for teachers to speak to what they feel personally about the topic at hand. In this way, the interview process validates the voice of the teacher and validates the data collected in these moments. An interview allows for teachers to reflect, conceptualize and open up about their role as mindfulness educators.

3.7 Conclusion

In this chapter I have outlined the research methodology for a study on mindfulness education in Toronto schools. I outline the importance of a qualitative approach to my study and the procedures I took, which include semi-structured interviews. I recruited sample participants by setting out a list of sample criteria and then employing teachers using a purposeful sampling technique that includes snowball sampling. I followed-up on my interviews by transcribing the data collected and providing my participants with a copy for approval. As the research methodology unfolded I became aware of the ethical dilemmas, challenges and strengths that a qualitative study at this level could procure and worked my best to foresee and eliminate any issues. In Chapter Four I report on the research findings and in Chapter Five I analyze these findings using purposeful data analysis techniques.
Chapter Four: Findings

4.0 Introduction to Interview Findings

In this chapter I shall present the findings of the interviews conducted with three individual Toronto teachers who have experience utilizing mindfulness in their classrooms. The findings have been organized by themes and subthemes based on concepts that surfaced throughout all three of the interviews. The subthemes are based on the themes that emerged throughout the process and contain commonalities and differences among participants. The following themes are: (1) teachers’ reasons for mindfulness implementation, (2) positive impacts of mindfulness in the classroom and (3) barriers teachers face using mindfulness in the classroom.

Each participant interviewed was a teacher in the greater Toronto area with experience utilizing mindfulness practices in their classroom. Participant one, who will be referred to as Jane, is a high school librarian in the Toronto Catholic District School Board. Her role as librarian allowed her to facilitate and run the majority of mental health and mindfulness initiatives in the school. Jane, along with a fellow teacher, implemented mindfulness into the religion classes in each grade through a mindfulness program that had been added to the religion curriculum. Participant two, who will be referred to as Roxanne, is an elementary and junior teacher in the Toronto District School Board. Roxanne has experience teaching students in kindergarten up to grade eight and has utilized mindfulness techniques in her classroom since the early stages of her teaching career. She has taken a mindfulness lead at her school, helping other teachers to implement mindfulness strategies with their own students and developing her own
mindfulness knowledge by attending workshops and conferences. The final participant, who will be referred to as Diana, is an elementary teacher in the Toronto District School Board who has taken a leave of absence to pursue a yoga-teaching career. Diana implemented mindfulness into her kindergarten classroom while she was teaching and now teaches mindfulness in schools through after-school programs and initiatives in which students and parents can participate.

### 4.1 Teacher’s Reasons for Mindfulness Implementation

Throughout the interview process, teachers implemented mindfulness as part of a school initiative or due to their own personal practice and values. Jane’s implementation had to do with a school-wide implementation of a mindfulness program within the religion curriculum, combined with her own meditation practices. Roxanne relied heavily on her own experiences as a youth growing up and using mindfulness while also relying on more experienced teachers and professionals for further development and encouragement. Diana implemented mindfulness as a result of her own personal yoga teaching pursuits and as a strategy to cope with teacher anxiety and pressure. Thus, mindfulness interventions arose as a result of teacher values, needs and school initiatives. Three major themes emerged in regards to these reasons for implementation.

#### 4.1.1 Student emotional regulation

Mindfulness as an educational strategy is largely based on the need to address anxiety within school settings. One of the major programs that mindfulness takes the form of outside of schools is Mindfulness Based Stress Reduction (MBSR). This program was designed by Jon Kabat-Zinn, founder of the Massachusetts Center of Mindfulness in Medicine and encompasses a variety of exercises such as body-scan meditations and yoga, meant to target stress and anxiety in
participants (Baer, 2003). Many of the strategies teachers use in their classrooms stem from these developed mindfulness interventions. Research has found a direct relationship between MBSR training and a reduction in student reported anxiety and depression symptoms (Shapiro et al., 1998). Hoffman, Sawyer, Witt, & Oh’s (2010) meta-analysis of thirty-nine studies found that the nineteen of the studies supported the effectiveness of mindfulness intervention with depression and anxiety symptoms (Davis & Hayes, 2011). The multidisciplinary field of contemplative neuroscience acknowledges and validates the notion that mental processes of the brain can be shaped in response to stimuli and experiences (Meiklejohn et al., 2011, p. 19). In-depth studies on the impacts of mindfulness on adult brain patterns have also found that grey-matter density in the brain, responsible for stress and anxiety can be decreased through mindfulness practices (Hözel et al., 2011). Thus much of existing literature supports the relationship between mindfulness and emotional regulation in children and adolescents.

Throughout the interview process the concept of “student anxiety” was a theme that resonated strongly. Jane had the opportunity to utilize mindfulness through a school-wide curriculum implementation where student stressors were addressed. She stated that, “we thought we would deal with the anxiety overall, rather than dealing with just students who are at risk. Just to lower the anxiety level overall is more the goal.” She reaffirmed the significance of this goal by stating how, “once everything is lowered (anxiety), where everybody is calmer, the students that have the really high needs are now in a calmer environment.” Thus, mindfulness was used as an attempt to acknowledge and prevent individual student anxiety by compelling each and every student in the school to take part in mindfulness learning.
Roxanne utilized mindfulness in her grade one classroom through a variety of activities and often took the opportunity to incorporate discussions about emotions and feelings during moments of behavioral tension in the class: “we had a parent come in recently to talk about mood clouds, because there was a lot conflict… so we were talking about the strategy of taking space, because people were getting into serious, repeated, daily conflicts with each other.” Linehan (1993) suggests that nonjudgmental observation allows individuals to recognize what the consequences of their behaviors will be. This recognition in turn can generate positive behavioral change and reduce impulsivity and maladaptive behaviors. The discussions that Roxanne had with her class about changes in mood and the usage of a “cloud” metaphor worked better for her grade one students.

