Preparing Teacher Candidates for the Present:

Exploring the Praxis of Mindfulness Training in Teacher Education

By

Geoffrey B. Soloway

A thesis submitted in conformity with the requirements
for the degree of Doctor of Philosophy
Curriculum, Teaching and Learning
University of Toronto

© Copyright by Geoffrey Soloway 2011
Preparing Teacher Candidates For The Present:

Exploring the Praxis of Mindfulness Training in Teacher Education

Geoffrey Benjamin Soloway

Doctor of Philosophy

Curriculum, Teaching and Learning
University of Toronto

2011

Abstract

The fields of medicine and health care continue to demonstrate the benefits of mindfulness-based practice for stress reduction and well-being. Research is also beginning to reveal the professional benefits of mindfulness training with human service professionals, as well as the impact with children and youth, and more broadly within the field of education and human development. This qualitative action research study uses a grounded theory approach to elucidate the added value of the Mindfulness-Based Wellness Education (MBWE) program within three main areas of teacher education: dispositional development, content knowledge, and instructional repertoire. Two years being engaged in the iterative process of teaching, interviewing teacher candidates, and program development brought forth five main themes: (1) Personal and Professional Identity, Reflective Practitioner, (3) Constructivist Learning & Holistic Vision of Teaching, (4) Social and Emotional Competence on Practicum, and (5) Engagement in Teacher Education. Additional findings outline key curricular and pedagogical components of the MBWE program that facilitate teacher candidate learning. Finally, a holistic model of pedagogical well-being presents an avenue for understanding the integration of mindful wellness into teacher education, and the K-12 classroom.
Acknowledgments

In many ways, this dissertation is an expression of the learning journey I have been on over the past ten years. Along this path, there have been many people and places that have contributed to my personal and professional development. I am grateful to these lifetime contributors, and think you’ll find your imprint on the pages that follow.

I came to OISE of the University of Toronto to study with Dr. Jack Miller. Thank you Jack for your work over the past 25 years in creating a foundation for the field of holistic education, and for your continual guidance in helping me find my place within it. During a critical time in my doctoral studies, Dr. Barrie Bennett offered me his time and feedback. Barrie, I am grateful for the many conversations that helped me clarify my research path, and for the time you spent editing my work and helping me become a better writer. Dr. Kathy Broad played a pivotal role in continually helping me conceptualize my work, and make connections to teacher education. Kathy, your caring feedback always advanced this study both theoretically and inspirationally. Dr. David Booth’s office was a place of refuge for me throughout my studies at OISE/UT. David, your continual support was heart warming and enabled me to keep moving forward.

My OISE community was always there for a conversation, or helping hand – in specific thank you Tim, Gail and Kelli for inspiring conversations and friendship along the way. To my friend and colleague Angela Mcdoogle, your unwavering kindness and keen insights enriched my process, and I am grateful to have developed a lifelong friend. To a childhood companion who seems to get better with age – Aaron Andrew – when things got busy over this past year, your selfless support was endless; a deep bow of gratitude for your feedback on previous drafts of this work.

This dissertation was written in majority at my family cottage in Parry Sound, Ontario. I am thankful for having the opportunity to retreat on many occasions to a place of calm and serenity. I am thankful to my Mom and Dad for creating that context, and for all the encouragement along the way. To the wider Soloway Family – being able to step away from this work into the playtime of Matt, Tara, Layla & Lucas, and Ian, Lindsay and Kingston offered much needed breaks. And, to my lovely bride Tamara, whose natural inclination to be mindful is
a gift that keeps on giving. Tamara, you were always present with me to share in the excitement of new ideas unfolding, and helping me find clarity amidst confusion.

And finally, to the teacher candidates who took the Stress & Burnout course over the past five years – thank you for engaging in the process of mindfulness-based wellness education, and allowing me to be witness, and part of your process of growth and transformation.
Table of Contents

Acknowledgments ......................................................................................................................... iii

Table of Contents ......................................................................................................................... v

List of Tables ................................................................................................................................. ix

List of Figures ............................................................................................................................... x

List of Appendices ......................................................................................................................... xi

Chapter One .................................................................................................................................. 1

1 Introduction ................................................................................................................................. 1
  1.1 Preparing the Person for the Profession ................................................................................. 1
  1.2 Purpose ................................................................................................................................... 2
  1.3 Rationale for Using Mindfulness-Based Training ..................................................................... 3
    1.3.1 Personal and Professional Benefits of Mindfulness ......................................................... 3
    1.3.2 Mindfulness in Education ................................................................................................. 5
    1.3.3 Mindfulness-Based Wellness Education ........................................................................... 6
  1.4 Research Questions ................................................................................................................... 8
  1.5 Theoretical Framework ............................................................................................................. 8
    1.5.1 Holistic Education ............................................................................................................. 8
    1.5.2 Holistic Movements in Education ..................................................................................... 9
  1.6 Scope and Limitations of the Research ................................................................................... 11
  1.7 Outline of the Dissertation .................................................................................................... 12
  1.8 Key Terms and Definitions .................................................................................................... 13
  1.9 Summary ................................................................................................................................ 14

Chapter Two .................................................................................................................................. 15

2 Review of the Literature .............................................................................................................. 15
  2.1 Mindfulness in the 21st Century ............................................................................................. 15
    2.1.1 Therapeutic Benefits of Mindfulness in Medicine & Mental Health ................................. 16
    2.1.2 Science of Mindfulness .................................................................................................... 18
    2.1.3 Higher Education & Human Service Professionals ......................................................... 28
    2.1.4 Mindfulness Training with Teachers .............................................................................. 30
  2.2 Issues in Teacher Education Related to Mindfulness ............................................................ 34
2.2.1 Apprenticeship of Observation ................................................................. 35
2.2.2 Enactment .................................................................................................. 38
2.2.3 Priorities of Teacher Education .............................................................. 40

2.3 Mindfulness in the Context of Holistic Education ...................................... 41
   2.3.1 The “What” of Holistic Education ......................................................... 43
   2.3.2 The “How” of Holistic Education .......................................................... 46

Chapter Three .................................................................................................. 49

3 Methodology .................................................................................................... 49
   3.1 Finding my Research Path ......................................................................... 49
      3.1.1 Quantitative and Qualitative Perspectives .......................................... 50
      3.1.2 Bricolage ............................................................................................. 51
   3.2 Research Design & Approach .................................................................... 53
      3.2.1 Action Research .................................................................................. 53
      3.2.2 Grounded Theory .............................................................................. 55
      3.2.3 Theoretical Sampling ......................................................................... 56
      3.2.4 Sample ................................................................................................. 58
      3.2.5 Interviews ........................................................................................... 59
   3.3 Data Analysis .............................................................................................. 61
      3.3.1 Grounded Theory Analysis .................................................................. 61
      3.3.2 Typology Analysis ............................................................................... 64
      3.3.3 Elephant in the Research .................................................................... 64

Chapter Four ...................................................................................................... 67

4 Improving Teaching & Learning in Mindfulness-Based Wellness Education .... 67
   4.1 Assignments in MBWE .............................................................................. 67
      4.1.1 Intention for Course ............................................................................ 68
      4.1.2 Professional Interview ........................................................................ 69
      4.1.3 Personal Wellness Workbook ............................................................... 71
      4.1.4 Mindful Teaching Journal .................................................................... 72
      4.1.5 Holistic Lesson Plan ............................................................................ 72
      4.1.6 Presentation .......................................................................................... 74
      4.1.7 Final Self Study Research Paper ............................................................ 75
      4.1.8 Class Participation & Evaluation ......................................................... 76
      4.1.9 Summary .............................................................................................. 77
4.2 Engaging Students in MBWE ................................................................. 78
  4.2.1 Formal Mindfulness Practice .......................................................... 81
  4.2.2 Classroom Climate ....................................................................... 82
  4.2.3 Curriculum .................................................................................. 86
4.3 Learning Mindfulness: Drawing on Past Experiences ................................. 89

Chapter Five .......................................................................................... 94

5 Personal and Professional Identity ............................................................. 95
  5.1 Personal Development: Self Care ....................................................... 97
  5.2 Mind-Body Awareness ..................................................................... 100
  5.3 Clarifying Values and Beliefs ............................................................. 102
  5.4 Teaching Identity ........................................................................... 104
  5.5 The Process of Identity Development in a Secular Worldview ................. 106
    5.5.1 Interdependence Worldview in the Development of a Critical Pedagogy 109
  5.6 Summary ....................................................................................... 111

Chapter Six .............................................................................................. 112

6 Reflective Practice .................................................................................. 112
  6.1 Critique of Teacher Education Reflection .......................................... 113
  6.2 The “What” of Reflective Practice: Personal Aspects of Living and Teaching 114
  6.3 The “How” of Reflective Practice: Open vs. Directed Structure of Reflection 117
  6.4 Learning Mindfulness Requires Reflection-in-Action .............................. 120
  6.5 Summary ....................................................................................... 123

Chapter Seven .......................................................................................... 124

7 Constructivist Learning and Holistic Vision of Teaching ............................. 124
  7.1 Experiential and Practical Learning Experience ..................................... 125
  7.2 Non Striving: Letting Go of Grades .................................................... 126
  7.3 Learning to Fail ................................................................................ 128
  7.4 Holistic Perspectives of Learning and Teaching .................................... 131
  7.5 Summary ....................................................................................... 134

Chapter Eight ........................................................................................... 136

8 Social and Emotional Competence and Well-Being on Practicum ............... 136
  8.1 Stress Reduction .............................................................................. 139
8.2 Beginner’s Mind in the Classroom ................................................................. 140
8.3 Listening to Students .................................................................................. 142
8.4 Classroom Management ............................................................................. 144
8.5 Summary ........................................................................................................ 146

Chapter Nine ....................................................................................................... 148

9 Teacher Candidate Engagement in Teacher Education .............................. 148
9.1 Reducing Presenteeism ............................................................................... 150
9.2 Decreased Rumination ............................................................................... 151
9.3 Improved Interpersonal Relationships ........................................................ 154
9.4 Positive Student Experience ...................................................................... 155
9.5 Implications ................................................................................................. 157

Chapter Ten ......................................................................................................... 159

10 Conclusion & Implications .......................................................................... 159
10.1 Learning, Learning to Teach, & Teaching .................................................. 159
10.2 Pedagogy of Well-Being ............................................................................ 162
  10.2.1 Mindfulness as an Emerging Disposition in Adult Development ......... 163
  10.2.2 Content Knowledge: Mindful Wellness as the Inner Curriculum .......... 169
  10.2.3 Exploring Mindfulness from a Child Developmental Perspective .......... 172
  10.2.4 Mindfulness-Based Strategies ................................................................. 174
  10.2.5 Mindfulness as an Intervention for K-12 Students .............................. 177
  10.2.6 The Process of Learning & Change in Teachers and Education .......... 178
  10.2.7 Example of Pedagogy of Well-Being ..................................................... 181
10.3 Awake in the Classroom: Literacy of Mindfulness .................................... 183

References .......................................................................................................... 186

Appendices ........................................................................................................... 204
List of Tables

Table 4.1  Comparing Past and Present Assignments in MBWE
Table 4.2  Engaging Students in MBWE
Table 4.3  Backgrounds When Learning Mindfulness
Table 5.1  Personal & Professional Identity Development
Table 6.1  Skills and Awareness of Reflective Practice
Table 7.1  Constructivist Learning Informs a Holistic Vision of Teaching
Table 8.1  Social and Emotional Competence and Well-being on Practicum
Table 9.1  Teacher Candidate Engagement in Initial Teacher Education
List of Figures

Figure 2.1  Wellness Wheel
Figure 3.1  Iterative Process of Teaching and Researching
Figure 10.1  Pedagogy of Well-Being
Figure 10.2  Wellness as an Educational Initiative
Figure 10.3  Continuum of Learning in MBWE
Figure 10.4  Systemic Approach to Enhancing School Wellness
List of Appendices

Appendix A. Participant Demographics

Appendix B. Participant Recruitment Email

Appendix C. Interview Questions

Appendix D. Example of Teacher Candidate Holistic Lesson Plan Assignment
Chapter One

1 Introduction

Teacher education has traditionally focused on three main areas: content knowledge, instructional repertoire, and development of disposition (Fullen & Hargreaves, 1992; Darling-Hammond et al., 2005; Grant, 2008; Cochran-Smith, 2001). All three are integral components to teacher education, yet understanding disposition, methods of developing and assessing disposition are still under scrutiny (Levine, 2007; Damon, 2007). Further, the influence of dispositional development, on content knowledge and instructional repertoire for example, remains an elusive area in teacher education (Koeppen & Davison-Jenkins, 2007; Murray, 2007; Katz & Raths, 1985; Johnson & Reiman, 2007). Disposition has been understood as habits of mind, or trends in teachers’ actions and judgments in multiple contexts (Katz & Raths, 1985; Johnson & Reiman, 2007; Borko, Liston & Whitcomb, 2007). The National Council for Accreditation of Teacher Education (NCATE) (2006) presents disposition as professional attitudes, values, and beliefs in support of student learning and development and when interacting with the school community. In 2000, NCATE made disposition a more focal requirement for accreditation (McKenna, 2009); since then, disposition has enjoyed heightened interest within the research literature. For example, research has elucidated appropriate dispositions for effective teaching, which include being empathetic and caring, having a positive attitude and holding high expectations for students, and demonstrating reflectivity and being a lifelong learner (Evans & Nicholoson, 2003; Major and Brock, 2003; Ryan and Alcock, 2002). Although these studies report on important characteristics of disposition, findings lack a comprehensive understanding of how disposition is cultivated within teacher education. Furthermore, it remains unclear how disposition relates to other areas of the profession, i.e., both the development of curricular content knowledge and instructional repertoire. This begs the question of how disposition informs the bigger picture within initial teacher education.

1.1 Preparing the Person for the Profession

Developing disposition focuses on preparing the person for the profession. Even though personal development in teacher education has been identified as a key part of effective teaching (Kosnick
& Beck, 2009; Connelly, Clandinin & Fullen, 1993; Danielewicz, 2001; Alsup, 2006), this dimension of teacher education has been least attended to explicitly and systematically. It is commonplace within ITE to ask teacher candidates to identify qualities of an effective teacher (i.e., kindness, patience, empathy, etc.). However, from my experience in teacher education, what seems to be lacking is a more enduring effort to reflect on these capacities, and see how they might be cultivated in teacher education and over the course of their professional careers.

The importance of cultivating the person for the profession is not new. Over the past 20 years, many teacher educators such as Parker Palmer (1998) in his work “The Courage to Teach,” Jack Miller’s (1994) “The Contemplative Practitioner” and Nell Nodding’s (1992) work on the caring teacher have highlighted the importance of the inner life of the teacher. Yet, little integration of these types of formalized trainings are found in initial teacher education. Palmer’s work has taken form in ongoing teacher development through multi-weekend certificate programs (http://www.couragerenewal.org/). Miller’s work has informed teacher candidates, graduate students and teacher educators through his courses and writings in teacher education. Nonetheless, a gap seems to remain in the integration of such processes within the widespread core curriculum of teacher education.

1.2 Purpose

The primary purpose of the current study was to investigate the impact of mindfulness-based training (a model of developing disposition) in the context of teacher education. The training implemented is called Mindfulness-Based Wellness Education (MBWE) and was enacted in a teacher education elective course called “Stress and Burnout: Teacher and Student Applications.” After instructing this course for two years, I began investigating teacher candidates’ experience in order to better understand the value of MBWE within initial teacher education. Below is an example of feedback I received that sparked my curiosiy to undertake this research study.

_I honestly think that the stress and burnout class should be a requirement for every student at OISE because there are so many things that I learned about how to deal with the challenges in the classroom that I never learned from the other classes. It was all about developing myself as a teacher, as a person first, and then teaching_
second. That is so important because it really affects how you teach and it affects the classroom environment. (Teacher candidate)

The secondary purpose of this study is to clarify and advance the MBWE program, in order to provide curricular and pedagogical examples for the growing number of practitioners integrating mindfulness-based approaches in teacher education and other professional preparation programs. The final overarching purpose of this study is to contribute to the emerging discourse concerning mindfulness in education. In this regard, I am interested to contribute to the discussion on models that can be helpful for integrating mindfulness within the paradigm of teacher education, and in turn K-12 education.

1.3 Rationale for Using Mindfulness-Based Training

Research studies on mindfulness, mindfulness meditation, and mindfulness-based trainings are rapidly growing in scale and in scope (see [www.mindfulexperience.org](http://www.mindfulexperience.org)). From medicine and psychology, to human development and education, mindfulness is being understood as a quality of consciousness that is both widely accessible and transmittable to people of various vocations and backgrounds. Mindfulness training is a process that teaches formal practices for cultivating present moment awareness such as meditation, as well as informal skills for reducing a wandering attention and emotional reactivity in daily life. The following section outlines my rationale for using a mindfulness-based training for this study by providing a brief introduction to research in the following two areas: (1) Personal and Professional Benefits of Mindfulness, and (2) Mindfulness Emerging in Education.

1.3.1 Personal and Professional Benefits of Mindfulness

One of the largest areas of growth within medicine and health care over the past 30 years is mind-body medicine, also known as integrative medicine (Ospina et al., 2007; Barnes, Powell-Griner, McFann & Nahin, 2004). An important area within this field has been the function of meditation as mental exercise. The role of such practices, for example, in aiding stress-related chronic diseases as well as mental health disorders is becoming more thoroughly investigated. This, in turn, has dramatically informed our understanding of the relationship between brain, mind, health and well-being within the disciplines of medicine, psychology, cognitive science
Mindfulness meditation is mental exercise; an intentional practice of attending to the present moment non-reactively. Mindfulness meditation stems from Buddhist psychology and practice, a tradition that promotes the cessation of mental and emotional suffering. Alan Wallace (2006; 2007), a Buddhist monk who lived in India under the guidance of His Holiness the Dalai Lama, and received a PhD from Stanford University in Religious studies, describes mindfulness as an unwavering awareness of the present moment; a non-forgetfulness that cultivates wholesome states of mind. In its simplest form, mindfulness is an acute awareness to the present moment; it is the ability to access and acknowledge each moment of life deeply, however quotidian or mundane (Nhat Han, 1975; 1992). Working from a psychological perspective, Bishop and colleagues (2004) operationally defined mindfulness as the self-regulation of attention with a particular orientation towards qualities of curiosity, openness and acceptance.

Mindfulness training has become commonplace within mainstream healthcare and been shown to enhance healing for a wide range of physical and mental health diseases and disorders (Baer, 2006; Grossman, Niemman, Schmidt, & Walach, 2004; Shapiro, Oman, Thoresen, Plante, & Flinders, 2007). Contemporary western psychology has found the secular practice of mindfulness meditation helpful as a therapeutic option. This has led, increasingly, to new efforts to integrate both Eastern and Western traditions of psychology (Epstein, 1995). In addition, within the field of neuroscience, studies using functional imaging of the brain (fMRI), has revealed positive structural and functional changes as a result of mindfulness training (Holzel, Carmody, Vangel, Congleton et al., 2011; Lazar et al., 2005; Davidson et al., 2003). These changes have been noticed specifically in areas of the brain related to executive function (Slagter et al., 2007), attention regulation (Jha, Krompinger & Baime, 2007), and emotion regulation (Creswell, Way, Eisenberger, & Lieberman, 2007). Attention, emotion regulation and executive function are key components in ongoing human development. They are necessary for learning to be adaptive, creative and resilient as well as enabling the development of secure relationships. As these are obviously important qualities for human service professionals, research began to inquire into the benefit of mindfulness training in the form of professional development.

Executive function contributes to higher order cognitive aptitudes that control and regulate our behaviour; this includes the capacity to initiate and stop actions, make decisions, and to monitor and change behavior as needed.
Since 2005, there is an increased interest in mindfulness training with human service professionals and in professional preparation programs such as counseling (Shapiro, Brown & Biegel, 2007; Schure, Christopher & Christopher, 2008), nursing (Cohen-Katz et al., 2005), dentistry (Lovas, Lovas & Lovas, 2008), and medicine (Shapiro, Ausin, Bishop & Cordova, 2005). Those studies begin to elucidate the professional value of training professionals in mindfulness. Aside from its impact on stress reduction, one of the main areas of interest has been in the professionals’ ability to be present with the client and to cultivate a secure relationship with the client. The presence of the professional is a key factor in developing a secure relationship, and a secure relationship is integral to the therapeutic process (Hicks & Bien, 2008; Shapiro & Carlson, 2009; Siegel, 2010b). Presence, or the ability to attend fully to the client, cultivates what Siegel (2010b) refers to as the process of attunement, a necessary part in developing a secure attachment. Although different than the therapeutic relationship in psychotherapy, the teacher-student relationship and hence the disposition of the teacher, can also be understood as integral to the healthy growth, development and learning of the student.

1.3.2 Mindfulness in Education

Most recently, research has begun to investigate mindfulness training within schools. Initial pilot studies with teachers-in-service have mostly demonstrated the personal benefits and feasibility of mindfulness training (Simon, Harnett, Nagler & Thomas, 2009; Roeser, 2010; Jennings, Snowberg, Coccia, & Greenberg, in press). Studies with pre-service teachers, for example, found that the MBWE program (the program being used in the current study) increases teacher’s physical health, mindfulness and self-efficacy (Poulin, Mackenzie & Soloway, 2008; Poulin, 2009). Those initial studies suggest the MBWE program does begin to cultivate a more mindful disposition in teacher candidates. Other research conducted with pre-service teachers has focused on the development of a new mindfulness scale – the Solloway Mindfulness Scale (SMS); a Rasch model was used to identify the developmental stages of learning mindfulness (Solloway & Fisher, 2007; Solloway & Dawson, 2010). Other theoretical research reports on the function of mindfulness as a form of skill development – one that leads toward improved classroom management, relations with students, and the ability to implement social and emotional learning curricula (Jennings & Greenberg, 2009). As well, educational psychologists have begun to conceptualize mindfulness within a framework of learning and human development (Roeser & Peck, 2009; Langer, 1997). To date, however, we still have a limited understanding as to the
potential value of mindfulness training in the preparation of teachers. The current study focuses on elucidating a more comprehensive and descriptive understanding as to the role mindfulness training can play in teacher education.

Other researchers have begun to explore the benefits of using mindfulness-based practices with children and adolescents (Burke, 2009, Hooker & Fodor, 2008, Burnett, 2009; Black, Milan & Sussman, 2009). Initial studies have found mindfulness-based strategies useful in three areas: (1) executive functioning in grade 3 students (Flook et al., 2010), (2) enhancing optimism and social competency in grades 4-7 (Schonert-Reichl & Lawlor, 2010), and (3) enhancing social and emotional behaviour in adolescents (Broderick & Metz, 2009). Additional research, however, is needed to understand more clearly the particular benefits appropriate to each age group, as well as the pedagogical strategies that are most effective in the classroom (Greenberg, 2010a).

Mindfulness-based training were created for clinical populations. These include Mindfulness-Based Stress Reduction (MBSR) for stress related illness, and Mindfulness-Based Cognitive Therapy (MBCT) for mental health populations. Teachers, however, are also in need of a program customized to their own professional demands. Since 2005, several mindfulness-based trainings for teachers have been developed. These include Mindfulness-Based Wellness Education (MBWE), Cultivating Awareness and Resilience in Education (CARE) & Stress Management and Relaxation Techniques (SMART-in-education). Whereas CARE and SMART were developed primarily for teachers-in-service, MBWE was designed for the context of initial teacher education.

1.3.3 Mindfulness-Based Wellness Education

Mindfulness-Based Wellness Education (MBWE) is the program used within this research study. Dr. Corey Mackenzie, Dr. Patricia Poulin and myself created MBWE in 2005 in response to the issue of teacher stress and burnout. Having co-developed the program, I was interested in tracing its practical implementation, and seeing how it could be refined.

My journey into this field of research began in 1999 upon entering my undergraduate studies and being introduced to the concept of holistic wellness and the practice of hatha yoga. Using wellness as a framework for my undergraduate studies, I explored the inter-relations
between mind, body and spirit through courses in health sciences, psychology, philosophy and environmentalism. My passion for wellness was channeled into summer camp programs for adolescents called “Drummer’s Peace” and a project called, “The Wellness Bus.” These initiatives were meant to facilitate greater awareness and experience of holistic well-being. I then completed my Master’s of Education degree at OISE/UT in holistic education in December 2005. My final research paper, entitled Mindfulness-Based Wellness Education (MBWE) (Soloway, 2005), was an attempt to synthesize my previous studies on wellness with current research on Mindfulness-Based Stress Reduction. That paper introduced MBWE as a program for teachers, and outlined a preliminary overview of the program.

In 2006, MBWE became the curriculum taught within a nine week, 36 hour elective course at OISE/UT titled, Stress and Burnout: Teacher and Student Applications. Teacher candidates were taught mindfulness practices in class and encouraged to keep up a regular mindfulness practice throughout the week as homework. Teacher candidates are also given a wellness workbook to fill out on a weekly basis; reflections are meant to explore various dimensions of wellness including, physical, social, emotional, mental, vocational, ecological and spiritual. A wellness wheel was the main metaphor used in the course. Each week, teacher candidates explored a different aspect of wellness through the lens of mindfulness. Initially, MBWE was primarily focused on supporting teacher candidates in cultivating their own personal well-being both throughout the course and while on practicum. The MBWE program also taught, secondarily, how to integrate learning on mindful wellness with students. MBWE is further described in the literature review, in a previous publication (Soloway, Poulin, Mackenzie, 2010), and will be described in further depth in chapter four.

My own learning of mindfulness contributed to the development this study; participating in ongoing mindfulness meditation retreats and trainings including a one-month silent retreat at the Insight Meditation Society (IMS)\(^2\), and being a participant at the Mind and Life Summer Research Institute three consecutive years from 2008 – 2010.\(^3\)

\(^2\) IMS is one of the founding centres in North America offering mindfulness meditation retreats (www.dharma.org).

\(^3\) Mind and Life Summer Research Institute is a week-long collaboration among developmental scientists, neuroscientists, educational researchers and practitioners, and contemplative practitioners exploring current questions and research in the field of contemplative science (www.mindandlife.org).
1.4 Research Questions

Being in the unique position as instructor of MBWE in the Initial Teacher Education program at OISE, I used the “Teacher Stress and Burnout” course as the context for this study. This study takes place over three consecutive semesters applying an action research design. Considering I began with a wide scope, and little research existed on mindfulness training for teachers in teacher education, I used a grounded theory approach in creating my research questions, choosing participants and directing the inquiry. For interpreting the data, I created a thematic analysis of how this training was experienced by teacher candidates.

Below are my research questions:

1. What role does MBWE play in teacher candidates’ (a) professional knowledge, (b) practical teaching experience, and (c) development of disposition?

2. What are the key pedagogical strategies and curricular components of the MBWE program within the unique population and context of pre-service teacher education?

1.5 Theoretical Framework

The educational theory framing this study is Holistic Education. The following sections introduce holistic education, and provide examples of how it is being implemented within the current educational system.

1.5.1 Holistic Education

Holistic Education is an educational approach that maintains a primary purpose of whole child development, with vocational preparation being of secondary importance (Miller, 2010; Forbes, 2003; Miller, 1990). A holistic approach to education is embedded in a philosophy and pedagogy that seeks to nurture the whole student – mind, body and heart. In this way, holistic education offers a response to what is deemed to be a narrow and fragmented approach to schooling, one that too often leaves children disconnected both from themselves and from the world around them (Miller, 1996; Forbes, 2003). The underlying principle of holism is that the whole is greater than the sum of its parts, a philosophy of interdependence that is shared with many wisdom
traditions worldwide. Forbes (2003) describes this quality of interdependence as “ultimacy,” in representing the ultimate nature of things. According to holistic education (Miller, 2006), an experience of interdependence is the catalyst in developing a greater disposition towards social justice and equality. Holistic education is thus focused on facilitating students’ praxis of interdependence, and uses contemplative exercises such as mindfulness meditation as a critical processes for human development.

A pedagogy for learning holistically further balances experiential and conceptual learning. An experiential form of learning cultivates knowledge from the first-person perspective. This is contrast to a second-person perspective whereby students are forced to internalize ideas already processed by other forms of authority (often referred to as the banking approach to education, (Friere, 2002). The purpose of holistic education is not simply to prepare students to be productive in society; rather, holistic education cultivates the engagement between the inner and outer life, forming a more substantial bond between the individual and his or her community. A holistic approach to K-12 education includes teachers going through their own process of personal and professional growth, and working to embrace a mindful way of being in their life and work (Miller, 1994). The work of developing the “whole teacher” is seen as a foundational part of holistic teacher education, as disposition of the teacher shapes the overall pedagogical choices that are made in a given classroom. In this way, a whole teacher is an integral component to the development of a healthy child. The section that follows illustrates current educational examples that employ a holistic perspective.

1.5.2 Holistic Movements in Education

The Association for Supervision and Curriculum Development (ASCD) is a non-profit, non-partisan educational organization composed of leading educators from 136 countries. It has recently launched the Whole Child Initiative. a program which attempts to widen our systematic conception of achievement and accountability, ensuring that children are healthy, safe, engaged, supported, and challenged. ASCD’s initiative is focused on shifting the “bottom line” in education from academic grades to wider markers that indicate and promote well-being because education that is based on narrow markers of achievement and accountability often leaves the whole child behind. Their mandate aims to create a new paradigm for evaluation – holding schools and teachers accountable – not only for reaching certain levels of reading and writing,
but also for nurturing students’ health and well-being (http://www.ascd.org/programs/The-Whole-Child/The-Whole-Child.aspx).

Another holistic movement in education comes from the field of school-based prevention; a research agenda that promotes evidence-based curriculum addressing growing rates of child and adolescent health and mental health problems (Greenberg, 2010b; O’Connell, Boat, & Warner, 2009). Social and emotional learning (SEL) is an example of an evidence-based curriculum that develops different competencies in education, (Association for Supervision and Curriculum Development, 2007; Greenberg, Greenberg, Weissberg, O’Brien, Zins, Fredericks, Resnik & Elias, 2003). According to leaders in the Collaborative for Academic, Social and Emotional Learning (see http://www.casel.org/), SEL is developmentally appropriate instruction facilitating students’: self-awareness, emotional intelligence, concern for others, responsible decision making, positive relationships, and ability to handle challenging situations effectively.

Research has shown that SEL is fundamental to children's healthy social and emotional development, academic learning, and motivation to achieve (Zins, Weissberg, Wang, & Walberg, 2004; Payton, Weissberg, Durlak, Dymnicki, Taylor, Schellinger & Pachan, 2008). Mindful awareness has become a central practice within many social and emotional learning programs in schools with students (Lantieri, 2008; Schonert-Reichl & Stewart Lawlor, 2010).

Building from a focus on SEL for students is an increasing awareness of SEL for teachers. Patricia Jennings and Mark Greenberg (2009), teacher educators and researchers in the field of Social and Emotional Learning, propose a model of teacher social and emotional competence (SEC) and well-being and suggest mindfulness training as an avenue for cultivating teacher SEC and well-being (to be discussed in greater length in chapter two). Another initiative focusing on SEL of teachers is a new association entitled “Affective Teacher Education” (Leblanc & Gallavan, 2009). This association highlights the missing affective dimensions of teacher education and the importance SEL can play in developing the dispositions, skills, and knowledge of beginning teachers. Given the evidence demonstrating enhanced social and emotional aptitudes developed through the experiential practice of mindfulness, using mindfulness training as a holistic model to develop teacher disposition seems promising.
1.6 Scope and Limitations of the Research

My own interest in MBWE has now extended from program development and course instruction to research and further development. As mentioned above, I have tried as much as possible to harness this multifaceted capacity to make improvements to the course over a span of three semesters. With regards to research, however, I have also tried to use my role as instructor as a position from which to conduct a thorough qualitative analysis. In this regard, being on the “inside” has provided a rich variety of experiences and perceptions by which to generate new insight into the program.

One central assumption underlying this study is my belief that mindfulness-based training has the potential to inspire transformative growth and development in adults. This assumption had been previously informed through my own mindfulness practice, teaching experience, and reading. Transformative learning refers to a process in becoming aware of one’s assumptions and expectations within oneself, and of others: Transformation includes a shift in perspective or paradigm changing the way one relates to self, and in the world (Mezirow, 1991). My role in this study was to gather evidence in order to articulate how mindfulness training served teacher candidates in their process of teacher education. I wanted to move the conversation beyond matters of teacher stress and burnout, and to show how mindfulness can be seen as a part of a much broader holistic shift within our current approach to education.

Stylistically, I have tried where possible to allow the course experience to speak for itself. I have included numerous quotations from interviews, reflections from coursework, and stories from the classroom. I conducted this study over three semesters, interviewing seven or eight teacher candidates per semester, for a total of 23 interviews. Although my intention was to reflect a common experience, many of the themes in this study may not be true for all teacher candidates who participated in the MBWE program. Findings are less likely to fit experiences of teacher candidates’ who took the course but didn’t fully engage in the course materials. In my experience as a student learning mindfulness, and teacher of mindfulness, fully engaging in mindfulness practices is essential for rich learning and clear understanding, which is why the secondary focus of this research is to facilitate teacher candidates’ engagement in MBWE by improving the program.
1.7 Outline of the Dissertation

In chapter two I outline three sections in reviewing the literature: (1) Mindfulness in the 21st Century, (2) Issues in Teacher Education related to Mindfulness, and (3) Rationale for Mindfulness Training within the context of Holistic Education. The first section begins with a more thorough background of research focused on mindfulness. This includes therapeutic benefits of mindfulness practice, and an introduction to mindfulness-based training for professional development. The second section presents research related to teacher education, with specific emphasis on questions that have a potential link to mindfulness. The third section concludes chapter two by developing a relationship between mindfulness and holistic education. By discussing the “what” and “how” of holistic education, I draw out spaces that are relevant to learning mindfulness. Those theoretical models provide a context for better understanding the research outlined in the remaining chapters. The methodology in chapter three provides detail into my grounded theory approach to the study, and explains how and why I used an action research design. This methodology section concludes with an in-depth overview of the processes used for analyzing the data. Chapter four presents findings related to the second research question; highlighting key curricular and pedagogical components of the mindfulness-based wellness education program that facilitate teacher candidate engagement and learning. This chapter provides a comprehensive overview of MBWE, setting the context for findings related to the primary research question in the following chapters. Chapters five through nine provide a more humane depiction of the course itself, presenting the voices of teacher candidates through five major themes found in this study: (1) Personal and Professional Identity, (2) Reflective Practitioner, (3) Constructivist Learning and Holistic Vision of Teaching, (4) Teacher Social and Emotional Competence and Well-being on Practicum, (5) Teacher Candidate Engagement in Teacher Education. Chapter ten discusses the conclusions and implications of this study. This chapter begins with an overview of the study and key findings. The next section presents pedagogy of well-being, what I consider to be a central implication that emerges from this study. Pedagogy of well-being is illustrated in a model that I put forward in order to articulate the role of mindfulness training in preparing teachers holistically. There are three main components of the model: Mindful Teacher, Inner Curriculum and the Outer Curriculum, and a fourth element of the model that describes how mindfulness-based strategies can be used to integrate the inner and outer curriculums. Those dimensions of pedagogy of well-being are meant to map onto the
three overarching elements of teacher education: Disposition, Content Knowledge, and Instructional Repertoire. The second part of chapter ten brings this dissertation to a close with final reflections on human development and mindfulness as a literacy; providing both an ending for this study, as well as a beginning for future research.

### 1.8 Key Terms and Definitions

**Mindfulness** – A non-conceptual quality of consciousness that arouses awareness of present moment faculties such as body, mental formations (thoughts), and emotions. Also referred to in this study as mindful awareness.

**Mindfulness Practice** – The intentional exercise of mindful awareness, both through formal meditational discipline, and through an informal attunement to the particularities in one’s own daily experience.

**Mindfulness Training** – A formalized program for teaching mindfulness practice. This includes a focus on bodily, emotional, and mental awareness. Typically run over multiple weeks as a psycho-educational intervention in a group setting.

**Well-Being** – Reflecting the eudaimonic perspective that happiness is about moving toward excellence and positive functioning within all aspects of one’s life (i.e., a balanced integration of physical, social, emotional, mental, ecological, vocational and spiritual dimensions of one’s experience). Mindfulness is viewed as an integral component to well-being, referred to explicitly in this study as mindful well-being; bringing a compassionate presence to all dimensions of one’s life.

**Holistic Education** – Theory of education that emphasizes whole child development, and is framed by a teacher, and teaching strategies that emphasize interdependence between the head, heart and hands.

**Teacher Disposition** – Overall inclination or habitual tendency in mind and heart that are conducive for effective teaching.