Diana acknowledged how depending on the grade-level, students would respond to mindfulness differently. She noted, “I think with the older kids what’s neat is they appreciate that there’s a purpose to it, they know that it helps them feel better after and that they sometimes feel worried or upset.” There is an overall consensus in the literature that mindfulness has proven to produce beneficial results for children and adolescents, despite small sample sizes and evolving precision in methodology (Meiklejohn et al., 2012). However, there has yet to be a study that works comparatively to address the influence of age and grade level on mindfulness receptiveness with students. Ultimately, teachers felt that mindfulness could be used as a tool to assist in student emotional regulation, which aligns with findings within the research.

4.1.2 Teacher anxiety and stress

Meiklejohn et al., (2012) sheds light on the limited amount of research in regards to
teacher stress and burnout. There is a growing amount of neuroscientific evidence that supports the relation between positive emotional regulation in teachers and mindfulness practice. Mindfulness training helps to rework areas of the brain implicated in executive functioning (EF), which is responsible for cognitive processes such as planning, working memory, attention, problem solving, verbal reasoning, mental flexibility and multitasking (Chan et al. 2008). The 2005 Mindfulness Based Wellness Education (MBWE) program, generated at the Ontario Institute for Studies in Education (OISE) at the University of Toronto, arose as a response to the high levels of stress and burnout during teacher training (Meiklejohn, 2012). The MBWE program is one of the only mindfulness interventions being taken with pre-service teachers. The teachers interviewed within this study shared their own personal reasons for utilizing mindfulness as a regulation strategy.

Diana’s interest in mindfulness initially stemmed out of her own desire to deal with personal anxiety: “I started having anxiety attacks but I didn’t actually know what they were… anxiety wasn’t the catch phrase that it is now.” After learning that her anxiety could be diagnosed, Diana sought out a way to cope with her anxiety, which eventually led her to yoga. After discovering how mindfulness could be used to counter her own anxiety levels she was able to channel that into her classroom. When asked how she began using yoga with her students, she responded, “with no plan, this was just on my radar and was making my life better… and it created a very calm classroom.” Consequently, Diana’s own personal health was the reason for her initial experimentation with mindfulness in her class. The usage of mindfulness to combat anxiety and stress aligns with much of the literature surrounding mindfulness implementation in
education. There has yet to be an in-depth study conducted on the effects that mindfulness has on teachers’ mental health and the benefits that this has for student learning.

Jane admitted that she began mindfulness in drama classes during the 80’s and that it was only when her husband trained as a meditation instructor when she started sessions on her own. Roxanne retold how she has been practicing mindfulness since she was a teenager, “it grounds my entire life- I mean I’ve meditated since I was sixteen, I do lots of Tai Chi, I consider all of that mindfulness.” All three teachers utilized mindfulness in their personal lives; however, reasons for implementation were not consistently due to high levels of stress or anxiety but also as an overall enjoyment of mindfulness practices day-to-day.

4.1.3 Student relaxation

The relationship between mindfulness and relaxation was one of the most discussed reasons for implementation. “Mindfulness in Schools Project” has indicated that most mindfulness initiatives tend to focus on the emotional well-being of students, cognitive effects on learning and mental health (Weare, 2012, p. 2). Relaxation, however, has often been documented as a direct result of emotional, cognitive and mental health benefits of mindfulness. However, Baer’s (2006) review of mindfulness literature suggests that mindfulness is meant to induce behavior unsuited for relaxation such as; heightened awareness of muscle movement, breathing, thoughts or judgments and because of this, the relationship between mindfulness and relaxation is not always consistent.

Providing students with the opportunity to calm their minds during the day was something that teacher participant’s felt was important in order to maintain a high-functioning
classroom. Roxanne shared how her grade one students loved meditations where they would have to “play quietly without speaking” or “listen to the sounds of waves or rain.” Although quieting students for more relaxed instruction was often met with behavioral challenges, she felt that “the students really benefit from having quiet meditation time.” Thus, Roxanne found student relaxation was harder to facilitate but efficient and effective when successfully done.

Diana also shared the belief that students strongly benefited from relaxation techniques even if they were unaware of it themselves. She stated, “I think generally if it ends with some relaxation stuff … it changes their energy somehow, it pulls them out of wherever they were coming in with.” She went on to explain how students often confuse the feeling of relaxation with tiredness; “They often say ‘I’m tired’ but I think it’s because they don’t really know what relaxed feels like.” One of the major programs that mindfulness education takes the form of is stress-reduction. Many stress-reduction based programs help students work towards understanding their thoughts, feelings and negative emotions (Broderick & Metz, 2009). Although teachers’ believed that student relaxation seemed to increase during mindfulness interventions, students were not always able to distinguish between feeling tired and relaxed.

4.1.4 Academic improvement through listening and focus

The final reason for mindfulness implementation seemed to be an overall desire to improve student listening and focus. Due to the programming of Jane’s school, mindfulness was woven into the academic timetable through the religion curriculum. Mindfulness programming was tied to religious learning and was often accompanied by daily lessons such as “noticing emotional triggers,” “positive values” and other moral themes. Jane explained, “every lesson is
an activity, there’s the intro activity… then we do one on mind-body awareness… then they read and they discuss and then they meditate.” These lessons were often modified for each grade and oftentimes students from different grades had different topics that they were covering: “I go in and do mindful listening with all the grade ten classes, specifically the listening and focus because they’re kind of at that age where they need to.”

Roxanne utilized mindfulness as a listening and focusing strategy mainly for day-to-day student regulation. Due to the primary age level of most of her students, self-regulation was a key component of improving student success. She stated, “listening meditations they enjoy too because it’s a way I can get them to sit and when they are done I’d ask them ‘tell me what you heard?’ Also, at the end I’d frequently do a sharing circle and they love that.” The idea of sitting, listening and then sharing was a common theme that worked well in her classroom to facilitate student focus.

Diana seemed to utilize more movement-based approaches than the other participants interviewed. She often found that helping students stay focused required, “making the class harder or doing things they have to physically focus on.” Providing students with challenging tasks or tasks they were required to respond to strengthened student listening. In Saltzman and Goldin’s 2008 study, utilizing mindfulness-based stress reduction found that students were able to develop increased ability to focus attention and found that cognitive controls were linked to academic success. (Saltzman & Goldin, 2008, p. 142). By getting the students to focus on a difficult yoga pose or task Diana was intentionally engaging them in an activity that required careful concentration. Although these studies express a connection between mindfulness and the
development of listening and heightened focus, none of the participants in the study made clear how mindfulness has directly impacted the grades of their students. What they did make clear was how mindfulness that engaged and required student responsiveness made student focus successful.

4.2 Teacher Perceptions of Mindfulness Strategies

After discussing with participants the importance of mindfulness implementation within educational settings, the implications of these strategies were addressed. During the interview process, teachers shared what they felt were the most positively received mindfulness strategies used with their students.

4.2.1 Informal meditation-based impacts

Meditation is an integral aspect to mindfulness and can be understood as, the intentional self-regulation of attention from moment to moment (Goleman & Schwartz, 1976; Kabat-Zinn, 1982). Thus, mindfulness can be cultivated through meditation and has been directly linked to self-observation and meta-cognition (Davis & Hayes, 2011.) Mindfulness can take on a formal or informal approach. Formal approaches to mindfulness are more traditional and involve attending to one’s thoughts, feelings and body sensations that arise each moment (Meiklejohn et al., 2011). This type of mindfulness is conveyed through meditation and usually is performed sitting, standing or lying down (Meiklejohn et al., 2011).

When asked what implementation strategies worked best for Jane’s students, she remarked, “Do you know what, they actually like quieting their mind.” Her students’ favourite exercises included those where they had the chance to meditate and concentrate on their
breathing for up to twenty minutes: “If I can actually get them to lie down, they love it. I can get them to meditate for twenty minutes.” It is important to note as well that Jane’s students were all within the intermediate grades. When asked whether or not she believed that their ability to respond positively to meditation was related to their maturity she replied: “to be honest, I find that the grade nines and tens are open to it the most for some reason because I think that they have no idea how to deal with their stress.” Jane did not associate age or maturity level with the ability to meditate effectively but rather suggested that effective meditation was related to how badly students desired to develop stress-relieving strategies.

Roxanne noted that although her primary students were often more hesitant to engage in meditation, when it was accompanied by listening, walking or another imaginative element they were often more responsive. She stated, “Sometimes I do meditation lying down, I’ve done walking meditation a little bit, tasting meditation, listening meditation and they liked that.” She went on to tell how her students loved the tasting meditation and that using meditation in more creative ways with her younger students helped them to be more engaged. When asked about how she had utilized meditation with junior students she stated: “I think you have to really develop a program, it can’t just be ‘hey let's sit here for five minutes,’ I think if you want to do meditation, especially with an older group, you really need to give them theory.” Roxanne made clear throughout the interview how important differentiated learning was throughout the mindfulness process, particularly when it came to grade level.

Diana had similar experiences to share. Her take on meditation with youth was that they responded well to visualizations or guided meditations. She noted, “often we incorporate stories
depending on the age group, definitely some breathing, I’m experimenting with meditation more
and more.” She also stated, “music meditation and colouring for example… give them different
experiences in the hour.” Thus, Diana worked to introduce meditation with her students in more
creative ways. She also ensured that her students were being directed while meditating and that
she was not just trying to get them to meditate alone.

Both Roxanne and Diana utilized meditation alongside other mindfulness elements such
as music, tasting or visualizations. It appears evident through these two interviews that
combining meditations with guidance and instruction helped students to focus and engage. Jane’s
students seemed to exhibit more independence in regards to their abilities to engage in
meditation without another mindful element or guiding factor, however, it is unclear throughout
the interview process whether or not there was one particular meditation strategy that worked
best for all participants. Jane and Roxanne both brought up the notion of theory for higher-level
students in order help them to engage and appreciate the exercises. This observation aligns itself
with mindfulness literature that supports the positive impact meditation can have on students,
regardless of age, gender or class but the inability for mindfulness studies thus far to distinguish
between the types of strategies that benefit students most. Although neither teacher denied the
effectiveness of meditation, both utilized meditation techniques somewhat unconventionally and
focused on student-involvement more.