**Teacher Education** – Teacher education is used interchangeably with initial teacher education in this study, referring to the academic program leading to a bachelor’s of education degree.
1.9 Summary

Mindfulness training is increasingly recognized as an psycho-educational intervention for human service professionals. The popular Mindfulness-Based Stress Reduction (MBSR) program has been running in a secularized public health care system over the past 30 years. This makes it plausible to suggest that techniques used to reduce stress and enhance well-being would be a valuable asset to teachers and the wider system of education. The purpose of this study is to create a clearer picture of what this integration might look like, specifically how mindfulness training may contribute to the dispositional development, content knowledge and instructional repertoire of new teachers. I inquire into teacher candidates’ experience in a program called Mindfulness-Based Wellness Education (MBWE), in order to better understand the potential of mindfulness training in teacher education. An action research design is further used to improve the MBWE program.
Chapter Two

2 Review of the Literature

This chapter reviews relevant literature that frames and informs this grounded-theory research study. Three sections make up this chapter: (1) Mindfulness in the 21st Century, (2) Issues in Teacher Education related to Mindfulness, and (3) Rationale for Mindfulness Training within the context of Holistic Education. The first section presents an overview of the literature on mindfulness in relation to its integration into western medicine, science and professional training. The first section also provides the justification for further research needed on mindfulness in teacher education. The second section identifies key issues within teacher education that have been identified within the literature, and that mindfulness training may be able to address. The final section situates mindfulness training within a widening curriculum agenda in education, by discussing the “what” and “how” of holistic education.

2.1 Mindfulness in the 21st Century

Mindfulness, and mindfulness meditation, have become increasingly popular in Western society over the past thirty years. A search in the US National Library of Medicine found that in 2009 over 160 articles were published on each topic, (mindfulness and meditation) in peer-reviewed journals. The numbers have been increasing over the past 10 years. The number of grants from the National Institute of Health (NIH) in the United States, supporting this research has also increased (Vago, 2010).

The concept of mindfulness and the practice of mindfulness meditation referred to in this study stem from the Eastern wisdom traditions and Buddhist Psychology. Terms related to mindfulness are also discussed from Western wisdom traditions and western psychology. Although the traditional concept and practice of mindfulness stem from the East, we have seen a proliferation of mindfulness-based practices in the West over the past 25 years. For example, yoga is a practice of mindfulness that has been integrated into Western culture. The traditional foundation of yoga is mindfulness; using one’s breath to stay present in the body, while moving the body into different postures or asana. In Sanskrit, asana means “seat”, or to “sit down”. Yoga
can be understood as finding your seat (presence) in every position. In the West, the popularization of yoga has lead to the proliferation of many different styles of yoga. The physical practice of yoga as exercise is more often the primary focus in the West, whereas the mental and spiritual components of the practice are less understood or practiced. In many of the mindfulness-based interventions currently being used in western culture, mindful yoga is one of the mindfulness practices taught.

The following section follows the growing investigation of mindfulness and mindfulness practice in western academic research. The subheadings that follow include: Therapeutic Benefits in Medicine and Mental Health, Science of Mindfulness, Higher Education & Human Service Professionals, and Mindfulness Training for Teachers.

2.1.1 Therapeutic Benefits of Mindfulness in Medicine & Mental Health

Extension of research completed over the past 30 years demonstrates the therapeutic benefit of mindfulness-based interventions within various populations. Initial mindfulness studies in the 1980’s found benefits for clinical populations suffering from chronic pain and stress (Baer, 2003; Grossman et al., 2004). The original mindfulness-based program within health care is called Mindfulness-Based Stress Reduction (MBSR), created by Jon Kabat-Zinn and colleagues at the University of Massachusetts Medical Centre in 1979. MBSR is typically run as an eight-week (30 hour) intervention teaching mindfulness meditation. Participants in MBSR are encouraged to keep up a daily forty-five minute meditation practice on their own, complete weekly worksheets and read Kabat-Zinn’s (1990) book, Full Catastrophe Living.

The growing amount of research on MBSR is advancing our understanding of the mind-body connection in relationship to health and healing. Health and healing is generally associated through accessing homeostatic regularities of bodily systems such as balancing the sympathetic and parasympathetic nervous system (Kabat-Zinn, 1990; Sapolsky, 2004). Mindfulness is effective at reducing stress because it helps a person remain non-reactive to potential stressors; a form of cognitive reappraisal. For example, patients with chronic pain learn to distinguish the

---

4 For comprehensive listing of publications on mindfulness, mindfulness training and meditation see http://www.mindfulexperience.org/publications.php.
sensations of pain from the thoughts identifying with the pain. Distinguishing thoughts from sensations helps to reduce the mental suffering, which also in turn reduces the feedback loop continuing to activate the stress response.

The stress response, also known as “fight or flight,” is a biological response that is triggered in the mind-body. For example, the stress response is seen in animals such as the zebra when being hunted by a lion. During the stress response, all available physiological resources are allocated to the systems in the body responsible for ‘flight’, such as increase in heart rate to pump blood to muscles as the zebra literally flees for its life away from the lion. When the zebra escapes from the threat of the lion, the stress response shuts down and returns to balance. The stress response becomes problematic for humans because it is triggered over and over again in response to innocuous daily events like traffic jams. Typically humans are not running away from a threat in order to stay alive, yet our bodies get flooded with the same physiological stress response as if they are, like in the case of the zebra. Over time, as the stress response is chronically triggered, and one’s physiology is activated with stress hormones such as cortisol and epinephrine (adrenaline), the systems within the body and brain break down and function less optimally (Kabat-Zinn, 1990; Sapolsky, 2004). That said, not all stress is bad. Dr. Hans Seyle (1974) coined the term eustress to refer to an optimal amount of stress that helps us meet challenging demands. The key distinction is the tipping point from when one perceives oneself to be in control or taking a safe risk, to when one feels out of control by the demands of the situation.

Automatic behaviour can often chronically trigger dis-stress in the body-mind. Automatic behaviour refers to acting without full conscious attention. For example finding yourself ruminating on negative thoughts throughout the day while tensing your neck and shoulders. This type of automatic behaviour keeps the physiology of the body stimulated at heightened levels of arousal, and the excess stimulation (the stress response) breaks down regulatory systems and even the ability to shut down the stress response. The practice of coming back into the present moment by grounding attention in the body with the breath is a form of self-regulating the parasympathetic nervous system back into balance with the sympathetic nervous system. We can therefore see the relationship between automatic behaviour and meta-awareness. Meta-awareness enables one to become conscious of the contents of their own mind. Mindfulness is a non-conceptual knowing that enhances meta-awareness by helping to create
clearer distinctions between thoughts and emotions, thoughts and self, and thoughts and emotions as events (Segal, Williams & Teasdale, 2002). Becoming aware of the subtle appraisals one is making of their current situation is an important inhibitory step required for regulating ones reactivity and decreasing stress.

Mindfulness has also become a formidable intervention with mental health populations (Teasdale et al., 2000; Schwartz & Begley, 2003). Segal and colleagues (2002) co-authored Mindfulness-Based Cognitive Therapy (MBCT) for depression relapse, which is a program modeling off MBSR with adaptations for mental health populations. MBCT is a combination of MBSR and Cognitive Behavioural Therapy (CBT). CBT is regarded as a leading psycho-educational intervention for mental health populations including mood disorders such as depression (Beck, 1979, Dobson, 1998). Whereas in CBT, patients learn to identify and evaluate the rational value of thoughts, MBCT promotes a non-analytical approach to thoughts, as patients become more aware of thoughts arising and falling away in consciousness, and learn to allow them to pass without reacting to them. The power of being able to witness the activity of the mind without getting caught up in the contents of the mind, enables the release from unhelpful behaviors, reduces the occurrence of those thoughts, and also accesses greater states of relaxation. A main premise in MBCT is “thoughts are not facts.” Learning to witness thoughts and let them go without reacting as though they are true, or false, is a critical step toward in freeing oneself from undesirable habits of mind. With the growing interest in the therapeutic value of mindfulness, mindfulness-based interventions have continued to be created and researched with various populations such Mindfulness-Based Art Therapy (MBAT) with cancer patients and their family (Monti, Peterson, Shakin Kunkel, Hauck et al., 2006; Ledesma & Kumano, 2008), Mindfulness-based Eating Awareness Training (MB-eat), focused on eating disorders, (Kristellar, Baer & Quillina-Wolever, 2006), Mindfulness Childbirth and Parenting (MBCP) with pre-and post natal woman and parents (Duncan & Bardacke, 2010).

2.1.2 Science of Mindfulness

The relationship between mindfulness and stress illustrates the mind-body connection, and has become an increasingly popular area of interest within the field of neuroscience. A traditional approach to studying the brain holds the belief that everything we call mental (including emotions) is a manifestation of brain activity. According to this perspective, the entire mental
realm is reduced to physical events. Ramon Cajal, Nobel Prize recipient in Medicine in 1906 described the brain as follows. “Nerve Pathways are something fixed, ended and immutable. It is for the science of the future to change, if possible, this harsh decree” (1928, p. 750). Present day science did find a way to change this harsh decree through the discovery of neuroplasticity. Neuroplasticity is a principle illuminating the malleability of the brain and how the brain changes in response to stimuli and experience (Davidson, 2009). Books have recently been written based on the principle of neuroplasticity such as: “Train the Mind, Change the Brain” (Begley, 2008), “The Brain that Changes Itself” (Doidge, 2007), and “The Mindful Brain” (Siegel, 2007), to name a few. Mindfulness training equips patients with the capability to resist habitual patterns of behaviour and neural activation, which is suggested to initiate neuronal rewiring. This in turn stops the reactive neural pathways from gaining further reinforcement and begins to create new, more helpful patterns of response. This infers that mind has the capability to change the brain, which in turn changes the mind. Given this new understanding of neuroplasticity, it is inaccurate to reduce the understanding of mind simply to brain activity, as we now see a bi-directional arrow of influence between the two. Understanding the reciprocal relationship that takes place between the brain (which includes body), mind and environment is complex and underlies what it means to be human.

To more fully explore the potential of neuroplasticity, experts who study the brain have come together with experts who study the mind creating a new field called Contemplative Science (Wallace, 2007). Contemplative Science is an emerging field of study that investigates how training the human mind using contemplative practices leads to improved cognition, emotional well-being, health and social attunement. Wallace (2007) explains, “the Latin term contemplatio, from which “contemplation” is derived, corresponds to the Greek word theoria. Both refer to a total devotion to revealing, clarifying, and making manifest the nature of reality. Their focus is the pursuit of truth, and nothing less” (p. 1). Contemplatives have been studying the mind using the first person phenomenological perspective for centuries, and therefore have a more systematic and comprehensive understanding of mind. Meditation is the microscope Buddhist psychologists’ use for gaining insight about the mind. For example, Buddhist Psychology has provided the main conceptual and philosophical roots of mindfulness, which is now being integrated within western psychological perspective on the mind. Combining insights from first person perspectives of trained Buddhist monks with the third person perspective of
leading neuroscientific equipment opens new opportunities for understanding the mind-brain relationship. Many studies referenced later in this section come from the field of contemplative science.

### 2.1.2.1 Psychological Perspectives of Mindfulness

Psychology is the study of the mind; a discipline that uses the very topic of investigation to study itself. Western psychology has traditionally described attributes of mental states, and a dis-eased mind, without focusing a great deal on the nature of mind itself. Daniel Siegel, an educational psychiatrist and leader in helping to translate mindful awareness using a framework of interpersonal neurobiology often speaks about a missing definition for mind within western psychology. Dr. Siegel (2007) defines mind as, “a process that regulates the flow of energy and information” (p.5). Mindfulness meditation is an exercise that provides a first person experience of mind as a process that regulates the flow of energy and information. Siegel (2007) proposes how the mechanism of meta-awareness interacts with processing of information in the brain.

When individuals refine the ways in which they see the fabric of the mind itself it becomes possible to intentionally alter the flow of mental experience. In this way, seeing the mind with more depth and clarity of focus would allow the mind – the regulation of the flow of energy and information – to be transformed (p. 259).

The cultivation of mindfulness, or what Siegel (2010a) refers to as mindsight, leads to further insight about the nature of mind, thoughts and emotions.

Interestingly, the word Buddha means ‘awake,’ which is a helpful guide in coming to understand mindfulness in the context of a quality of consciousness. The opposite of being awake is being asleep, not being consciously aware. This relation to being asleep is understood as mindlessness, when our experiences of the world (e.g. perceptions, behaviours) are regulated by habitual reactions triggered outside of conscious awareness. Mindlessness is being caught up in the automaticity of life (the processing of energy and information) without awareness of it. For example, when we are driving our car on the highway and we get lost in thoughts, 15 kilometers can go by without really being attentive to what we are passing. We are thankful for these times we are able to operate on auto-pilot. Another example of mindlessness occurs when walking on a path in the forest and getting to the end of the path and not really knowing the
diversity of the forest you just walked through because you were caught up in the contents in your mind more than the information in the present moment. There are some similarities we can draw between mindlessness and falling asleep in bed at night. When dreaming at night, one is not aware in the moment that they are dreaming (except for the experience of lucid dreaming), and the experience of the dream seems as though it is real. So too, when running on auto-pilot in our lives, the experience seems real, and yet there are moments of experience that feel richer, vivid or more alive; moments when we feel more awake.

Ellen Langer, an educational psychologist at Harvard University popularized the concept of mindfulness within educational psychology. Whereas Mindlessness is described by Langer as automatic behaviors that preclude attending to new signals, entrapment in old categories, and action that operates from a single perspective, mindfulness includes the continuous creation of new categories, openness to new information and awareness of there being more than one perspective (1989). Langer acknowledges that her approach to mindfulness draws from a western psychological perspective not from Eastern contemplative traditions or practice. In her book, *Mindful Learning*, Langer (1997) describes learning mindfully as openness to novelty, alertness to distinction and sensitivity to different contexts. Mindful instruction includes the use of conditional language vs. absolute language, relevant material vs. irrelevant material, and engagement of problem solving behavior vs. rote memorization. Langer’s description of mindfulness is helpful in distinguishing the concept of mindfulness, especially in the translation to the educational context, yet her work does not develop a clear understanding in what is needed to nurture the propensity to be mindful.

Mindlessness, in the sense of habitual reaction taking place outside of our awareness, may begin to sound like a mystical approach because it is hard to appreciate what you don’t know you don’t know. However, mindful awareness has less to do with ungrounded assumptions and hypotheses and more to do with a science of mind. Western Psychology has traditionally focused on the contents of consciousness, whereas a mindfulness perspective brings focus to the contexts in which the contents are expressed (Brown, Ryan and Creswell, 2007). Currently, a Western psychological perspective of Mindfulness is further investigating how shifting the ‘context’ aids in understanding the ‘contents’ for healthy functioning. To further explore the concept and function of mindfulness, it is helpful to distinguish between mindfulness as a state and as a trait.
2.1.2.2 Mindfulness as a State

Mindfulness as a state points to a quality of presence and embodiment in the moment; a quality of consciousness that gives rise to a greater range of experience including awareness of thoughts arising from moment to moment. Attaching terms and labels to mindfulness is difficult as a state because it is known experientially, which is distinct from conceptual knowing. A verse in the Tao Te Ching, a Chinese wisdom text, says, the tao that can be spoken is not the real tao (LaFarge, 2002). This quality of consciousness is inherent within our capacity as a human being and is related to the distinctive characteristic of our species: self-awareness. The evolution of consciousness goes hand-in-hand with the evolution of human beings, and we are still uncovering new ways of understanding this evolution and ways that the brain – body – mind – environment work together in creating experience (Varela, Thompson and Rosch, 1991). For example, many neuroscientific studies using functional magnetic resonance imaging (fMRI) of the brain, indicate greater activation in the frontal area of the brain, called the Prefrontal Cortex (PFC), during meditation (Davidson et al., 2003; Creswell et al., 2007). The PFC is the last area of the brain to fully develop both in the developing human and in evolutionary terms, and is thought to be one of the areas of the brain active when self-aware; a functionally unique capacity of the human species: In a state of mindfulness, it seems that the PFC is one of the main structures functioning during that experience. The PFC is also known as the “CEO” or executive of the brain. Behavioral and cognitive functions of the PFC include: controlling impulses, inhibiting inappropriate behaviour, initializing appropriate behaviour, attention, making decisions, empathy and insight (Siegel, 2007). Accessing the state of mindfulness within daily experience is possible, although these areas of the brain and mode of information processing are exercised less often.

Another way to understand the state of mindfulness is in relation to information processing. In his book “Social Intelligence,” Daniel Goleman (2006) discusses the distinction between processing information in the brain automatically verses intentionally using the distinction between a low road and high road.

*The low road’s automatic processes appear to be the brain’s default mode, whirring along day and night. The high road mainly kicks in when these automatic processes are interrupted by an unexpected event, by a mistake, or*
when intentionally grappling with our thoughts, such as in making a tough decision. In this view, much or most of our stream of thought runs on automatic, handling the routine while saving what we must mull over, learn or correct for the high road. Nevertheless, if we so direct it, the high road can override the low, within limits. That very capacity gives us choice in life (p.322).

We can understand mindlessness as operating on the low road. Similarly, Brown and colleagues (2007) describe a conceptual mode of processing as including awareness of sensory information, and perceptual reactions to sensory information. Perception is an automatic reaction coloring our experience, which provide adaptive benefits, yet also reduces ability to simply experience sensory information without triggering thoughts, memories or emotions. Kabat-Zinn’s definition of mindfulness, ‘non-judgmental awareness of the present moment’, is the antithesis of how we as humans typically function in daily life. A lot of human experience is consistently framed by automatic perceptual judgments of sensory information with regard to ourselves, and others. There are not many tools to navigate the incessant commentary that is continually filling our moment-to-moment phenomenological experiences, as we become trapped operating in our habitual patterns of thoughts and emotions. Mindfulness, on the contrary, is a state we can learn to process into in order to relate to thoughts and emotions. Mindfulness meditation can be described as scaffolding used to develop the state of mindfulness. The practice of states, develops into traits, and traits coincides with regulatory patterns in the nervous system contributing to therapeutic benefits, a discussion that continues in the following section.

2.1.2.3 Mindfulness as a Trait

A trait refers to a characteristic or property of some object; a learned pattern of activity similar to the earlier discussion of disposition. Research investigating the trait mindfulness intends to explain the behavioural benefits of continuing to cultivate the state of mindfulness. It is helpful to think of mindfulness as a mode of being, rather than explicit behavioural tendencies. Reducing mindfulness to a specific behaviour would place it in a conceptual box, which limits our understanding of mindfulness. Numerous self-report psychological instruments exist that measure mindfulness as a trait such as the Mindfulness Attention Awareness Scale (MAAS) (Brown and Ryan, 2003), and the Five Facet Mindfulness Questionnaire (FFMQ) (Baer, Smith, Hopkins, Krietemeyer & Toney, 2006). Many randomized control studies include one or more
of these measures of mindfulness as a way of recording change in the mindful disposition of participants.

Studies using images of the brain investigate the neurobiology of the trait mindfulness in seeking to understand changes in the default system of the brain. In contrast to acute periods of mindfulness practice (mindfulness as a state), the default system refers to the baseline function of the brain when not engaged in explicit mindfulness practice, described by Goleman earlier as the low road. Does the brain learn to process information in a different way as a result of engaging in ongoing mindfulness practice? If we think of the relationship of the brain and mind as the continual exchange of energy and information, shifting the default mode and integration of systems can have a profound shift in one’s ongoing experience of the world. For example, studies have shown positive structural and functional changes in the brain of long-term meditation practitioners compared to novices (Lazar et al., 2005). Changes include brain regions associated with attention, interoception (sensitivity to stimuli originating inside of the body) and sensory processing. A long-term meditation practitioner is defined as having completed a minimum of 10,000 hours of meditation practice. Another study with long-term practitioners measuring brain waves found increased levels of gamma frequency in resting measures of brain waves: Gamma brainwave activity has been associated with having high levels of intelligence, being compassionate, having high amounts of self-control, and feelings of natural happiness (Lutz, Greishar, Rawlings, Ricard & Davidson, 2004). A final study found that long-term meditation practitioners showed greater activation in areas of the brain associated with attention and response inhibition and less activation in regions related to discursive thoughts compared to novice meditators (Brefczynski-Lewis, Lutz, Schaefer, Levinson and Davidson, 2007). Those studies are important examples of the neurobiological changes taking place in the brain as a result of ongoing meditation practice.

Neuroscience research has also documented positive outcomes from mindfulness training for attention (Jha et al., 2007; Lutz, Slagter, Dunne, & Davidson (2008), emotion regulation (Crewell et al., 2007), working memory (Jha, Stanley, Kiyonaga, Wong, & Gelfand, 2010) and executive functioning (Slagter, et al., 2007). Executive function contributes to higher-order cognitive abilities that control and regulate abilities and behaviors such as the ability to initiate and stop actions, and to monitor and change behavior as needed. All of those cognitive capacities play a key role in everyday functioning, and in teaching and learning. Studies have also
investigated the psychological benefits of mindfulness practice including areas related to identity and self. The following section looks at how mindfulness relates to notions of self.

### 2.1.2.4 Self & Human Development

Western and Eastern wisdom and psychological traditions have long asked questions about the nature and nurture of self. For example, stemming from a Greek philosophical perspective is “Know Thyself.” Eastern wisdom such as Buddhist psychology, grounds within ‘know no-self’ (Varela et al., 1991). Puzzling as this dichotomy may seem on the surface, the commonality that exists between them, namely the self, is a foundational element within the process of human development across the lifespan and deeply embedded within the practice of mindfulness.

Martin Buber (1937), in his discussion of the I-It and I-Thou relationship speaks to different modes of engagement in and with the world. Through the lens of I-It, the I is distinguished as separate and distinct from It. In the I-Thou, I is known in relation to thou, not distinct from. Many spiritual traditions reaffirm this point of interdependence and refer to the importance of the “higher self” in which duality fades away in creating an experience of union between self and other.

The I-It, otherwise known as a more self-centered mode of I, is more commonly associated with individualistic capitalistic societies. The constant striving in capitalistic society feeds the insatiable egotistical I. Even though our fragmented mode of self seems to be reinforced within Western culture, this mode of selfhood seems to also be part of the human condition. The practice of mindfulness is rooted in a tradition over 2500 years old, which began in a different societal context and system from capitalism in the West. Siddhattha Gotama, more commonly today known today as Buddha, deeply investigated the mind and self using a first person phenomenological perspective in an attempt to alleviate the roots of human suffering, which he described as stemming from a strict identification with the self-centered I. Gotama taught the practice of mindfulness meditation as an intentional act of learning to let go of strict identification with the more egotistical self.

Conceptually, letting go of strict identification with self speaks to shifting the contexts of consciousness versus shifting the contents. Mindfulness practice works on the level of shifting the contexts from which one relates to the contents; a mechanism of transformation in working
with mental health populations that has been identified as reperceiving, or decentering (Segal et al. 2002). Reperceiving is described as the ability to shift perspective and expand outside of one’s more narrow focus of attention; to dis-identify with one’s thoughts (Shapiro et al., 2006). Typically in mental health disorders such as depression, patients become focused on negative self-centered thoughts and have difficulties letting go from that identification.

Reperceiving at the level of self and other is inherent to the process of human development. Shapiro and Carlson (2009) theorize that shifting perspective of self relates to other mechanisms of self-actualizing potentials such as self-regulation, values clarification, cognitive, emotional and behavioural flexibility. Robert Kegan (1982, 1994), a developmental psychologist at Harvard University bases his “evolving self” theory in human development over the lifespan on the relationship between self as subject versus self as object. Growing into higher levels of human development, self is experienced more as object, whereas the distinction between self and other is diminished therein embodying a greater sense of relational interconnectedness, and in turn mental complexity.

To further clarify the mechanisms of mindfulness, Vervaeke and colleagues (2010) explored the mechanism of “non judgment” as a way of letting go and coming to relate differently to our thoughts, emotions, and sense of self. Moving from a language of describing the practice of meditation to a language of explaining the practice, non judgment involves the process of becoming less representational in one’s processing of information; practicing non judgment includes moving from the message of representation to the medium of presentation (Vervaeke, 2010). The practice of mindfulness is staying with the direct experience of sensation in the body, being described as the medium (experienced as heat) without getting caught up in the message (pain). Staying present is the practice of staying with the medium of experience while continuously scaling attention to multiple levels of sensory input. For example, in this moment you can scale your attention to include the sensation of your fingers, your feet whereas before they were not in your present field of awareness. This scaling of attention is a helpful way of thinking about staying with a difficult experience and not getting caught up in reactivity and turning away, such as what happens when regulating emotion. The practice of staying with and accepting difficult emotions is not resigning to these emotions, but rather learning to stay with the direct sensation of the emotion in the body, and not getting lost in the conceptual interpretations of those sensations. This process being described of scaling attention does not
ignore or repress challenging emotions, there is a recognition and acceptance of what is, yet there is also a decreased level of reactivity to the stimulus; a skill that can very beneficial when in the midst of teaching a class with challenging behaviour arising.

Investigating the neural substrates of self at the University of Toronto, Farb and colleagues (2007) compared brain activation in a group of participants who went through an 8-week MBSR to a wait-list control. Self-reference across time, referred to as narrative self, was compared to momentary self-reference, referred to as experiential self. The study found that participants who went through the MBSR training increasingly utilized areas of the brain associated with the experiential self. These biological markers of self are not simply reducing self to an area in the brain but rather identifying different areas of the brain related to self that are active in processing information when more mindful.

Roeser and Peck (2009), create a similar distinction in self by describing the “Me” self and the “I” self by using an automatic/volitional continuum in their basic levels of self (BLOS) model. The “Me” self is aligned closer to the automatic end of the continuum and associated with information being processed in a top-down fashion whereas the “I” self is aligned closer to the volitional end of the continuum with information being processed more intentionally as bottom up. Human development is a continual process that extends throughout the lifespan. The whole spectrum of Self can be developed, likely depending on the types of experiences to which one is exposed. Contemplative practices such as mindfulness meditation are examples of exercises that nurture information being processed in a more volitional way, reinforcing a greater phenomenological sense of the experiential “I.”

Understanding mindfulness within human development is still in beginning theoretical stages, yet cultivating mindfulness does appear to be a key quality of consciousness that promotes positive growth and development of self or no-self in adults. Although teacher education spends a great deal of time teaching about child development to teacher candidates, the theory on which teacher education itself is based rarely looks to theory on adult development. If mindfulness does indeed play a role in adult development, than learning mindfulness in teacher education may be able to play a key role in professional practice. The next section explores this very question within other human service professions.
2.1.3 Higher Education & Human Service Professionals

College and university students have become another target population for mindfulness training to address the rising levels of stress and mental health problems on campuses in the U.S. and Canada. In a recent study tracking changes over a ten-year period, Guthman (2010) found that the percentage of students with moderate to severe depression who sought counseling at a U.S. campus increased 7 percent from 1998 to 2009. The study also found that the number of students on psychiatric medicines increased more than 10 percentage points. In 1998, 11 percent of the clinical sample reported using psychiatric medications, mostly for depression, anxiety and Attention Deficit and Hyperactivity Disorder (ADHD). In 2009, 24 percent of those attending counseling reported using psychiatric medications. A similar study in Canada over three years found that not only are more students getting help, but also there is a trend in problems becoming more serious (Cairns, Massfeller, & Deeth, 2010).

Research on mindfulness training has expanded to elucidate potential benefits with populations within higher education. Shapiro and colleagues (2008) conducted a literature review on the benefits of meditation in higher education and found the following three themes: cognitive and academic performance, mental health and psychological well-being, and development of the whole person. Many of the studies reviewed offer mindfulness-based programs through the student services health and wellness office at the university. These types of programs have become increasingly popular for a student population undergoing intensive periods of stress, and maturation.

Mindfulness-based interventions are also being implemented in professional preparation programs for human service professionals. Findings include personal and professional benefits with medical students (Shapiro et al., 2005; Saunders et al., 2007), counselors in-training (Schure et al., 2008; Shapiro et al, 2007), and nurses (Cohen-Katz et al., 2005). One of the main professional findings suggests that mindfulness has the potential to facilitate a positive relationship between therapists and their clients (Hicks & Bien, 2008). Mindfulness training not only supports the self-care of the professional, reducing stress and burnout in at-risk populations, but also plays an enabling role in the therapeutic relationships with clients.

The therapeutic relationship is a critical dimension in the healing process, and yet the training in skills in order to develop such a relationship is often overlooked in the preparation of
human service professionals (Lambert & Barley, 2001; Hicks & Bien, 2008). The therapeutic relationship points to the ability of the therapist to attune with the client; to connect at a deeper level. Golemen (2006) describes attunement as “attention that goes beyond momentary empathy to a full sustained presence that facilitates rapport” (p. 86). The process of attunement draws on the literature from Attachment Theory. Secure attachment, is a term used in Attachment Theory (Bowlby, 1988), whereby a child feels felt and has a secure attachment with a parent/caregiver. Siegel (1999) highlights that a secure attachment in early years leads to prefrontal integration in the brain, which plays an important role in regulating healthy emotional and interpersonal skills and cognitive flexibility. Prefrontal integration refers to long strands of the prefrontal neurons reaching out to distant and differentiated areas of the brain. Again, this is happening in response to the experience of a secure attachment – a process of attunement – that is similar to the feeling of safety and connection between therapist and client supporting healing and insight. Siegel (2007) hypothesizes that the same social circuitry that is able to attune with others is also potentially able to work on the level of attuning within oneself, what he calls intrapersonal attunement. Further, he asserts that one’s ability for intrapersonal attunement enables interpersonal attunement. Siegel further suggests that mindfulness practice strengthens intrapersonal attunement. This understanding aligns with the more traditional purpose of mindfulness practice of befriending oneself and self-compassion. Training in mindfulness has the potential to strengthen the capacities for attunement necessary for nurturing the therapeutic relationship. Although the teacher – student relationship is different than the therapist – client relationship, we can begin to recognize a potential value of mindfulness training enhancing teachers’ ability to relate and connect with students, which is known to be an important part of the learning process.

Shapiro and Carlson (2009) in their book, “The Art and Science of Mindfulness - Integrating Mindfulness into Psychology and the Helping Professions”, outline three approaches: (1) The Mindful Therapist, (2) Mindfulness-Informed Therapy, and (3) Mindfulness-based Psychotherapy. Those levels of integrating mindfulness into therapy begin to demonstrate a model for multiple levels at which mindfulness is integrated into a professionals skill set. The mindful therapist outlines how a therapist practices mindfulness meditation in preparation for their work, as well as continues the informal practice while meeting with clients. Mindfulness-informed therapy infuses mindful principles such as acceptance and letting go into the therapy,
while mindfulness-based psychotherapy teaches the client the practice of mindfulness meditation. Understanding multiple levels for integrating mindfulness training into professional practice has potential implications for teaching.

Mindfulness has also been integrated into training for dentists at Dalhousie University. Lovas and colleagues (2008) propose that mindfulness training improves levels of professionalism, wherein elements contributing to professionalism include self-awareness, acceptance and wisdom. The authors go on to describe how mindfulness training targets the development of those elements contributing to professionalism. Acceptance is described as being fully present without being self-absorbed, which is related to their ability to connect with their client. Further discussed, is the potential of cultivating greater attentiveness in class, because a lack of attentiveness leads to failure in optimizing learning opportunities (Lovas et al., 2008). Mindfulness training is beginning to demonstrate benefit to therapeutic practice and professional preparation; the current study seeks to gain insight into the value of teaching mindfulness in teacher preparation. The next sections outlines a few preliminary studies evaluating the impact of mindfulness training with teachers and teachers-in-training.

2.1.4 Mindfulness Training with Teachers

Preliminary studies with teachers going through MBSR training have begun to articulate the personal benefits such as reduced levels of stress, depression and anxiety (Reibel, 2007; Gold et al., 2010). A pilot qualitative study with four elementary teachers new to mindfulness found the training was useful to: (a) aid in curriculum development and implementation, (b) deal with conflict and anxiety, (c) improve the quality of their personal lives, (d) facilitate positive changes in the classroom (Napoli, 2004). Translating mindfulness training into the realm of teacher education has brought forth numerous new mindfulness-based programs created specifically for teachers: Mindfulness-Based Wellness Education (MBWE), Cultivating Awareness and Resilience in Education (CARE), and Stress Management and Relaxation Techniques (SMART) in Education. The intention of this discussion is not to try and point out the most effective program, but rather to identify key attributes of these programs, unique populations in which they are working and current research being done on them. Following a brief description of each program, important similarities and distinctions will be highlighted and discussed.
2.1.4.1 Mindfulness-Based Wellness Education (MBWE)

The MBWE program, the training being investigated in the current study, was created at the Ontario Institute for Studies in Education of the University of Toronto (OISE/UT) in the fall of 2005. Responding to the increasing rates of teacher stress and burnout, and the growing proliferation of mindfulness-based interventions for clinical populations, Dr. Corey Mackenzie, Dr. Patricia Poulin and myself collaborated in designing a new mindfulness-based program targeting human services professionals, specifically teachers-in-training at OISE/UT. MBWE is taught within the framework of a nine-week (36 hour) elective course titled: “Stress & Burnout: Teacher and Student Applications” within the initial teacher education program at OISE/UT. MBWE is currently running in its 5th year at OISE/UT, and due to increasing popularity the program is currently being offered in both fall and winter semester.

To complement the MBSR program, MBWE uses a wellness wheel (see Figure 2.1) as a health promotion framework to communicate the principles and practices of mindfulness. The MBWE experiential curriculum uses the lens of mindfulness to explore a new dimension of wellness and teaching strategy each week of the course. For example, in week two the focus is on exploring social wellness and practicing mindful listening that can be applied with students, parents and colleagues. Student teachers participate in 20-minute mindfulness practices in class and at home, in complement to filling out a wellness workbook, and selected weekly readings (Soloway et al., 2010). A two-year study found increased mindfulness and teaching self-efficacy among MBWE participants compared to a control group. In addition, improvements in mindfulness predicted improved teaching self-efficacy and physical health ratings immediately after training (Poulin et al, 2008; Poulin, 2009).
2.1.4.2 Cultivating Awareness and Resilience in Education (CARE)

The CARE program was developed in 2007 by Patricia Jennings, Christa Turksma, and Richard Brown for teachers in pre K–12. The CARE intervention is based on the “Pro-social Classroom” model (Jennings & Greenberg, 2009), including its four broad intervention aims: (1) improvements in teachers’ overall well being, (2) improvements in teachers’ effectiveness providing emotional, behavioral, and instructional support to students, (3) improvements in teacher-child relationships and classroom climate and (4) increases in students’ pro-social behavior. The CARE intervention achieves these aims by utilizing three primary instructional components: emotion skills instruction, mindfulness/stress reduction practices to help teachers be more aware, present and engaged; and compassion and listening practices to improve teacher’s ability to listen and care (Jennings, 2011).

The CARE program has been presented in numerous formats: Two, 2-day training sessions; four, 1-day sessions; and a five-day intensive retreat. During time between sessions, care facilitators provide emails and individualized coaching sessions over the phone as participants begin to practice and apply learning from CARE into their teaching.
As to research findings, The Prevention Research Center at Penn State University in partnership with the Garrison Institute received a two-year award in 2009 from the U.S. Department of Education Institute for Educational Sciences to complete the development and in-depth evaluation of CARE in school districts in Central Pennsylvania. Preliminary findings from two pilot studies completed, (one completed with experienced teachers and the second with student teachers and their mentors) illustrate promising results related to improvements in teachers levels of mindfulness, well-being, and in using a more autonomy supportive motivational orientation in the classroom (Jennings, Snowberg, Coccia, & Greenberg, in press). Further, experienced teachers who completed the CARE training in the first study were highly satisfied with the training, felt they were now better able to manage their classrooms and maintain supportive relationships with students, and that this type of professional development should be made for all teachers (for complete results see Jennings et al., in press).

2.1.4.3 Stress Management and Relaxation Techniques in Education

Stress Management and Relaxation Techniques (SMART) in Education is a professional development program for in-service K-12 teachers and administrators. The SMART-in-education program was created by Margaret Cullen through the sponsorship of the IMPACT Foundation (see www.theimpactfoundation.org/). SMART is modeled off MBSR, and includes the following four foundational elements in the curriculum: (1) concentration, attention and mindfulness, (2) awareness and understanding of emotions, (3) empathy training and (4) compassion training (Roeser, 2010).

The program design is made up of eleven meetings over eight-weeks, including two daylong sessions. Participants are assigned 10-30 minutes of mindfulness practice daily. This program primarily focuses on the personal dimensions of the teacher. Through deep personal learning and transformation, benefits are then naturally embodied and transferred into the classroom. Teachers report that their attendance in the program has had a positive influence on their classrooms, interactions with students and coworkers. SMART is currently being run in the Vancouver School Board as part of an extensive research study.

SMART in education is currently being piloted in Colorado and Vancouver. Preliminary findings illustrate high rates of program completion and satisfaction, and teachers report that SMART has a positively influenced their interactions with students and co-workers. Further,
compared to waitlist controls, teachers going through SMART reported increased mindfulness, decreased occupational stress, and increased work motivation from pre- to post-intervention (Roeser, 2010; Jennings, Lantieri & Roeser, in press). SMART is beginning a more extensive study in the Vancouver School Board in conjunction with another mindfulness-based training called MindUp, which is a curriculum for teaching mindfulness to students.