4.2.2 Movement-based strategies

Along with meditation, movement-based activities were another area that was strongly
advocated for by teachers. Roxanne’s early experiences with mindfulness involved Tai Chi in her
adolescence, which she frequently employed in her classroom. She also incorporated yoga with her students in creative ways: “there’s all kinds of games you can do with them that involve laughter. They have to make each other laugh for example, I call it laughter yoga.” Not only did she utilize humor to facilitate mindfulness but she also utilized narrative: “there’s a couple of yoga books I use, this one has yoga stories, each day we would do a pose one of them is about going into a forest, one of them is about the desert.” Roxanne often incorporated meditation in more abstract ways that involved movement. She noted how mindfulness has to be something experimental and playful when utilizing it with younger children, “it has to be playful, I like to incorporate movement or with a story, so they’re not just being asked to sit and do nothing, they’re involved.” The theme of student involvement whether physically or mentally seemed to run through each teacher’s’ interview and through much of the mindfulness research. Broderick and Metz (2009) implementation of mindfulness with high school girls found that through integration within the phys. Ed and health curriculum, mindfulness was successful at maintaining student engagement (Broderick & Metz, 2009). Theoretical and empirical research has often focused on the benefits of mindfulness cultivated through meditation (Davis & Hayes, 2011) although there are several other practices that can develop mindfulness, (i.e. yoga, Tai Chi, qigong; Siegel, 2007) such as the practices utilized by Roxanne.

Diana began her mindfulness practice through yoga, which then led her to obtain a yoga teaching certification. The influence of yoga on her life strongly affected the ways she chose to approach mindfulness in her classroom. As a teacher working with students in afterschool programs, she often found greater periods of time to teach mindfulness exercises:
I’d say the classes I do now are much more active because you have them for a period of time, like if I did yoga in my classroom it’d be for five minutes here and there, but if you have them for an hour, we usually do a community circle and other things, it just moves faster… often we incorporate stories depending on the group… a little art project that carries on over a couple of weeks to give them a different experience.

For Diana, the amount of time allotted to mindfulness directly impacted the strategies she would use with her students. Since Diana often utilizes mindfulness in after-school programs where curriculum implementation is not required, mindfulness was implemented through yoga and movement exercises that were more rigorous in their pacing and less theory based. Due to the nature of timing, the usage of active and multiple strategies is what kept students engaged and willing to participate.

4.2.3 Moments of stillness

The final theme in which all three participants shared was the willingness of their students to lie down. Savasana, which has also been named “corpse pose” or lying down pose,” is often the final pose of a yoga sequence or a suggested position for meditation. No matter the age, grade or school, each participant garnered similar responses when it came to lying down exercises. Jane shared her observations on the topic: “If I can book for example, the gym and I can actually get them to lie down, they love it.” Her main observation was that once students were in Savasana they really began to appreciate the exercise and enjoyed the time to slow down their day.
Roxanne shared her experience using Tai Chi sleeping meditations with her class. She described the meditation as “having the students lie on their backs with their hands flat, they love that. Everybody loves that. It’s a great way to get them to be quiet and mindful and to cool down.” Although she found that the sitting meditations were not very successful, the one’s in which her students could lie down on their backs helped them to relax most, particularly during transitional moments of the day such as after recess or lunch.

Diana noted the importance of lying down when it was coupled with a listening activity. Through her experience incorporating mindfulness in a number of classroom and school settings, she observed how students were very responsive to guided listening or visual meditations when they were allowed to lie still. She stated, “The overall trend is that children just want to lie down and listen, it’s like a story.”

The different aspects of meditation have yet to be fully deconstructed in the literature. The Toronto Catholic District School Board’s 2013 study on mindfulness implementation was one of the few studies that found the most successful method included was body-scan meditations (Smith-Carrier & Gallinaro, 2013). Although teachers perceived lying down meditations and activities to be well received by students, the interviews failed to distinguish whether or not it was because students benefited from these practices and remained engaged or if students merely enjoyed the opportunity to lie down. The inclination with students overall seems to be that lying down meditations were well received and even more successful when paired with a guided exercise.

4.3 Barriers Teachers Face Using Mindfulness in the Classroom
The introduction of any new program in a classroom must anticipate barriers and resistance from students. The implementation of mindfulness in a school environment where there are a number of voices and personalities at play can provoke numerous and complex responses. The three most common barriers to mindfulness implementation are discussed below.

4.3.1 Behavioral barriers

With every classroom comes the need to establish an effective means of facilitating classroom management. When it comes to mindfulness, the classroom is one of the only instances in where management and behavior is something that must be addressed in order for implementation to run smoothly and functionally. A common theme that the interviews yielded was the repeated reference to the “disruptive child” and their place within the mindfulness framework.

Jane shared her experiences of a time where one student was “saying some nasty jokes about other kids” and that this inevitably created a “toxic start” that deterred the other students from opening up.

Roxanne shared a similar perspective on the “disruptive student” but stated that if the majority of the class had “fairly decent self-regulation” it may not have been an issue. However, in a classroom where self-regulation was an issue, that one child could hinder the entire experience: “I think you can incorporate it, you just have to work around really disruptive children, you can try, but a lot of the times they’re just not going to do it.” Both teachers share the perception that accepting student’s disengagement is part of the process and that as long as it does not create a negative environment for the other students, then mindfulness practices can be
Diana found that when dealing with disruptive students it was often easier for her to be assertive when it was her own classroom rather than when she was implementing mindfulness after school or in a fellow teacher’s class. She stated, “I find it harder when I’m not their teacher all the time and the kids just have to do it.” Thus, student behavior related to the level of comfort and respect they had established with their teacher.

Literature on the subject repeatedly suggests the ability of mindfulness to increase students’ socially competent behaviors and improve cognitive behavioral development (Schonert-Reichl & Lawlor, 2010; Meiklejohn et al., 2012; Flook et al., 2010; Singh, 2003) However, the teachers in this study suggest that behavioral improvements are not always the case and that poor behavior can often devalue the experience for other students. Studies on mindfulness and behavioral improvements have often focused on how attendance played a role in student involvement. Smith-Carrier and Gallinaro (2013) report a strong connectivity between poor student attendance and poor results. None of the three teachers mentioned student attendance or commitment during the interviews but all shared a similar belief that by guiding rather than participating in mindfulness practices, they could facilitate classroom management and discipline and that behavioral strategies that worked for one group did not always work for another.

4.3.2 Curriculum restrictions

A mindfulness-based curriculum is one of the many ways in which mindfulness is being introduced into educational settings around the world. Meiklejohn et al., (2012) define
mindfulness-based curricula as: “age-appropriate mind–body practices that aim to increase focused attention, social competencies, and emotional self-regulation” (p. 10). With the three interviews conducted, only one of the participants was actually able to utilize mindfulness through a curriculum-based program. All three participants felt that the lack of mindfulness recognition within the Ontario curriculum posed a barrier to teacher and student access.

Jane felt that in order for mindfulness to be successful for students it had to become “embedded in the curriculum.” She stated that if mindfulness continues to be an “add-on” for teachers it would not be utilized to it’s full potential or would often be disregarded when teachers run out of time. Mindfulness had been embedded into the religion curriculum at Jane’s school, which provided teachers with resources and allotted a period of time during religion classes to cover mindfulness topics. Thus, Jane felt that all boards should take a similar approach in embedding mindfulness content into the curriculum.

Roxanne shared a similar opinion when asked about curriculum implementation, “I think it would be really good if all schools did mindfulness. Absolutely, I think it would make a huge difference.” Diana also felt that mindfulness-based curricula could be beneficial, yet showed some skepticism about whether or not curriculum implementation would actually make a difference. Her concerns stemmed from the fact that there is never a “guarantee that if it’s part of the curriculum it will even be utilized.” In relation to mindfulness, curriculum implementation cannot be effective if it is not something that the teacher embodies in his or her own life. She stated, “I don’t know how you embed it in a real way if there is a gym teacher that is totally unconscious for example. It’s like asking me to try and teach music, I could kind of do it, but it’d
be terrible.” Diana’s concerns parallel the concerns discussed in the literature. There is no universal approach to mindfulness; therefore, mindfulness-based training for teachers would continuously need development and refinement (Meiklejohn et al., 2012). Furthermore, motivating schools and teachers to embrace the curriculum and find time and space to incorporate it into the curriculum (Meiklejohn et al., 2012) are both issues that participants and literature discuss as challenges.

Curriculum implementation of mindfulness is one that dwindles between ensuring that all students have the opportunity to be exposed to mindfulness and the issue that not all teachers, schools and boards are equipped with enough skills, time or resources to implement it effectively.

4.4 Summary of Findings

This section unveils the analysis and findings of three interviews conducted with teachers who have implemented mindfulness with an array of students across Toronto. The examination began with a close look of how teachers chose to approach mindfulness and what the reasoning was behind each of these choices. The overall consensus by teachers was that mindfulness functioned as a successful tool to facilitate student emotional regulation and relaxation, which ultimately enhanced their academic performance. Teachers also stressed the importance of mindfulness in their own lives in order to facilitate their classrooms as effectively as possible.

Each participant found that the positive impacts of mindfulness implementation included meditative as well as movement-based strategies. The meditative strategies were almost always accompanied by guided lessons and visualizations to help students focus and keep the meditation
engaging. Furthermore, meditation and movement strategies were almost always followed up by a discussion that increased student participation and reinforced the importance of involvement in the exercise. Lastly, students who genuinely took the moments to decompress and meditate in a lying down position communicated their enjoyment of Savasana. It is clear that these strategies although varied, share several commonalities that teachers perceived to positively impact students.

Although most practices were received well, teacher participants have to confront several barriers when implementing their mindfulness practices. Student behavior and management was one of the most common and anticipated barriers teachers conferred on. Behavioral outbursts could often be negated but could also generate a toxic and judgmental atmosphere for other students participating. Furthermore, restrictions within the curriculum led to discussions on how mindfulness is limited and how many teachers lack the professional training and resources for proper implementation.

Regardless of the challenges participants faced, each still felt that mindfulness practices were gaining momentum in schools and that by exposing students to these strategies early on in their educational careers, they would be better equipped with the tools to develop positive mental health tactics throughout their lives.

In Chapter five, I will discuss the issues presented throughout the interviews that were not addressed within the literature and the implications that these issues have on mindfulness within education. Recommendations revolve around the need for teacher experience and knowledge with mindfulness. Suggestions for future research will center on authentic
implementation of mindfulness through teacher training and teacher-centered approaches.

Furthermore, Chapter five will outline the need for mindfulness strategies that diverge from meditation practices and include more thorough and detailed accounts of alternative mindfulness programs with students, such as yoga or Tai Chi. Lastly, Chapter five will also outline how teachers’ perceptions align with the literature on the best models for mindfulness implementation in schools and the limitations of particular mindfulness models with students.
Chapter Five: Implications

5.0 Introduction

This chapter discusses the implications of this study in connection with existing research and in benefit of future study on mindfulness in education. This study examined the practicality and efficiency of existing mindfulness initiatives in Toronto schools through teacher-informed interviews. It aimed to deconstruct the nature of mindfulness implementation with youth in Toronto classrooms and to highlight the most effective mindfulness strategies based on teacher perceptions of student progress. Finally, this study intended to understand the relationship between the mindfulness strategies teachers’ employ and their potential to generate consistent and positive effects on student well-being. This chapter compares the findings of the interviews to studies within the literature and suggests the implications of these findings for future researchers and mindfulness educators.