This beginning section of the literature review provides an overview of the research on mindfulness, mindfulness meditation and mindfulness training in medicine, health care, professional development and most recently education. There are currently many school based programs, associations, and research agendas investing mindfulness in K-12 education for students. Although outside of the scope of this literature review, I do introduce a few main programs being implemented with students in later chapters. For a review of mindfulness-based programs for children and youth see Biegel and colleagues (2011) forthcoming white paper on the topic. Teacher education is a gateway for what gets implemented in K-12 education, and therefore further research is needed to better understand the implications of mindfulness training in teacher education. In addition to being of personal benefit to teachers, the following section explores the potential professional benefits of mindfulness training in teacher education.

2.2 Issues in Teacher Education Related to Mindfulness

This section identifies key contextual issues in teacher education that are being used to frame the relevance for mindfulness training, for example the poor perception of teacher education within academic institutions and in public perception (Labaree, 2004; Levine, 2006; Cochrane-Smith, 2001). One of the foremost authorities in teacher education, Linda Darling Hammond (2006), outlines the overarching problem.

*Teacher education has long been criticized as a weak intervention in the life of a teacher, barely able to make a dent in the ideas and behaviours teachers bring with them into the classroom from their own days as students. . . . Although there are certainly accounts of teachers who have valued their preparation, more popular are stories of teachers who express disdain for their training, suggesting that they learned little in their courses that they could apply in the classroom, or*
that if there was any benefit to their training it was to be found primarily in student teaching. (p.6)

A report entitled “Teacher Education in Canada” authored by Crocker and Dibbon (2008) cite 20 different studies outlining the perceived inadequacy of teacher education programs, highlighting this problem of not knowing if teacher education is on the right track. Teacher education in the United States also continues to acknowledge change is needed and seeking to advance the field of better preparing teacher candidates for the classroom. In a recently released report from the National Council for Accreditation of Teacher Education (NCATE, 2010), titled Transforming teacher education through clinical practice: A national strategy to prepare effective teachers, one common criticism is that new teachers are not able to transfer their learning from teacher education into the real world of the classroom, and are thus ill prepared for the realities of teaching. One point is clear, teacher education has more work to do in creating engaging and meaningful learning experiences for teacher candidates that prepare them for the classroom.

Darling-Hammond (2006) proposes two challenges inherent to teacher education that contribute to the perceived dissatisfaction of the training: apprenticeship of observation, and enactment. In the paragraphs that follow, I outline those challenges and propose ways that mindfulness training may be valuable.

2.2.1 Apprenticeship of Observation

Teaching may be one of the most difficult professions to be trained in because all teacher candidates have already experienced at least 16 years of formal schooling, in the presence of teachers – being taught, therein creating a notion of what it is to teach, a problem identified by Lortie (1975) as the “apprenticeship of observation.” Kennedy (1999) describes the problem of the apprenticeship of observation.

“Experiences in primary and secondary schools give student teachers’ ideas about what school subject matter is like, how students are supposed to act in school, and how teachers are supposed to act in school. Thus, when they begin to teach, they adopt the practices of their former teachers.” (p. 55)

Many teacher candidates enter their teacher education programs with the notion that they already know how to teach and all they need to learn are some teaching strategies. “Good teaching looks
like the ordering and deployment of skills, so learning to teach looks like the acquiring of the
don’t see in their 16 years as a student.

... the thinking that preceded the teacher’s action, the alternatives they
considered, the strategic plan within which she located the action, or the aims she
sought to accomplish by means of that action. These are the things that teacher
preparation programs seek to teach, and legitimately so; but in doing so, they run
into enormous resistance from teacher candidates who don’t think they need this
kind of professional development. (p. 58)

Here, Labaree is referring to the meta-cognitive skills teacher education seeks to teach. Meta-
cognition enables you to articulate why you are doing what you are doing; how one is coming to
the decisions they are coming to. Darling-Hammond and colleagues (2005) also describe the
importance of meta-cognition in the process of self-regulating and becoming adaptive experts in
the classroom. The problem is that a teacher candidate who is simply looking for the strategies to
be a good teacher builds cynicism toward a teacher education program that is highly based on
learning to think like a teacher: Preconceptions of what it means to teach reduces a sense of open
mindedness and engagement in learning to teach.

Lortie (1975) outlines how the apprenticeship of observation perpetuates more of the
same in teaching, whereas teacher education is supposed to be the avenue for bringing about
change.

Unless beginning teachers undergo training experiences which offset their
individualistic and traditional experiences, the occupation will be staffed by
people who have little concern with building a shared technical culture. In the
absence of such a culture, the diverse histories of teachers will play a cardinal
role in their day-to-day activity. In that respect, the apprenticeship of observation
is an ally of continuity rather than of change. (p. 67)

Even as teacher candidates enter their practicum experience, many continue to imitate old
patterns of teaching, such as those modeled by the associate teacher rather than implementing
what they have been learning in their coursework. One of the reasons for this may be because
teacher candidates are concerned with getting a positive evaluation from their associate teacher so teacher candidates adopt the style of teaching already taking place in the classroom. Teacher candidates observing their associate teacher in the classroom may readily dismiss the academic coursework as theoretical and not practical in the classroom. Kennedy (1999) further describes the roadblock the apprenticeship of observation causes for teacher education reform.

*If teachers must draw on their apprenticeship of observation in order to learn to teach, then most reform proposals are doomed. Reformers will not improve teachers’ practices by changing the caliber of people who enter the profession, for teachers of all kinds bring the same apprenticeship to their work. Nor can they improve teaching practice by changing the number of course credits teachers are required to take in one subject or another, or by changing the rewards and sanctions that govern teachers. Reformers can change teaching practices only by changing the way teachers interpret particular situations and decide how to respond to them.* (p. 56)

Here Kennedy identifies the perceptual level at which reform must work in order to bring about change. Sykes, Bird and Kennedy (2010) further point out “learning to teach in ways other than conventional practice would of necessity involve complex processes of unlearning then relearning, but no theory or practice has yet discovered a powerful means for supporting such learning” (p. 467).

Mindfulness influences a level of perception and thus may be able to more directly intervene with problems caused by the apprenticeship of observation. For example, a central principle within mindfulness training is “beginner’s mind”. Beginner’s mind is a practice of experiencing each moment as if it were your first time, instead of getting caught up in habitual thinking patterns and ways of seeing the world. Apprenticeship of observation is an example of getting caught up in thoughts about the past that cloud the present, therefore teacher candidates practicing beginner’s mind may be a helpful way to break free from the past conditioning of what it means to teach and stay more open to new perspectives being introduced in teacher training. Mindfulness practice is essentially a process of enhancing self-awareness, and becoming more conscious of what one is doing and why one is doing it.
The hidden curriculum is a related concept in education that speaks to the “unintended outcome of the schooling process” (MacLaren, 2003, p. 212), and “underlying norms, values, and attitudes that are often transmitted tacitly through the social relations of the school and curriculum” (Giroux, 2001, p. 51). An example of the apprenticeship of observation in relation to the hidden curriculum is the experience of K-12 education focusing mainly on intellect, and the educative process therein reinforcing a greater disconnection between mind and body. By this I am referring to the emphasis on cognitive learning that is mainly transmissive compared to a more holistic view of education that includes a more student centered approach to developmental areas such as social and emotional. Further, schooling is often experienced as a stressful experience when there is always too much to accomplish. This experience typically continues right through teacher education, where as teacher candidates experience their learning within a stress-filled context. Many teacher candidates may never experience what learning is like within a calm classroom environment. The experience of mindfulness training within teacher education is an opportunity for teacher candidates to be in a classroom that embodies a greater level of present moment awareness and ease; learning about learning in an experiential way.

2.2.2 Enactment

The problem of enactment surfaces from the tension created between theory and practice. Practice teaching assignments are only part of teacher education, and are an opportunity for the theory to be put into practice. Certain levels of learning theory need to be tied to practice for the theory to make sense because it requires interaction and feedback from students. “Learning how to think and act in ways that achieve one’s intentions is difficult, particularly if knowledge is embedded in the practice itself” (Darling-Hammond, 2006, p. 37). This problem is difficult to solve and speaks to a lot of the frustration many teacher candidates refer to as “teachers college being too theoretical”. Ball and Forzani (2009) call for greater movement toward practice-based teacher education that focuses on practicing the skills of teaching and not simply talking about the skills.

A practice focused curriculum for learning teaching would include significant attention not just to the knowledge demands of teaching but to the actual tasks and activities involved in the work. . . . It would not settle for developing teachers beliefs and commitments; instead it would emphasize repeated opportunities for
Ball and Forzani (2009) go on to further distinguish the terms ‘training’ from ‘education’ and posit that we need to look at preparing teachers more as a training in certain areas because it refers to a systematic discipline in developing proficiency in a skill based area. Advancing the professionalism of teacher education may include a clearer curriculum, as well as a specified training of skills and cognitive competencies that underlie necessary skills. A training approach brings greater clarity to a systematic process teachers must go through in developing the skills, competencies and knowledge for becoming successful teachers. “The work of teaching includes broad cultural competence and relational sensitivity, communication skills and the combination of rigor and imagination fundamental to effective practice” (Ball & Forzani, 2009, p. 497).

Although this call for a training approach may sound too close to a model of high-stakes testing for accountability, I think the call for training is an interesting paradox when the focus of the training is on relational sensitivities and emotional intelligence. Social and emotional competencies are not a specific set of behaviours one has to learn, rather teacher education can develop specific processes for teacher candidates to go through that have been shown to cultivate these competencies.

It’s important to recognize that the challenges within teacher education are common to other professional training programs because professional training programs are a bridge between two distinct worlds - student and practitioner. Professional training programs are not simply based on skills and content knowledge; there is a foundation of theory and pedagogical development that underlies effective teacher education to help student teachers prepare for the role they are entering into. Linda Darling Hammond (2006) says:

*Virtually all scholars of professional preparation note the difficulty of helping individuals learn the ways of thinking and acting required by a profession (how to “think like a doctor” or “reason like a lawyer”) and then translating those diagnostic and analytic abilities into concrete actions in situations that are non-routine and require quick but complex judgments and hands-on skills.* (p. 34)

Given the experiential learning process teacher candidates go through in practicum, it seems reasonable that many teacher candidates fail to find value in the academic aspects of the
curriculum that are more theoretically or hypothetically based in preparing to teach and thinking about teaching. Mindfulness training uses an experiential approach that can be integrated into learning taking place at the faculties of education. The experiential nature of learning mindfulness poses an interesting juxtaposition to the problem of enactment and in turn is an interesting exploration within this study.

2.2.3 Priorities of Teacher Education

In addition to addressing problems within teacher education, mindfulness training also has the potential to nurture priorities of teacher education. A four-year longitudinal study by Kosnick and Beck (2009) followed teacher candidates after they graduated from their teacher education program. The authors identified seven priorities of teacher education, three of which are identified here: vision of teaching, professional identification and classroom community and organization. One main premise that Kosnick and Beck (2009) reinforce is the need to simplify teacher education and instead of trying to do a little bit of everything, do more in-depth work with fewer topics. Simplicity is a novel idea that seeks to reduce the hurried and stress-filled experience of teacher candidates. Although mindfulness training is an add-on, the experience of the training may support teacher candidates in slowing down and simplifying in other areas of their life as well as in the overall culture of teacher education.

In their study, Kosnick and Beck (2009) also refer to multi-tasking as an important skill teacher’s need for taking into consideration numerous perspectives, approaches and activities taking place in the classroom. Many teachers would agree that when teaching, there are multiple levels of analysis and planning unfolding moment to moment, and is a marker of an effective teacher. Multi-tasking and mindfulness appear to be apposing skills whereas multi-tasking is about doing more than more thing at a time, and mindfulness is focused staying present in the moment. From one perspective they are opposing because a mindful teacher speaking to a student is able to give them their full attention, and not thinking about what activity they are going to be doing next in the classroom. However, we can also understand the role of mindfulness in multi-tasking, in the sense of being present to the processing of multiple facets unfolding in the classroom, while maintaining presence to the classroom, as well as the function of being present in order to intuitively know the best next course of action.
Meta-cognition is another concept related to mindfulness and described as a priority in teacher education. Metacognition refers to awareness of one’s own internal processing of information, and when combined with cognitive flexibility, and insight contributes to teachers’ as “adaptive experts” (Darling-Hammond, 2006; Hammerness, Darling-Hammond and Bransford, 2005). Research on mindfulness and meditation points to the cultivation of cognitive flexibility (Moore & Malinowski, 2009; Shapiro, Brown & Astin, 2009) and insight (Vervaeke, Ng & Ellamil, 2010), so it would seem that training in mindfulness has the potential to cultivate the skills needs to be an adaptive expert.

This concludes the discussion of drawing links between key problems and priorities of teacher education and mindfulness. The final section in this chapter situates Mindfulness training within the context of holistic education.

2.3 Mindfulness in the Context of Holistic Education

In addition to the aforementioned issues in Teacher Education which mindfulness training may be able to address, it seems that mindfulness training would also be an important contribution to the curriculum of teacher education in order to prepare new teachers for the emerging holistic K-12 curriculum toward well-being. This section outlines holistic education, and then makes explicit connections between the role of mindfulness training in preparing teachers for enacting a holistic education.

The purpose and scope of K-12 public education in Canada and internationally is widening from a narrow focus on IQ to include a broader, more interconnected curricular mandate. Examples of recent curricular initiatives include: Social & Emotional Learning (SEL), Healthy Schools & Daily Physical Activity, Inclusive Education, Environmental Education, Character Education and Global Citizenship Education (GCE). Below is a quotation from a curricular document published by the Ontario Ministry of Education (2008) titled, Finding Common Ground:

*Character Development will make our vision of education truly balanced and holistic as we revisit the foundations of an equitable and inclusive public education – namely intellectual, character and citizenship development . . . it must*
be recognized that a quality education includes the education of the heart as well as the mind. It includes a focus on the whole person.

Although the descriptive words used may vary from province to state to nation, a similar mandate toward a more holistic vision of education toward well-being is being articulated by systems of education around the globe.

Holistic education is a theoretical approach grounded in a philosophy of education that exemplifies education for well-being. The primary purpose of holistic education is whole child development, with vocational preparation being of secondary importance (Miller, 2010; Forbes, 2003; Miller, 1990). Holistic education is a philosophy and pedagogy that seeks to nurture the whole student including mind, body and heart; a movement that arose in response to a narrow and fragmented approach to schooling that leaves the developing child disconnected from themselves and the world around them (Miller, 1996; Forbes, 2003). Holistic education expands from a narrow view of the developing child to a broader and more complex approach in education. Jack Miller (1996), a leading voice within Holistic Education over the past 25 years, refers to the philosophy of holistic education as building relationships within education to accurately reflect the way the world is.

Holistic Education attempts to bring education into alignment with the fundamental realities of nature. Nature at its core is interrelated and dynamic.

We can see this dynamism and connectedness in the atom, organic systems, the biosphere, and the universe itself. (p.1)

This focus on relationships is imperative given the amount of fragmentation that occurs within social systems and within ourselves.

A more holistic approach in education takes into account cultivating the multiple intelligences’ of the child – and not simply a traditional approach to linguistic and logical intelligence. Leading educational theorists such as Howard Gardner (1999) proposes multiple types of intelligences including bodily-kinesthetic intelligence, intrapersonal and interpersonal intelligence. Daniel Goleman also (1995, 2006) contributed in highlighting the importance of social and emotional intelligence popular in educational settings. Theory of multiple intelligence draws attention to the different types of intelligence that can be developed, and calls attention to
specific ways of learning in which individual students may excel. Holistic education would serve
to cultivate a number of these intelligences, including introspection and reflective competencies
of intrapersonal intelligence and connection with nature through naturalistic intelligence.
Broadening from a narrow view of intelligence to include a more inclusive and diverse approach
to learning may be a valuable way to help more young people be successful in their K-12
educational experience, and then later on in life. In the following section, I further discuss the
“what” and “how” of holistic education and begin by presenting key definitions of curriculum.

2.3.1 The “What” of Holistic Education

Curriculum is an educational term that seems to have grown to include the expansiveness of the
educational experience so we must understand the distinctions between the formal, enacted and
hidden curriculum. In traditional terms, curriculum referred to the “what” that was to be studied,
the subject matter and course content that was to be covered including a plan of action or a
written document that includes strategies for achieving desired goals or ends (Ornstein and
Hunkins, 2004). This definition is now more accurately referred to as the formal curriculum.
The enacted curriculum is more in line with the broad definition of curriculum as it refers to the
overall educational experience (Dewey, 1938), including the pedagogy of the teacher and the life
of the student within the school context (Conelly & Clandinin, 1988). Darling-Hammond and
colleagues (2005) define the broad notion of curriculum as, “the learning experiences and goals
the teacher develops for particular classes – both in her planning and while teaching – in light of
the characteristics of students and the teaching context” (p.170). Students, school context,
interactions within the school and classroom also make up the enacted curriculum, as they are
part of the teaching and learning experience. Pedagogy, or the ‘how’ in education, focuses on
how the teacher prepares, the teacher’s underlying beliefs and worldview, and how the subject
matter occurs in the activities, materials, and assignments that the teacher selects and develops.

An important distinction exists between the formal curriculum and pedagogy as two teachers
who are using the same formal curriculum can enact it in very different ways.

In the subheadings that follow, I briefly outline some of the curricular mandates that
exemplify the expanding formal curriculum. Included are examples of mindfulness-based
practices being used in relation to these curricula, suggesting the diverse application of
mindfulness training for teachers in preparation for the formal curricular mandates of the 21st century.

### 2.3.1.1 Social & Emotional Learning

A major contributing force to the widening curricular mandate stems from research linking Social and Emotional Learning (SEL) in students with positive behaviour, attitude toward school and academic achievement (Payton et al., 2008; Zins, Weisberg, Wang & Walberg, 2004). In Goleman’s (1995) popular book, “Emotional Intelligence”, he explained happy well-adjusted children are able to learn better and are more likely to be happy and well-adjusted later on in life. Further, Harvard Professor Robert Selman’s (2003) research highlights the promotion of social competence and the prevention of problems associated with impaired social development in children, youth, and adults over the past 30 years. With the increasing evidence of mindfulness practice demonstrating positive social and emotional benefits in adults, more and more SEL programs are emerging that integrate mindfulness (Lantieri, 2008). For example, the Inner Resilience Program (IR) was piloted in a Vermont school with teachers and students over a 10-month period. The Inner Resilience can be characterized as mindfulness-based social and emotional learning. Findings supported the intention to reduce teachers levels of perceived stress, to improve the quality of the interactions taking place in the classroom with students, as well as to train teachers in an IR curriculum to support their students (Simon, Harnett, Nagler & Thomas, 2009).