5.1 Overview of Key Findings and their Significance

The findings of the interview process with three Toronto teachers utilizing mindfulness brought forth several themes consistent with those present in the research literature. Participants spoke of their introduction to mindfulness and the value that the practice held for them in their personal and professional lives. Participants also shared the approaches they perceived to be most effective with their students and those that they felt failed to serve purpose in their classrooms. The themes brought forth that were consistent with the literature are as follows: (1) teachers utilized mindfulness to address student emotional well-being (2) teachers found an inherent value for mindfulness within their own lives which impacted the authenticity and
effectiveness of the student experience (3) teachers employed the use of mindfulness in the hopes to inspire academic success but correlation between the two was uncertain (4) teachers utilized a variety of formal and informal meditation techniques with students that proved valuable (5) teachers felt that mindfulness support could be strengthened through the curriculum but would not ensure effective programming.

5.1.1 Emotional regulation as main goal of practice

The most prominent and immediate reasons for mindfulness implementation by teachers and schools were based on the need to assist students in emotional development and control. Participants found that implementation would successfully address student stress and anxiety and promote the regulation of these mental reactions through mindfulness relaxation and calming techniques. An analysis of the literature suggests that several mindfulness implementations conducted with youth had similar aims. The widely adapted MBSR program was modified to develop programs for youth dealing with stress and anxiety such as the MAC (Mindfulness Ambassador Council) program in the TCDSB and the L2B (Learning to BREATHE) program in the United States. These programs utilized in a variety of studies, aimed to teach students how to understand their thoughts, feelings and negative emotions (Broderick & Metz, 2009). Teacher participants within the study related that students often displayed levels of calm and relaxation after mindfulness instruction and performed better collaboratively with decreased amounts of conflict. These statements are strengthened through the research that utilized MBSR approaches and found a decreased level of anxiety (Napoli, Krech & Holley, 2005), decreased negativity (Broderick & Metz, 2009) and increased positive emotion and relaxation (Broderick & Metz, 2009).
5.1.2 Teacher’s value for mindfulness

Prior studies on mindfulness in education often fail to delve into detail on the nature of teacher training and introduction to mindfulness. However, there has been consistency in the importance of mindfulness as a daily practice and value for educators. All three teacher participants had a history of mindfulness practice in their day-to-day lives and had also developed a strong understanding of the moral significance that the practice held for them. Kabat-Zinn (2003) highlights the importance of instructor practice in order to generate an authentic mindfulness experience and positive results in patients. Further research aligns with this belief and addresses the need for teacher training to derive progressive results in students. Many programs that have been implemented in schools often utilize mindfulness professionals or external mindfulness organizations such as the Mindfulness Without Border program utilized by TCDSB teachers in 2013 (Smith-Carrier & Gallinaro, 2013) to help train teachers on approaches that they can use with their students and the value that mindfulness can have in schools.

5.1.3 Academic success and mindfulness correlation remains inconsistent

Research on the effects of mindfulness interventions on student academic performance was highlighted as an area of inconsistency and ambiguity for teacher participants, as well as within the literature. Teachers within this qualitative study expressed their desire to integrate mindfulness to improve student concentration and listening. Studies within the literature also implemented similar goals and found general improvements in student attention and focus (Saltzman & Goldin, 2008; Napoli, Krech & Holley, 2005; Singh, 2006; Van der Oord et al.,
Although each teacher expressed that mindfulness helped to engage students actively and stimulate their listening and concentration post-mindfulness intervention, they failed to draw a connection between these interventions and student grades. There is little to no mention of the link between cognitive enhancement and student academic achievement within the research. Smith-Carrier and Gallinaro (2013) found increased decision-making to be a positive result of their study but made no connection to educational improvement because of this. Saltzman and Goldin (2008) were one of the only studies to indicate academic improvement but suggested that academic achievement was one of the last variables to reach maturity during consistent mindfulness intervention (p. 155).

5.1.4 Informal and formal meditation techniques were valued

All three teacher participants utilized a wide range of formal and informal meditation techniques with their students. These techniques ranged from traditional sitting and lying down meditations to non-traditional listening, walking and eating meditations. Teachers expressed their usage of these techniques as a desire to keep students engaged and focused during the mindfulness process. Much of the research discusses the array of mindfulness techniques that can be tried with students. The most widely used implementations within the research were body-scan meditations (Smith-Carrier & Gallinaro (2013); Flook et al., (2010)) and seated meditations (Flook et al., 2010). Evidence within the research was unclear surrounding student opinions and reception of mindfulness activities. Teachers within this study perceived the most positively received meditations were guided and involved listening, thinking or some form of movement.
5.1.5 Curriculum implementation as support for mindfulness programming

Lastly, both the literature on mindfulness education and the research from this study suggest that the incorporation of mindfulness into the school curriculum would benefit student well-being and enhance teacher knowledge on mindfulness as a mental health tool. Programs such as the Mindfulness Ambassadors Council (Smith-Carrier & Gallinaro, 2013), the “Mindfulness Education Program” (Schonert-Reichl & Lawlor, 2010), Learning to BREATHE curriculum (Broderick & Metz, 2009), the “Mindfulness in Schools Project” and “Mindfulness Without Borders” provide teachers with professionally developed pedagogy and lessons to utilize with students. Several scholarly reviews of the research believe that mindfulness implementation into the curriculum would be beneficial to students and increase feasibility (Napoli et al., 2005; Zylowska et al., 2007; Flook et al., 2010). However, there is greater discussion within the literature on the types of implementation that would be effective. Mendelson et al., (2010) suggests that curricula need to be tailored to the needs of the people within that community and remain culturally relevant (p. 278). The teacher participants within this study also expressed the issues of cultural and community value in supporting curriculum. Mindfulness implementation in the educational curriculum could only promise success if students and teacher within that community valued mindfulness as a strategy and were confident in employing it in their classrooms.