MindUp, previously known as Mindfulness Education (ME), is another SEL program that has been studied within the Vancouver School Board with findings showing that children who have been taught mindfulness techniques were less aggressive, less oppositional toward teachers, more attentive in class and reported more positive emotions including optimism (Schonert-Reicht & Lawlor, 2010). Over the past 4 years, MindUp has been integrated into a number of the Vancouver School Board elementary schools (note that in the past 5 years over 500 educators have been trained to implement the MindUp curriculum).

### 2.3.1.2 Healthy Schools & Daily Physical Activity

The importance of Health and Physical Education has long been a curricular subject in schools, yet recently in Canada and United States there has been a collective movement toward a greater
emphasis on Healthy Schools and Daily Physical Activity (DPA). Attention to this mandate has been increasing with the overwhelming research pointing toward the health benefits of exercise, the relationship between health and learning, as well as the rising obesity rates in children and adolescents.

The link between mindfulness practice and health and physical education (HPE) may be the most intuitive considering a growing amount of MBSR studies demonstrate the physical and mental health benefits. Kids have stress too, especially as the demands and pressures at school are increasing. With the rates of health and mental health disorders rising in younger populations (Paglia-Boak et al., 2009), integrating mindfulness-based tools into the HPE curriculum would be both a curative and preventive approach. A mindfulness-based program called BREATHE was implemented as part of the HPE curriculum within a high school in the US. In comparison to the control, participants who received BREATHE reported decreased negative affect and increased feelings of calmness, relaxation and self acceptance, as well as improvements in emotion regulation (Broderick et al., 2009). Further, there is evidence the Health and Physical Education curriculum is moving toward a more mindful approach, one that seeks to create greater unity between mind-body and holistic health (Lu, Tito & Kentel, 2009), such as the increasing number of yoga programs being found in both elementary and secondary schools.

2.3.1.3 Inclusive Education

Inclusive education is another educational initiative focused on welcoming all ranges of diversity into the classroom so that no students are singled out for any reason. Inclusive education is not a specific content area but rather an initiative that informs teaching and learning. For example, Attention Deficit Hyperactivity Disorder (ADHD) is becoming more prevalent in classrooms. Many teachers are struggling within their classrooms to support these students, as well as to maintain an optimal learning environment with continual hyperactive behaviour. Preliminary research on the application of Mindful Awareness Practices with adults and adolescents found that Mindfulness training significantly improves measures of ADHD symptoms, anxiety and depressive symptoms (Zylowska et al., 2007). More research is still needed in this area yet it seems that practices that are centrally focused on attention would be supportive to students and families with special learning abilities related to attention disorders. Mindfulness practice would
serve to benefit even those not clinically diagnosed given children and adolescents are living in a fast paced world of hyperactivity and multi-tasking.

In another study, Beauchemin and colleagues (2008) implemented brief mindfulness practices at the beginning of each class period for five weeks with adolescents labeled as having learning disabilities. Findings showed that after the five weeks, students gave themselves lower ratings on scales for anxiety, and teacher’s ratings all improved in areas of social skills, problem behavior and academics. In a qualitative study on classroom management and culturally responsive teaching that I was a part of, we found teachers described being mindful as a key attribute in culturally responsive classroom management (McCready & Soloway, 2010). Mindful was discussed as being more aware in the classroom of students, and more open to developing healthy connections with students and parents. Preparing teachers with the knowledge and skills of mindfulness may enable the integration of mindfulness practices where appropriate in order to support students in maintaining an inclusive classroom.

This section has been discussing different elements that make up the “what” of holistic education, and the relationship to mindfulness-based practices. However, addressing all these various curricula does not conclude that one is teaching holistically. The movement toward holistic education is not simply made up by what is being taught, it is also composed of how it is taught. The following section provides a brief background on the ‘how’ of holistic education, and the connection to mindfulness training for teachers developing the appropriate disposition for enacting holistic education.

2.3.2 The “How” of Holistic Education

Based on the definitions stated above, a holistic formal curriculum includes subject matter that range in focus nurturing the whole child. This includes a balance between subjects such as math, language, science, health and physical education, outdoor education and the arts. A holistic formal curriculum however, doesn’t necessarily develop a student’s multiple intelligences considering the enacted curriculum, or how the formal curriculum is taught, significantly influences the learning experience of students. I begin by discussing theory relating to the “how” of teaching holistically, and then highlight the influence of teacher disposition on the how of teaching holistically.
Miller (2001) describes a holistic teaching model using three positions: transmission, transaction, and transformation. A combination of these three teaching positions contributes to a holistic enactment of the formal curriculum. Whereas transmission (i.e. didactic) and transaction (i.e. co-operative) are common teaching approaches, transformation is often the missing teaching position in many teachers’ repertoires. The transformation position facilitates a message of interconnectedness between the student and curriculum, teacher and student, and between students; guiding a personal inquiry into Self. Miller’s (2010) most recent book, “Whole Child Education” describes transformation within the aim of wisdom and compassion in education. All three teaching positions are necessary in whole child education, which is an important reminder that even a traditional subject matter can be enacted in a holistic way.

Another way of discussing the how of teaching holistically focuses on who is teaching. In the current study, I am referring to teacher disposition as a contributing factor enabling the “how” of holistic education. Put another way, who is teaching has a significant influence on how teaching and learning unfolds in the classroom. Teacher disposition in reference to holistic education has been described using various terms: (1) the “whole teacher”, (2) “identity and integrity of the teacher”, and (3) “social and emotional competence of the teacher”. Miller (1996) describes concepts of the “whole teacher” and “contemplative practitioner” using the term presence to describe an essential quality of teacher disposition. Miller has been developing teacher disposition by teaching mindfulness and meditation in courses in holistic education over the past 25 years at OISE of the University of Toronto. Parker Palmer (1998) bases whole teaching on the identity and integrity of the teacher and uses a contemplative approach in facilitating the growth of teachers’ habits of mind and heart. The notion of teacher disposition within SEL was introduced with the concept of teacher social and emotional competence (SEC) and well-being (Jennings & Greenberg, 2009). According to this conceptualization, teacher SEC and well-being is framed within a model linking outcomes to improving the teacher – student relationship, effective classroom management and enabling SEL implementation. Ultimately, through the lens of this model, the three elements just mentioned work together with teacher disposition to build the foundation of a healthy classroom and greater student achievement. Further, mindfulness training is suggested as an intervention that cultivates Teacher SEC and well-being (Jennings and Greenberg, 2009), and co-developers of the CARE program that was previously outlined.
In summary, the importance of disposition is not a new construct within teacher education. Questions concerning disposition have been a significant guiding influence in teacher education over the past 50 years (Cochran Smith, 2001). Yet, this area of teacher education needs more research attention on best practices and models of development. Developing teacher disposition is part of the process of human development: A process that serves as a foundation for the enacted curriculum and for a holistic education. Mindfulness training has potential relevance in being “the what” in teacher education for preparing teachers to enact “the how” of holistic education. Considering research on the integration of mindfulness into education is gaining momentum, casting a wide net is necessary in order to gain a broader understanding of the hidden potentials of training teachers in mindfulness, and in developing a model for developing disposition. The current study with teacher candidates seeks to further contribute knowledge in this area by researching the experience of teacher candidates learning mindfulness within Initial Teacher Education. In order to uncover new insights in this emerging field, this study uses a grounded theory approach within an action research design. The following chapter goes into the methodology for this study.
Chapter Three

3 Methodology

The purpose of this study is to explore the value of mindfulness training in Initial Teacher Education (ITE). The two related, yet distinct guiding research questions: (1) What are teacher candidates’ experiences learning mindfulness in ITE in relation to: (a) professional knowledge, (b) practice teaching, and (c) development of personal disposition? (2) What are the key pedagogical strategies and curricular components of the Mindfulness-Based Wellness Education (MBWE) program within the context of a teacher professional preparation program? To answer these questions, this study utilizes a qualitative action research design and employs a grounded theory approach and analysis. The chapter begins with a narrative outlining my learning path and reasoning for choosing and creating this study. The following section is an overview of the research design and approach in this study. The final section provides in detail the data analysis methods and limitations of the study. Making the decision to pursue this specific research path was a journey onto its own. The next section is a glimpse into the journey I took in developing this research project.

3.1 Finding my Research Path

In the Fall of 2005, Dr. Corey Mackenzie, Dr. Patricia Poulin and I began developing and researching a program called Mindfulness-Based Wellness Education (MBWE) within ITE at OISE of the University of Toronto. MBWE was the curriculum for an elective course in the ITE program called Stress and Burnout: Teacher and Student Applications. I use the terms MBWE and Teacher Stress and Burnout interchangeably to refer to the intervention used in this study. In January 2006 we ran the first section of Teacher Stress & Burnout with a full class of 35 teacher candidates. The following September, Patricia and I taught the course again to another full class. In parallel, we ran two quasi-experimental research studies comparing teacher candidates who took Teacher Stress & Burnout to teacher candidates in another elective class. Being entrenched within the planning, teaching, evaluation, and research of this course I had a unique vantage point from which to better understand the process teacher candidates were going through in
MBWE in the context of their initial teacher education program. I am not a K-12 classroom teacher, nor have I gone through teacher’s college. On one hand, this lack of K-12 experience could be a hindrance in that I do not have the experience coping with the complexities of teaching in a K-12 class. On the other hand, this lack of experience kept me open and conceptually flexible to discovering new ways of understanding the potential value of mindfulness in the preparation of teachers and integration into the classroom. After having taught the MBWE program over two years and also having juxtaposed that teaching experience with ongoing research in the field, I realized my understanding of the MBWE program had dramatically shifted. For instance, in the first two years the MBWE curriculum never overtly discussed classroom management or the teacher-student relationship. Discussions with past teacher candidates, reading teacher candidates’ assignments, and new writings in the field guided my thinking in updating the new syllabus for Teacher Stress & Burnout to include new topics. I felt as though I had a unique opportunity to continue investigating and expanding MBWE from the inside out. That opportunity informed my research path at an early stage, especially in relation to quantitative and qualitative approaches.

3.1.1 Quantitative and Qualitative Perspectives

Over the past 25 years, research on mindfulness interventions in health care commonly used a randomized control experimental design. An experimental pre-post design typically exemplifies quantitative research that relies on an underlying positivist paradigm. Positivism is based on the epistemology of rational-empiricism that focuses on objectivity (Denzin & Lincoln, 2005). Positivism seeks to create causal relationships that can be generalized to wider populations. To maintain levels of objectivity, quantitative studies separate researcher from the research, and control the context that the research takes place in. These efforts are taken in an attempt to isolate specific parts to be able to make more accurate causal claims about what we know to be true. In comparison, qualitative research seeks to better understand phenomena within naturalistic settings, which reduces the degree of objectivity because numerous factors may be having an impact. In letting go of the need to objectively quantify, qualitative research is interested in gaining a more descriptive analysis of the phenomena that includes how people make meaning of their experience. Meaning making is more focused on process rather than solely looking at the outcome, such as in a quantitative approach. Focusing on process and meaning making is inherently a subjective experience because it requires an interpretation of events and in turn data
is represented in words, not numbers. Understanding the process of meaning making is the end goal of qualitative research whereas quantitative research seeks to articulate common truths that are applicable to wider populations. Both research approaches hold valuable yet distinct methodologies.

A qualitative research approach offered me the opportunity to account for my bias within this study, and look more deeply into teacher candidates’ experiences as a way of discovering new insight. The research I conducted in this study is qualitative, and the dissertation as a whole follows a blended approach incorporating both quantitative and qualitative perspectives. Many of the studies cited in my literature review are from neuroscience or randomized controlled clinical trials that follow a quantitative approach. Using research from multiple disciplines such as education, psychology, medicine, and cognitive science frames this study as interdisciplinary research. Qualitative researchers who use an interdisciplinary approach are described using a metaphor of bricolage, which is further discussed in the following section.

3.1.2 Bricolage

Drawing on research from neuroscience, psychology, and education from both quantitative and qualitative paradigms, as well as, using multiple qualitative methods, appropriately situates this research within the metaphor of bricolage. The French word, bricoleur, describes a handyman or handywoman who uses all available tools to complete a task (Kincheloe, 2001). Bricolage points to the importance of interdisciplinary research and weaving together multiple methods of inquiry.

_Bricolage is concerned not only with multiple methods of inquiry but with diverse theoretical and philosophical notions of the various elements encountered in the research act. Bricoleurs understand that the ways these dynamics are addressed—whether overtly or tacitly—exerts profound influence on the nature of the knowledge produced by researchers._ (Kincheloe, 2001, p. 682)

Weaving together diverse methodological approaches, and identifying underlying assumptions and limitations helps to create a more comprehensive picture of the phenomenon under investigation. Research into mindfulness is widening in scope in order to understand the biological, psychological, sociological and cultural elements, and therefore it is helpful to
explore how these varying domains can inform one another. Mindfulness is inherently a subjective experience or quality of mind, which can be understood in relation to activity and structures in the brain, indicators of health, behavior, and meaning making. Understanding the integration of these findings is the work of a bricoleur researcher in the 21st century.

In responding to the complexity of the bricolage, Kincheloe and Berry (2004) view research methods actively rather than passively, suggesting that instead of passively adopting and fitting into a methodology, a researcher must construct research methods from the tools that are most applicable. Working with this approach, the current study actively fit together methods that were most applicable for answering the research questions while taking into consideration the context in which the research was taking place.

The context of naturalistic settings is a benefit of qualitative research. Having the opportunity to teach MBWE within the Initial Teacher Education program at OISE/UT opened up the possibility for a richer and more descriptive study. Inquiring into teacher candidates’ experience within MBWE fit my unique vantage point and began to address questions that were of interest and that I thought could make a difference in helping to translate the value of mindfulness training into teacher education. Three main ideas guided my thinking. First, I wasn’t simply interested in seeing if mindfulness training reduced stress or even increased empathy in teachers-in-training because there is already good evidence to show that mindfulness-based trainings do have this impact among many populations (Baer, 2003, Grossman et al., 2004) including human service professionals (Hicks & Bien, 2008; Shapiro & Carlson, 2009). Second, studies that highlight mindfulness in the context of teacher education are just beginning and there is a need for more theoretical work to be done to better understand the wider scope of potential value that mindfulness training may hold. There are likely benefits to training teachers in mindfulness that we aren’t yet seeing, and uncovering them is essential to creating a comprehensive theoretical framework which can than be followed up with quantitative research. Third, given that many of the current studies on mindfulness are experimental in design, there is less understanding of key components of mindfulness-based training especially for non-clinical populations within professional preparation programs. Vettese and colleagues (2009) have raised concerns about research design and claims within the mindfulness literature specifically in regards to correlating dosage of participants’ home practice with therapeutic benefits. Many studies point to the outcome benefits after participating in a mindfulness-based training;
however, the potent ingredient of the intervention still seems unclear. Moving the context of the training into a professional preparation program adds more ambiguity about how and what teacher candidates are learning. For example, in the current study it is difficult to know what elements in their experience most powerfully contribute to their learning. Was it the content of the program, the process of being in a regular class meeting one day a week over a semester, or the regular practice of mindfulness? The second research question is seeking to better understand this ambiguity, as it was asking specifically about potent aspects of the course that contributed to teacher candidates’ learning experience.

Pragmatism furthered my thinking when choosing a research design as I considered different stakeholders in education and their levels of interests. The education system is complex with many diverse elements working in the system such as boards of education, faculties of education, teacher federations and ministries of education. Each stakeholder maintains slightly varied ‘bottom lines’ from one another, and ways of understanding and using research. Pre-service teachers, experienced teachers, and educational researchers have different views about knowledge, and research in education (Joram, 2007). For example, research demonstrating the stress-reducing role of mindfulness training does not address primary goals of teacher education, or of many ministries of education. Teacher well-being is more of a direct consideration for teacher federations whereas professional development in boards of education have traditionally been focused on teaching strategies for core curricular topics. The intention of this study was to articulate the emerging importance of mindfulness to diverse stakeholders in education.

3.2 Research Design & Approach

3.2.1 Action Research

The linking of the terms "action" and "research" highlight the essential features of action research; trying out ideas in practice as a means of increasing theoretical knowledge and / or improving teaching, and learning (Kemmis and McTaggart, 1988; McNiff & Whitehead, 2002). What distinguishes action research from other educational research is the teacher actively participating in the process of research, compared to a more traditional research approach where an outside researcher conducts the study without input from the teacher. This approach to research is therefore situated within a constructivist paradigm, where knowledge is developed by
the teacher - researcher based on the systematic interpretation of the teaching and learning process in their classrooms (McNiff & Whitehead, 2002). In comparison to knowledge being generated by the persons involved in the research as found in action research, a positivistic paradigm approaches knowledge as objective and that is found independently in the world.

Action research can be further defined using three broad categories: practical, participatory and emancipatory. Practical action research refers to a focus on improving teaching and learning practices in the classroom. Participatory action research highlights the potential for numerous active contributors in the research process, including in some instances students (McIntyre, 2008). Emancipatory action research addresses more broad questions in education relating to social justice and equity. Hinchey (2008) describes the pursuit of freedom within emancipatory research as “freeing people from limitations they’ve unconsciously accepted because they aren’t in the habit of asking if things must be the way they are” (p. 41). Whereas practical action research is a commonly used approach in K-12 classrooms, emancipatory action research is increasingly being found within research initiatives taking place in higher education. More generally, action research is being used as a formidable method in higher education as a way of enhancing practice and advancing theory, as well as engaging academics in their own process of professional development by being active reflective practitioners (Norton, 2009).

A central feature of action research stemming from the work of Kurt Lewin (1946), is the cyclical nature of the implemented steps. There are many models illustrating the cyclical nature of action research, all of which include an interpretation of the following steps: planning, acting, observing / collecting data, reflecting / analysis (Kemmis & McTaggart, 1988; McNiff and Whitehead, 2002; Schmuck, 2006; Norton, 2009). Various methods for collecting data are used in action research including questionnaires, interviews, personal reflections, coursework, and observation. Multiple data points may be used in the systemic process in coming to a clearer understanding of the phenomena being studied.

Numerous characteristics within the current study align with action research. For example, I carried out the roles of both instructor and researcher. As well, this study took place over three consecutive semesters of teaching and researching; over two years, I interviewed 23 teacher candidates who took the Teacher Stress and Burnout course. The primary research question was focused on advancing knowledge in the field, and the secondary research question
focused on improving teaching practice. The two research questions interconnect given the iterative process of action research. Feedback from teacher candidates’ experiences in the first round of data collection informed the teaching of the MBWE program and in turn changed the later experiences of teacher candidates taking the program as seen in Figure 3.1. Further, this study relates to emancipation in that learning mindfulness stems from a tradition that seeks inner liberation and freedom from suffering. Facilitating a process of self-awareness in teacher candidates’ can be understood within a framework of critical pedagogy, which will be explored later in this study.

The investigation into teacher candidate’s experience in MBWE was very broad at the beginning of the study, and the continued inquiry became more focused by emerging data, thus illustrating a grounded theory approach.

3.2.2 Grounded Theory

The primary purpose of this research was to create a better theoretical understanding of the role that learning mindfulness plays within teacher education. After co-teaching MBWE for two
years and reading new literature emerging in the field, I realized there was more to be understood in relation to the utility of mindfulness training in teacher education. A proven method for uncovering new findings is a grounded theory approach. Punch (2009) distinguishes between grounded theory approach and grounded theory analysis. In the section below I discuss a grounded theory approach and in the final section of this chapter I outline a grounded theory analysis. Note that research can adopt a grounded theory approach and not analysis or vice versa, I am explicitly articulating my use of both.

Grounded theory is an approach within qualitative research that is used to inductively generate theory from data. This approach is distinct from hypothesis driven research whereas the findings of the research can be interpreted as a hypothesis. The researcher is situated within the field of research in an attempt to make sense of what is taking place.

Grounded Theory allows theory to be created from first person accounts in contrast to creating a theory from previous research or from a perspective from outside of the phenomenon being studied. For example, Jennings and Greenberg’s (2009) theoretical model of the pro-social classroom and Social and Emotional Competence (SEC) of the teacher (mentioned in the chapter two) is theoretically based on previous research in contrast to being based on new data. The current investigation is based on new data and seeking to contribute to the pro-social classroom model by conducting research on teacher candidate’s experience in teacher education after going through training in support of their SEC and well-being (i. e., MBWE). I begin my inquiry into teacher candidates’ experience using three broad relevant lenses within initial teacher education: questions related to professional knowledge, questions related to practice teaching, and questions related to development of disposition. I chose these lenses because they capture the broad range of experiences within teacher education.

3.2.3 Theoretical Sampling

A unique quality of a grounded theory approach is theoretical sampling. Theoretical sampling refers to the cyclical pattern of collecting data and analyzing data on an ongoing basis with new theoretical insights informing sample selection and data collection.

*Theoretical sampling is not simply a single line, unidirectional method of moving from less to more directed observation and from specific data to conceptual*
rendition. It also requires that the analyst engage in many other operations while accomplishing the latter along multiple lines and directions, and while going back and forth between data and concept as one generates theory. (Glaser, 1978, p.37)

Theoretical sampling is a commonly misunderstood technique, one that I have grappled with in an attempt to implement. A helpful way to understand theoretical sampling is through theoretical saturation, which is regarded as the end point of theoretical sampling. Theoretical saturation is often thought of as the point in which no new themes are coming forth from the data; however, it is more accurately understood as the point when data collection is no longer providing new theoretical insights to the constructs being developed (Glaser, 1978). Researchers who are gathering new data until no new patterns appear is different from theoretical saturation because they are attempting to chart a typology of themes that emerge, whereas the focus with theoretical sampling is to continue to narrow the focus of the investigation and to simply collect data on a specific focus in an effort toward creating a coherent theory using higher level of abstraction from the data. Charmaz (2006) further articulates this distinction:

*Perhaps the most common error occurs when researchers confuse theoretical sampling with gathering data until they find the same patterns reoccurring. This strategy differs from theoretical sampling because these researchers have not aimed their data-gathering toward explicit development of theoretical categories derived from analyses of their studied worlds. Instead, the patterns describe empirical themes in their studied worlds.* (p. 201)

The iterative process in action research and theoretical sampling are also two seemingly similar terms that can be confused. The key difference between the iterative process in action research and theoretical sampling in grounded theory is that in action research the analysis is being fed back into changing an intervention whereas in theoretical sampling the analysis is informing further data collection. The current study employs both approaches. The process of theoretical sampling is emergent, therefore it is difficult to have a well laid out research plan because you cannot know which ideas you will be following before you begin analysis. “Initial sampling in grounded theory is where you start, whereas theoretical sampling directs you where to go” (Charmez, 2006, p. 100). The value of theoretical sampling is that the researcher continues in their sample selection based on new ideas from the research that are arising. Theoretical
sampling is therefore very responsive to the data which is distinct from having a very clear and laid out research design prior to starting the research. As described above, I outlined my research design of interviewing seven or eight teacher candidates per semester over the span of three semesters. I left room for flexibility in my research design to account for theoretical sampling by only interviewing seven or eight students of a class with 32-35 teacher candidates.

3.2.4 Sample

The sample consisted of teacher candidates who participated in the Stress & Burnout class (MBWE program) in three consecutive semesters, Fall 2008, Winter 2009 and Fall 2009. Teacher candidates self selected to enroll in the Stress and Burnout class. The description of the course that teacher candidates had access to prior to selecting the course did not include any mention of mindfulness practice. By signing up for Stress and Burnout, teacher candidates identified as being interested in the topic of stress, and/or looking for strategies in reducing their stress and stress of their future students. Teacher candidates were given an explicit overview of the course curriculum and expectations in the first week of the course, and given the opportunity to drop the course. There was one teacher candidate per semester who did not continue with the course after the first week, and numerous students on a waiting list trying to get into the course. Teacher candidates who ended up taking the MBWE course may be demonstrating a certain level of self-awareness and self-care practice by simply taking the course, where as many of the other elective course were focused on more traditional curricular topics.

In the first round of interviews I chose participants based on a diverse sample of teacher candidates who volunteered to participate. Diversity criteria were based on the teaching level of teacher candidates (primary / junior, junior / intermediate, intermediate / senior), gender, ethnicity, and age. Appendix A lists all the teacher candidates who participated in the interviews, along with characteristics of each participant so the reader can get a better sense of the diversity of participants. Further, when reading the findings section, it may be helpful to re-visit this table to gain a clearer picture of the person speaking. The final criteria from which I chose teacher candidates was their final grade in the Stress & Burnout class. I was interested to interview students who excelled in the course as well as those who did not. Interviewing students who did not do as well on evaluative components of the course was a strategy used to gain insight into a range of experiences in the course, and not simply students who excelled. I began my sample
selection by sending out an ethics approved information form by email (Appendix B) about the research to all teacher candidates who participated in the Teacher Stress & Burnout course inviting them to participate in the research. Sample selection for the second round of interviews followed the same procedure as the first round.

The third round of sample selection became more purposive by following the theoretical direction of the research. Jane Hood distinguishes between purposeful and theoretical sampling: “Theoretical sampling is purposeful sampling but is purposeful sampling according to categories that one develops from one’s analysis and these categories are not based upon quotas; they’re based on theoretical concerns” (as cited in Charmez, 2006, p. 101). Based upon the categories developed during the initial analysis of the prior interviews, my sampling selection became more directed toward teacher candidates’ who I thought would be able to speak to the emerging theory. Decision-making was based on my experience interacting with the students in class, and evaluating their assignments. For example, in the last group of interviews completed I chose teacher candidates’ based upon the quality of work represented in their assignments, participation in the class and personal interactions during the course. As the theoretical categories were moving into a specific direction around learning, it was important to interview teacher candidates who could provide further insight to this inquiry. With new criteria for selection in mind, I maintained a diverse sample based on teaching level, gender, ethnicity and age. An introductory email was sent to select teacher candidates always after their participation in the course was complete and final grades submitted. While participating in the Stress and Burnout class, teacher candidates were unaware that I would be requesting interviews for research purposes at the completion of the course, and had the option to participate in the interview or not. I chose to interview participants at the completion of the school year instead of after the course was completed because I wanted to gain information on the impact of the course over teacher candidates’ entire year, including the second practicum experience.

3.2.5 Interviews

I conducted semi-structured interviews with participants that lasted between an hour and 1.5 hours. Interviews were semi-structured to allow for novel insight to emerge when ensuring coverage of a specific topic (Punch, 2005). Questions were followed to direct the interviews to general topics and there was also space for participants to speak more open and freely about their
experience. I used a list of interview questions (Appendix C) and then probed participants to further expand on their comments for greater clarity and to better understand a novel response they may have been giving. In keeping with the process of theoretical sampling, the interview questions changed in response to the theoretical directions the research was taking. For example, “learning” and “reflection” were emergent themes from the first round of interviews; therefore, participants in the second round of interviews were asked more specific questions on these themes. Furthermore, teacher candidates in the third round of interviews were asked more specifically about their experience self-directing learning and engagement within their ITE program. Interviews were digitally recorded. Following each interview I wrote a memo to capture my initial thoughts following the interview. Participants were given $25 for participating in the interview as a reimbursement for their time and travel expenses required to attend the interview.

In addition to the interviews conducted with teacher candidates, three other data points informed my analysis: (a) anonymous teacher candidate feedback forms of the MBWE program filled out mid-course and at the end of the course, (b) personal reflections recorded after teaching each MBWE class and when marking teacher candidate assignments, and (c) personal reflections while I attended a one-month silent mindfulness meditation retreat. I attended this retreat during the semester that I instructed the second cohort of teacher candidates in MBWE, Fall 2009. MBWE runs the first seven weeks of the semester, followed by four weeks of practicum, when teacher candidates go into their practice teaching placements. While on pause from teaching I attended the mindfulness meditation retreat at the Insight Meditation Society (IMS), in Barre, Massachusetts. IMS is a founding retreat centre in North America offering Mindfulness retreats to the general public. By taking part in a mindfulness training of my own, I am able to collect data on my own experience learning mindfulness, and how that informs my teaching. Reflecting on my own experience learning mindfulness, and as a beginning teacher educator, contributes to the data I was analyzing from teacher candidates learning mindfulness and learning to teach.

The final section of this chapter outlines the data analysis methods used for conducting this study and identifies limitations.
3.3 Data Analysis

All interviews were digitally recorded and then uploaded onto the NVIVO 8 software program. The two main reasons I used NVIVO 8 was for its capacity to code audio files and as an organizational tool. Twenty-one interviews were conducted for this dissertation research project, while the full outline for the proposed research (outside the scope of this dissertation) is intended to follow each participant into the classroom over the following 3 years. A benefit of using NVIVO 8 is the ability to keep longitudinal qualitative studies in an organized manner and readily available to have multiple researchers working on the same project. Further benefits of NVIVO 8 include numerous query functions that do analysis identifying participants who contributed to codes based on characteristics such as demographic information. This allows the researcher to see a wider story unfolding and they are able to see if there are patterns in who is contributing to specific codes. All interviews were digitally recorded and then uploaded onto the NVIVO 8 software program.

Two different approaches are used for data analysis in this study. To analyze questions about teacher candidates’ experience learning mindfulness in their program a grounded theory data analysis is used. A more traditional typology analysis is used to interpret the second research question about pedagogical strategies of the MBWE program. In turn, I will outline each method of data analysis more fully.

3.3.1 Grounded Theory Analysis

A grounded theory analysis is followed to interpret data about teacher candidates’ experience learning mindfulness within their initial teacher education program by using three levels of coding: (1) open coding, (2) theoretical coding and (3) selective coding. At each level of coding a new set of themes emerged through increasingly theoretical connections. At first the coding is done more inductively with the final stages of theory generation done more deductively (Glaser, 1978); put another way, the process of coding defines the direction of the investigation, and then further inquiry is based in that same direction (Charmez, 2006).

3.3.1.1 Open Coding

The first stage of Grounded Theory coding is open coding. I completed this level of coding by listening to the audio file using the NVIVO 8 software. As I was listening, I was constantly...
comparing relevant sections of the audio file. After identifying a significant section I would label the audio file with a code that I created within NVIVO 8. In the first round of interviews, this process of open coding was the most intensive as I was creating all new codes, and then after developing a list of codes, I would label the quotations with an existing code or if necessary continue with the process of open coding and create a new code.

*Open coding is about using the data to generate conceptual labels and categories for use in theory building. Its function is to expose theoretical possibilities in the data. It is not about bringing concepts to the data, and no a priori coding scheme is used.* (Punch, 2009, p. 185)

In order to check for similarities I was always able to go back and listen to data segments that I attributed to each open code. I believe this is a strength of using NVIVO 8 because I have quick access to listening to other quotes that were attributed a similar code. I found the process coding the audio file directly apposed to coding the transcription to be a more effective approach because I got to stay engaged in the overall tone of the interview. Another major advantage of using NVIVO 8 was time. Instead of spending the time transcribing each interview, I went straight into the process of coding. Further, the organizational function of NVIVO 8 allowed me to visually see the codes and organize them within subthemes.

The process of open coding required me to stay objective to the emergence of new codes by making comparisons and asking questions about what the data represents or is an example of. This was a critical stage of the process because as a researcher with prior knowledge in this field, I approached the data with preconceptions of categories I would expect to see, and so I had to continually approach the data with fresh eyes, a practice I discuss further in the last section in this chapter. I noticed the roller coaster ride open coding could be; the excitement of creating new codes and the uncertainty as to the value of the codes.

### 3.3.1.2 Axial Coding

Completing open coding of the initial 8 interviews from Fall semester 2008, I began to look for initial relationships between the codes in grouping them together. Creating relationships between the open codes developed another layer of analysis. This level of analysis was the beginning of the axial (Strauss & Corbin, 2008) or what Glaser (2002) refers to as theoretical coding. “Axial
coding is about interrelating the substantive categories which open coding has developed” (Punch, 2005, p.210). Open codes from the first level of coding are interconnected with each other. Outlining the relationships between these codes are called theoretical codes. I used these newly created axial codes with the open codes, as I continued to analyze the next 7 interviews from participants in Winter semester 2009. Two axial codes emerged: Learning and Reflection that were then integrated into 2 new questions within the interview protocol. In completing analysis of the second round of interviews (15 in total) I created six themes and each had three-six subthemes. The final level of coding using a grounded theory approach is selective coding.

3.3.1.3 Selective Coding

Selective coding is the third phase of coding following a grounded theory analysis. Selective coding focuses the investigation by identifying a core category or central theme in the data. Narrowing and focusing on a central theme begins to articulate a final level of abstraction in the form of a theory (Punch, 2009). After analyzing the second round of interviews I framed my ideas about the core category into a question in my interview protocol for my third round of interviews with teacher candidates. For example, student-centred / inquiry-based / self-directed learning emerged as a central theme that I was trying to better understand and in turn I asked teacher candidates directly about their experience of student-centred / inquiry-based / self-directed learning in the MBWE program. Teacher candidates’ responses to this question helped me to further understand this core theme. This stage of selective coding ties into the process of theoretical sampling as I chose teacher candidates to interview whom I identified would be able to speak to the core category. After completing the third round of interviews I analyzed using all three levels of analysis, open coding, axial coding and selective coding. I was moving toward selective coding, which required me to continually systematize the axial codes. I was also staying open to any new codes that were arising, that may be distinct or related to themes already present. “All aspects of grounded theory analysis focus on conceptualizing and explaining the data, not on describing the data” (Punch, 2009, p. 188). A grounded theory analysis was used for interpreting data about teacher candidates’ experiences whereas a more traditional qualitative typology analysis was used to categorize data pertaining to the MBWE program specifically.
3.3.2 Typology Analysis

Identifying key curricular components and pedagogical strategies was based on categorizing responses in terms of frequency and insightfulness. For example, the most commonly reported beneficial aspect of the MBWE program by teacher candidates was the day of mindfulness practice. In addition to frequency, insightful responses that may not have been reported as often were also taken into consideration when creating the typology. For example, an interview with one teacher candidate revealed insight into the mindful teaching journal over practicum. Based on the discussion with this participant, this assignment was shifted to better accommodate the learning needs of students.

Learning key curricular and pedagogical strategies of the MBWE program improved how I taught the course, which in turn informed answers I was receiving in the interviews. This is also true of learning that was gained through the grounded theory analysis. As I was developing new insights and hypotheses about the course, I began integrating this thinking into the course design, assignments and pedagogy. This integrates key principles of grounded theory such as theoretical sampling with the iterative process of action research. This qualitative research study steps over many of the traditional lines governing “objective” research. The following section identifies and accounts for the differences involved in conducting this study. This section is often referred to as “limitations” however I prefer to call it the “elephant in the research.”

3.3.3 Elephant in the Research

The elephant in the current study that needs to be explicitly addressed is that I was the instructor of the Teacher Stress and Burnout course – interacting with students, and marking assignments throughout the each semester – as well as the researcher. Having an instructor also participating in the research creates many concerns around bias and levels of objectivity. In many forms of action research, the teacher plays a key role conducting the research, especially when the research is being done in their classroom. In this study information regarding teacher candidates’ experiences was processed throughout the whole year I was teaching the course as many of the assignments that were evaluated provided insight into teacher candidates’ process of learning. For example, three main assignments that teacher candidates completed were a personal wellness workbook, a practicum journal, and a final paper synthesizing their personal and professional learning in the course. Although student assignments were not being used as formal data
collection, reading through these assignments did provide a preliminary look into the experiences of teacher candidates. For example, in the fall of 2008 I taught the Teacher Stress and Burnout class with 35 students. In that class students were assigned a wellness workbook that they had to fill out weekly and then hand in before going on practicum. Over practicum, teacher candidates kept a journal of their experience teaching in relation to their experience of stress and wellness and mindfulness. As well, the final assignment for the course was a final paper that was a summative analysis of their experience of the MBWE curriculum and how it impacted them personally and professionally. Marking these assignments elucidated a lot of the process which teacher candidates were going through in this class, and thus helping me to better understand the links between learning mindfulness and teacher preparation. Although this was not part of the formal data collection, indeed this was the first iteration of gathering data.

Student assignments were not used as data points because they were being evaluated for final grades in the course so there was a potential conflict of interest. Furthermore, to reduce researcher bias, I did not ask students to participate in the interviews until after the course was completed and all final marks were submitted to the registrar. Therefore teacher candidates would be able to fully agree to participate in the interviews with free and informed consent. Teaching, communicating with students and reading assignments are all informal data collection for my study that influenced sample selection and the questions posed in the interviews.

Another elephant in qualitative and action research is the level of objectivity the researcher can bring to their subjective analysis of the data. There is further complexity considering I was the instructor of the intervention and researcher. To add further bias, I regularly practice meditation and chose this line of research because I think mindfulness does hold potential value for teachers and education more widely. In Action Research, the instructor is the key researcher and their involvement doesn’t skew the observations, because the focus of the research is directed at improving instruction / curriculum, therefore the teacher / researcher is seeking understanding that will improve their practice, and simply attaining attractive results.