5.2 Implications for Integrating Mindfulness into Toronto Schools

The findings of this study and the research both validate the knowledge that teachers who are practiced and trained in mindfulness perceive a multitude of benefits from using mindfulness
in their classrooms and that further support and awareness surrounding mindfulness culture in education will only benefit the mental health of student populations. The following two sections will analyze the implications of these findings within a broad framework of educational research and a narrow framework of personal and professional development.

5.2.1 Broad: the educational research community

The broad implications of this study suggest that mindfulness, as an educational tool in Toronto schools, must develop some formal curriculum implementation. However, the curriculum implementation of mindfulness must be accompanied by school board and community initiatives to encourage a culture of student well-being.

In schools where mindfulness programs have not been developed, curriculum implementation would need to be accompanied by school board and school incentives to educate and inspire teachers about the value of mindfulness in their classrooms. One of the participants from this study, commented on how mindfulness would be received if it became an embedded program without proper follow-up, “it’s like asking me to try and teach music, I could kind of do it, but it’d be terrible.” This coincides with the literary reviews that assess mindfulness-based curricula within schools. Meiklejohn et al., (2012) review of these programs make seven suggestions that correspond with the research from this study: (1) need for continued development and refinement of best practices for adult mindfulness training (2) lack of agreement on active ingredients of the programs and how to measure their effectiveness (3) motivating schools to embrace curricula (4) frequent changes in school budgets, education policies and priorities (5) funding concerns (6) finding qualified mindfulness teachers to train
teachers, students and parents (7) finding a suitable time and space within the school day to implement the practice (p. 12).

The teacher’s within this study also expressed concern regarding measuring student progress and admitted that most of their program had not developed any formal assessments of student development. Curriculum implementation would take time, effort and resources that school communities would need to commit to in order to affect real change. All three participants noted that exposing pre-service teachers to mindfulness training is a beneficial long-term strategy and would increase awareness, however, there needs to be progress made with teachers that are already in-service as well. Thus, mindfulness curricula can only affect real change if teachers receive some formal guidance in relation to real life and classroom application.

5.2.2 Narrow: professional identity and practice

It is evident that mindfulness as a mental-health and well-being initiative not only benefits students but aids teachers in their personal and professional development. Teacher stress and burnout were concerns that arose during the qualitative interview process of this study, along with teacher’s desires to protect and strengthen their own mental and emotional well-being. The implications of this were that mindfulness helped teachers to regulate their classrooms more efficiently and were able to foster preventative approaches to conflict resolution and emotional regulation in their classrooms rather than corrective ones. Meiklejohn et al., (2012) discusses the significance of providing teachers with training in resilience. Preliminary studies on meditation-produced brain alterations suggest that individuals can actively promote healthy brain improvements (Hözel et al., 2011).
As a future educator, mindfulness not only benefits the needs of my students but of my own professional and personal life. A mindfulness approach to teaching then must be redefined. Mindfulness education is not solely the incorporation of mindfulness activities and games throughout the day but of an overall mindfulness approach to learning. Meiklejohn et al., (2013) review of mindfulness research and teacher-training programs delineates two approaches to mindfulness teaching. A direct approach would involve only the first step of incorporating visibly palpable mindfulness activities and resources and an indirect approach would involve the embodiment and cultivation into everyday life and student learning (p. 4). I hope to implement both as a teacher in my own classrooms.

5.3 Recommendations

This study was limited to qualitative findings of three teacher interviews and may not be reflective of all teacher populations. The recommendations made by this study suggest a greater attention towards the teacher’s role as a mindfulness facilitator within the classroom. Many studies up to date have focused heavily on student-centered approaches or analysis of the structure and implementation of mindfulness interventions. However, there has been a limited focus on the influence that mindfulness trained teachers have on their students’ experiences. Napoli, Krech and Holley (2005), Schonert-Reichl and Lawlor (2010), and Mendelson et al., (2010) were three studies that utilized teacher reports and notes in the final data to assess student progress. Therefore, suggestions for future research should take into consideration teacher training, values and teacher evaluations of their students. Recommendations for mindfulness in education research would involve a more teacher-centered approach to implementation that
analyzes the time and resources put into educational training and professional development for in-service as well as pre-service teachers.

5.4 Areas for Further Research

Suggestions for future research with mindfulness in the education of Toronto students are based on the qualitative findings of this study as well as prior mindfulness research conducted in schools. The first recommendation involves the development of more rigorous studies and research on the link between cognitive and academic progress with mindfulness in education. The literature thus far has guided us in the direction that mindfulness can have profound effects on cognition and alters grey matter density in the hippocampus, central to learning and memory (Hözel et al., 2011). However, the link between these developments, student grades and academic scores has not been given ample attention.

Second, further research in the field of mindfulness in education should take a narrowed approach to the strategies utilized and generate an assessment of the practices that prove most effective with students. The literature thus far has concluded that most mindfulness initiatives in schools involve a level of formal and informal action that are cultivated by encouraging individuals to focus on the bodily, thought and emotive sensations experienced in each moment (Baer, 2003). Studies with children have utilized a number of formal practices that involve traditional lying down, sitting, standing or moving meditations as well as informal awareness that is cultivated through the activities of everyday life (Meiklejohn et al., 2012). The participants in this study utilized both formal and informal approaches, often incorporating higher levels of student participation and group discussion. However, teacher perceptions on the
types of strategies that worked best varied from age to grade. In order to develop more concrete programs for teachers and students there needs to be a more thorough examination of the strategies that work best with different students and a consensus within the research in order to move forward with curricula design.

Third, the obstacles that teachers face when implementing mindfulness into their classrooms must also be considered when designing curricula. Behavioral interruptions and classroom conflicts can be a huge barrier for students during mindfulness programming. Studies that have been conducted thus far on groups of students with behavioral needs or concerns have often been implemented outside of a school setting or have separated student populations based on learning abilities. The suggestion then is to design interventions and research that assesses mindfulness approaches that are adaptable to all classroom environments, comprised of multiple learning personalities and accommodating students with disabilities.

5.5 Concluding Comments

The key objective of this study was to unveil the success and shortcomings of mindfulness programming in Toronto schools thus far. The qualitative nature of the study accumulated data through a teacher-centered approach and assessed mindfulness strategies and initiatives based on teacher perspectives. Findings of the study concluded that mindfulness, as a mental health strategy in schools is effective in promoting student emotion regulation, relaxation and cognitive development. Teacher reports suggested that mindfulness activities be both formal and informal and involve guided, student-centered learning with consolidation and discussion. The teachers within this study found that the best results for mindfulness implementation
required repetition and effective behavioral management of students. Suggestions made by teachers for future application of mindfulness programming involve developing a mindfulness curriculum that teachers can use and ensuring that teachers have exposure to training opportunities while in service and in pre-service learning. The momentum of mindfulness teacher education and student education is on the rise and can only benefit the future of Toronto’s educators. The study has worked to shed light on some of the challenges that mindfulness educators face in the hopes of bringing forward better and more effective programming opportunities.
References


Appendix A: Letter of Signed Consent

Date:

Dear __________________________,

My Name is Katie Manakis and I am a 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 program involves conducting a small-scale qualitative research study. My research will focus on mindfulness implementation with intermediate youth in Toronto schools. I am interested in interviewing teachers and other classroom educators (volunteers, ECE’s etc.) who incorporate mindfulness into their classrooms or school communities. 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. 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. Your identity will remain anonymous and the information you disclose during the interview will remain confidential. I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. Any information that identifies your school or students will also be excluded. The interview data will be stored on a protected electronic device belonging to myself, and the only person who will have access to the research data will be my course instructor Professor Rose Fine-Meyer.

You are free to contact me if you have any questions or if you change your mind about your participation at any time. You may also chose to withdraw after you have consented to participate and may decline to answer any specific question during the interview. A copy of the transcript will be shared 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,

Katie Manakis
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 Katie Manakis 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/Questions

Thank you for agreeing to participate in this research study, and for making time to be interviewed today. This research study aims to learn about how teachers in Toronto schools incorporate mindfulness in their classrooms and how these strategies affect students. This interview will last approximately 45-60 minutes, and I will ask you a series of questions focused on mindfulness implementation in one’s school and 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?

**Background Information:**

1. Tell me a little bit about your teaching career. What qualifications do you have?
   
   a. How long have you been teaching at this school?

   b. How many years have you been teaching?

**Teacher Perspectives/Beliefs:**

1. When were you first introduced to mindfulness?

   a. What were your first impressions of mindfulness strategies?
b. Did you ever anticipate using mindfulness as a mental health strategy with students?

c. How useful do you find mindfulness to be for you?

d. How often do you feel you implement mindfulness in your life?

Teacher Practice:

1. What made you decide to incorporate mindfulness into your classroom?
   a. When did you start incorporating mindfulness into your classroom?

2. What specific mindfulness strategies do you use on a daily basis with your students?
   a. Which strategies do you find most helpful?
   b. What methods do you use to prepare for your lesson/activity?
   c. Do you use any resources? If so what kind?
   d. What strategies do you find your students are most engaged in? What strategies do you find to be ineffective if any?

3. What experience do you have teaching mindfulness to intermediate youth?
   a. Does it differ from elementary implementation?

4. What is your goal of implementing mindfulness in your classroom?
   a. Do you find it assists in your students’ social-emotional well-being?
   b. Do you find it improves your students academically?

5. What types of learning opportunities are created through the usage of mindfulness that
you did not anticipate?

a. Are there any assessment and evaluative techniques you use?

Challenges/Support:

1. What challenges have you encountered while teaching mindfulness to your students?
   a. How do you deal with a student that is being disruptive? That is struggling to engage?
   b. How do you incorporate students with learning disabilities? ELL learners?

2. How do you think the education system or the school may be able to further assist/support mindfulness initiatives within classrooms?
   a. How could they support you as a teacher?
   b. How could they support the school further?
   c. What kind of support have you already received?

Next Steps:

1. What do you hope to achieve by incorporating mindfulness in your classroom?
   a. What are your future mindfulness goals?

2. What kind of advice could you give to a future teacher that hopes to incorporate mindfulness into her classroom?

Thank you for your participation in this research study.