My own personal practice of mindfulness meditation can be seen as an overt bias as a researcher. Solloway (2004) discusses the way mindfulness is not simply something out there to be investigated; mindfulness is inherently part of the process of researching. A focused and observant attention can lead in the process of research as perspective is continually effecting the
researcher’s interpretation. Researcher mindfulness brings awareness to the typical categorical thoughts that can go unchecked by the mental habits automatically framing understanding. Practicing mindfulness enables the researcher to see the unfolding of events more clearly, as they are really happening without being caught up in biases or convenient outcomes. “Mechanistic applications of methods yield mundane data and routine reports. A keen eye, open mind, discerning ear, and steady hand can bring you close to what you study and are more important than developing methodological tools” (Charmez, 2006, p.15). Further, mindfulness meditation is closely related to the traditional meditation practice of vipassana, translated as insight meditation. Insight is cultivated by widening the lens from which one typically sees in order to allow novel distinctions to appear. Approaching qualitative data analysis with mindfulness allows preconceptions to fall away in a process inviting insight.

This action research design following a grounded theory approach and analysis exemplifies the current movement of bricolage in qualitative research. The strength of using a naturalistic context is often balanced by the complexity of researching in the real world. Researching the MBWE over three semesters adds a substantial level of rigor to this study, and results from this study can be viewed as important directions for future empirical research in the field. The chapter that follows outlines and describes the results from this study.
Chapter Four

4 Improving Teaching & Learning in Mindfulness-Based Wellness Education

This chapter addresses the second research question of this study: What are the key pedagogical and curricular components of Mindfulness-Based Wellness Education (MBWE) in teacher education? I am beginning the findings chapters by addressing the second research question because this chapter provides a comprehensive overview of the teaching and learning process undertaken in the MBWE program, setting the context for the following findings chapters that elucidate the role of MBWE in teacher education.

Multiple data points contributed to the analysis in this chapter, including the twenty-three interviews with teacher candidates. These interviews included questions that specifically addressed the second research question. I was interested in discerning what elements of MBWE, for example, were found to be most helpful, and which elements needed further development. More general data was also collected in anonymous feedback forms completed twice a semester, over the course of three semesters. My own role as instructor, interacting with teacher candidates and reading course assignments, also contributed to a better understanding of teacher candidates’ experience of the course. Personal reflections kept after teaching MBWE classes, and while on a one-month silent meditation retreat (which reflects my own process learning mindfulness discussed in the methodology chapter) contributed to this findings section.

Data in the current section has been organized into the following three main categories: (1) Assignments in MBWE, (2) Engaging Teacher Candidates in MBWE, and (3) Backgrounds of Teacher Candidates when Learning Mindfulness.

4.1 Assignments in MBWE

The process of action research stimulated many changes to course assignments in MBWE. The following section highlights new and improved assignments used to facilitate learning over the
semester. Table 4.1 lists changes in course assignments, by comparing assignments from the syllabus for Stress and Burnout September 2006, to the syllabus used in January 2011.

Table 4.1
Comparing Past and Present Assignments in Mindfulness-Based Wellness Education

<table>
<thead>
<tr>
<th>Assignments in 2006</th>
<th>Value</th>
<th>Assignments in 2011</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Presentation</td>
<td>30%</td>
<td>Intention for Course</td>
<td>5 %</td>
</tr>
<tr>
<td>Practicum Diary</td>
<td>20%</td>
<td>Professional Interview</td>
<td>5 %</td>
</tr>
<tr>
<td>Personal Wellness Workbook &amp; Plan</td>
<td>40%</td>
<td>Personal Wellness Workbook</td>
<td>20%</td>
</tr>
<tr>
<td>Class participation</td>
<td>10%</td>
<td>Mindful Teaching Journal</td>
<td>10 %</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Holistic Lesson Plan/ Teaching Mindfulness</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Presentation</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self Study Final Paper</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Class Participation</td>
<td>20%</td>
</tr>
</tbody>
</table>

4.1.1 Intention for Course

Intention is a critical component for the MBWE course. Teacher candidates write an intention for the course based on their introduction to MBWE in week one. Teacher candidates’ ask themselves, what do I wish for myself to get out of this course? What areas of my health and well-being do I want to improve? What do I want to work on / gain / leave behind in my personal and professional life? Why do I think I am ready to take on this course? How will I learn best in this course? Students were further asked to outline one specific area in their life (i. e., dance, music, art, sport etc) that helps to relieve stress and supports them in feeling grounded, connected and present. Additional questions to respond to include: Where will you be able to fit in a daily 5-20 minute mindfulness practice in your busy schedule? What will help you stay motivated and engaged in this personal and professional development program? Teacher candidates are
encouraged to read over the assignments for this course, and outline their intention to complete them. Students are also encouraged to outline any variations to an assignment they would like to make, or to suggest alternative assignments that would better aid their learning.

The first week of MBWE is a thorough overview of the course. I consider week two the beginning of the course, which is why teacher candidates who choose to return for week two need to complete their intention for being in the course. Students may perceive a mindfulness-based course in the context of professional preparation as a “bird course”, which is why a comprehensive overview of the course in week one is necessary to clarify this myth. I often say that MBWE will be more work than other courses, and require a greater commitment on a daily basis. Further, I describe MBWE as a different type of work, distinct from the traditional courses in academic settings.

The intention assignment helps teacher candidates realize the in-depth personal and professional level of learning that will be required of them. As instructor, I am looking for the following components within the intention assignment: intrinsic motivation for being in the class, authentic voice and tone, genuine openness to the learning process in MBWE, relevant background experiences, and a plan for completing a regular mindfulness practices in their daily schedule.

I am upfront with teacher candidates when saying that if I read an intention assignment that lacks clarity or enough focus I will ask that person to sign up for an interview early on, in order to more fully discuss their intention for being the class. Balancing a professional relationship when building community is a valuable lesson I learned about teaching. I tried to provide a high level of support, and maintain a high level of expectation that participants would put forth authentic effort.

4.1.2 Professional Interview

The interview in the Stress & Burnout class has become an integral part of the learning process. After students write their intention for the course, I have some time to read it over and then to meet with them to discuss it. This provides the instructor the opportunity to look more deeply into the students’ motivations for taking the course, potential backgrounds that may be helpful in framing the learning process, and to nurture the teacher educator – teacher candidate
relationship. The content of the interview is about the intention assignment, the initial work done in the wellness workbook, and the teacher candidates’ experience of the class thus far. Students have the opportunity to ask any questions they have, and practice interviewing in a professional manner.

During the interview with the students, I am looking to help make connections between students’ background experience and mindfulness. Some of these connections are more clear than others. For example, some of the students are very open about having a diagnosed disorder or disease such as anxiety or depression. MBWE serves the role as being an outlet for these types of backgrounds, as well as support for new strategies for coping, however does not use a therapeutic approach. MBWE calls forth whatever is present in ones life, not for the purpose of fixing, but more simply as a way of developing awareness and acceptance. Being able to connect the potential value of practicing mindfulness with past struggles helps to build motivation for sincerely taking on the homework in the course. I have also found that students with a background in philosophy and psychology come into the class with a more open perspective toward this work because they have experience thinking deeply about issues related to human experience. I try as much as possible to highlight these theoretical backgrounds, and to bring them into dialogue with the philosophical tenants of the mindfulness program. This only serves to broaden the scope of student engagement. The same could also be said of students who describe a background in the sciences. These students are typically helpful in clarifying the research being done on mindfulness within their own scientific field. Encouraging these students to investigate the literature on mindfulness is a good strategy for encouraging a plurality of interests within the group.

Ultimately, the interview is an opportunity to solidify at least one reference point for each student from which to understand mindfulness. Sometimes the connection is very clear and other times it takes a little more time for it to unfold. This process of attuning with the student in the interview is a practice of staying present to them, and trusting a connection point will emerge. This special process has been a memorable experience, and demonstrates that the teacher-student relationship is not simply valuable within K-12 education, but is integral to all levels of education.
4.1.3 Personal Wellness Workbook

The personal wellness workbook is a guide for the Mindfulness-Based Wellness Education program. It is composed of eight weeks, each week corresponding to a particular focus. The wellness workbook has undergone revisions throughout this study based on feedback from teacher candidates. On the introduction page of each week, there is a brief description of the topic for the week, space to fill weekly practices, reflective questions and a space for weekly commitments. Reflections should include a focus on formal mindfulness practice, informal mindfulness practice, and wellness focus on the week. There are also reflective questions found on the introduction page to each week. The front and back of two colored pages (matching the theme of wellness) are left blank for teacher candidates to fill in a way that is meaningful for them. This may include art, literary quotes, poetry etc. In prior years, teacher candidates were required to fill in more pages per week. The number of pages per week was reduced in order to create a more balanced workload between written reflections, formal mindfulness practice and reading articles.

There is also a Formal Mindfulness Practice Log for teacher candidates to fill in the practices and duration of practice they complete each week. The log provides a graphic representation for teacher candidates to track their mindfulness practice, and also provides the instructor greater insight into teacher candidates’ process. The final page of each week offers space for teacher candidates to reflect on the readings. Teacher candidates are guided to reflect on their personal learning from the readings, and in also in relation to teaching, learning and education. Teacher candidates are invited to bring their workbooks to class each week, and use it as a reference when sharing in small groups about their experience and learning from the week. Teacher candidates complete peer evaluations of the workbook on random weeks throughout the course. Evaluations are focused simply on completion, so teacher candidates are not reading other students’ workbooks. The instructor evaluates workbooks more comprehensively during practicum, which has come six or seven weeks into the nine week course. Even still, teacher candidates are able to mark areas of their workbook that they do not wish to be read. Evaluation is further discussed in the final section of this chapter.
4.1.4 Mindful Teaching Journal

During a four-week practicum, teacher candidates keep a journal of their formal mindfulness practice and informal enactment of mindfulness in the classroom. The primary purpose of this journal is to support teacher candidates in staying engaged with the experience of a mindfulness practice while teaching. Teacher candidates’ are expected to have two brief reflections per week. One reflection each week should be on the formal practice, and the other reflection focuses on the practice of mindful teaching while in the classroom. This assignment has become more focused on these two dimensions in order to support the continued formal practice and to foster the informal practice of being present in the classroom; a form of reflection-in-action. Teacher candidates’ act of reflecting on reflection-in-action in the journal brings forth insight into the value of being present in the classroom. The quotation below comes from Chandra, a teacher candidate describing her experience of practicing mindfulness on practicum.

_Briefly before my two classes, I sometimes did a short loving kindness practice and I noticed that my behaviour inside the classroom and outside the classroom changed completely. Students were very receptive to this caring nature and I noticed that I needed less classroom management because of this. When I first started my practicum, I thought I had to be very strict in order to have effective classroom management. I realized students were more receptive to kind and assertive communication. I also noticed that I was more calm and patient with students in the classroom and during extra help sessions. I believe my calm nature caused the students to act calmer._

The mindful teaching journal develops the momentum started during the MBWE class into the four-week practicum. Journals are handed in upon return from practicum, and evaluated based on completion, and quality of reflections. Quality is based on reflections being on topic, such as describing a moment in the classroom when they felt present, versus a synopsis of their day teaching.

4.1.5 Holistic Lesson Plan

The holistic lesson plan is a new assignment introduced to apply learning from MBWE in the areas of holistic teaching. Holistic teaching is introduced through various readings such as
Miller’s (1994) Holistic Curriculum, and exercises involving the wellness wheel. The wellness wheel is used to explore a holistic approach to classroom planning; placing classroom planning in the centre of the wellness wheel and having teacher candidates suggest elements of classroom planning relating to each dimension of wellness. The wellness wheel is also used to demonstrate an integrative curriculum. In this exercise, teacher candidates put a specific topic they are going to be teaching on practicum in the centre of the wheel, and write down elements of that topic relating to each dimension of wellness.

On practicum, teacher candidates use their creativity in developing and teaching a holistic lesson. This may include (however is not limited to) the integration of a mindfulness-based practice with students. Upon returning from practicum, teacher candidates hand in their lesson plan, and a reflection on their experience teaching the class, and on what makes that lesson holistic. In addition to handing in this assignment, teacher candidates’ present their experience of the holistic lesson in small groups in class the first day back from practicum. Appendix D is an example of reflection by a teacher candidate on their holistic lesson plan. Below, Audrey a teacher candidate, shares her perspective of holistic education as she completes MBWE.

*I really became fascinated with the proposal for holistic education. Prior to my experience in teacher education, the only theories of education and pedagogies I have encountered are the ones that I have experienced first hand. Looking back at my elementary education, the curriculum presented a very fragmented perspective. Our classes and subjects were very disconnected and it was expected that we would make those connections at some point on our own. Holistic education looks at not only connecting the curriculum naturally, but also connecting the students with their work through collaboration, and merging reason and intuition.*

This reflection describes the importance of learning holistically in MBWE, learning about theory of holistic education and the opportunity to engage in developing holistic learning opportunities over practicum.
4.1.6 Presentation

The presentation in MBWE has dramatically changed since its first inception. The original design of the presentation assignment was completed in groups of four or five, within a thirty-minute timeframe. The presentation used to focus on one possible source of stress for teachers, and on the applicability of mindfulness and wellness-based approaches for managing this source of stress. Presentations took up over around 40% of MBWE class time in the original format, for both preparation time in groups, and for the presentations themselves. I did not think the time allotted brought forth equivalent value in learning. I think the size of the group, and lack of personal content contributed to this. Further, teacher candidates did not seem too engaged in their presentations and I did find the quality of work was advancing learning in the class.

The first year instructing MBWE for the cohort of students participating in this study there was no presentation assignment. The importance of teacher candidates’ sharing their own personal and professional learning in the form of presentation came back into focus listening to holistic lesson plans and informal discussions lead by students. A key moment of insight about the presentation came through an informal discussion listening to Todd, a teacher candidate, speak about his learning about mindfulness through his experience of sports, and specifically as it relates to hockey.

I had a unique connection to Todd because we played as defence partners on the OISE hockey team. I organized the OISE hockey team so filling spots on the team with students in MBWE was a natural beginning. Since starting the team, there has been between one-to-three students from MBWE on the hockey team. Having the opportunity for more informal meetings and conversation, Todd showed an interest in the connections between mindfulness and hockey. I invited Todd to lead a discussion in class about his insights on the topic. His presentation fostered personal and classroom engagement and learning in a unique way, one that needed to facilitated on a more regular basis.

The resurgence of the presentation in MBWE became an individual learning and teaching opportunity on a topic of choice related to mindful wellness. Within the current format, presentations are ten minutes and cover three areas: personal connection to the topic, experience in the course practicing mindful wellness in relation to the topic, and a research article/outside resource on the topic. Examples of topics include: dance, depression, running, laughter yoga,
fishing, anxiety and family alcoholism. It is important for teacher candidates to choose a topic that has personal significance, and an area they can investigate through your own practice throughout the course. I found teacher candidates enthusiastic about their topics, and eager to explore and present them. Because presentations are brief, teacher candidates need to be clear and concise. Following each presentation, other students in the class are invited to ask a question or make a comment in response. Presentations have become a valuable community learning experience where each student becomes the teacher, and has the opportunity to share a unique approach to learning in a mindful way.

4.1.7 Final Self Study Research Paper

The final paper has also undergone considerable change over the course of this study. This assignment is now a five-page synthesis of the personal and professional learning that emerged throughout MBWE, compared to a two-page personal wellness plan. The content and structure were changed in order to provide teacher candidates with a more in-depth opportunity to synthesize their learning in the course. As well, the current assignment models aspects of self-study research methodology, which provides an opportunity for teacher candidates to gain experience in this approach to research which can be useful later on in their teaching career. It is expected teacher candidates develop their paper from common themes identified after reading through all their course work, and include citations referencing key theoretical points. The following questions guide the final paper: What has been your learning journey going through the Mindfulness-Based Wellness Education program? What did you learn about yourself and were areas of personal growth? What did you learn about teaching, learning and education, and what were the areas of professional growth? How are these things connected?

Teacher candidates bring their final paper to the last class and are given an opportunity to edit each other’s papers. This provides another opportunity for continuing to share learning experiences in the course, and exchange feedback between one’s peers. Final papers are often inspired pieces of writing, where teacher candidates grapple with various issues and in the process of writing, gain new insights into the learning process. For example, below a teacher candidate articulates her personal growth in her final paper.

*This program helped me in a special way. My father passed away 14 years ago, and I never came to an understanding around issues / worries I created in my*
mind; wishing I could have done or said something to him to save him from a tragic death. Life went on and I am here today gaining the strength I need to live in harmony with my mind, moving forward with life, allowing myself to accept and deal with my emotions differently, in a calmer manner. This effects who I am, and who I am in the classroom.

Blending personal and professional perspectives in the final paper is a novel form of writing for teacher candidates; calling them to move beyond writing as a static abstraction and seeing themselves within the lucidity of the experience. This approach to writing is another form of praxis in MBWE, often more engaging for the writer.

4.1.8 Class Participation & Evaluation

The value attributed to participation in MBWE was increased from 10 to 20 % to emphasize the importance of classroom engagement. This includes: attending class, contributing to class discussions, and participating as a learning partner. Facilitating active discussion in MBWE can sometimes be a challenge since the content of reflections are often personally based, and teacher candidates can feel reserved in the context of professional preparation. Teacher candidates are reminded that, although many of the mindfulness practices emphasize silence, participating in discussion is an opportunity to discover how one’s peers are experiencing the mindfulness practices.

Evaluating teacher candidates’ participation included coming to class and actively participating in the classroom discussions. This does not necessarily mean contributing in whole class discussions, although everyone is encouraged to share their voice at least once in each class, as there is ample opportunity to demonstrate participation in small group activities and discussions. Evaluation in MBWE is another area that has also gone through various shifts and is still in development.

Evaluating mindfulness is no easy task, as the idea of marking teacher candidates on their process in MBWE seems counterintuitive. Two main criteria are a general basis for evaluation in MBWE: completeness and quality of work. Authenticity and thoughtfulness are the two principles emphasized regarding quality of work. Teacher candidates are supported to develop an authentic voice in their reflective assignments. An authentic voice more readily articulates a
personal journey within the theoretical lens of the current professional discourse, and is demonstrating more complex levels of awareness and expression.

Since teacher social and emotional competence and teacher dispositional development are still relatively new foci in teacher education, models for evaluating are scant. Further research is needed in order to create a rubric emphasizing developmental stages of learning that reflect degrees of self-awareness. For example, future work may look to models of adult development such as Kegan (1983, 2004), who has developed an intensive process for determining a person’s stage of adult development. Part of the complexity in evaluating stages of adult development is that each begins the process from a unique place, and therefore learning can assessed based on growth from where one started as opposed to there being a unanimous goal. Therefore it may be interesting to include a two-part assessment that includes a data point at the beginning of the class and then at the end of the class in order to account for any change. Such an approach may also be valuable learning for teacher candidates about the process of adult development, and helping them gain further perspective in regards to their own areas of growth.

Another measurement developed for assessing teacher candidates’ change in awareness is the Solloway Mindfulness Survey (SMS). The SMS was developed in part by coding journal entries of teacher candidates’ learning mindfulness within the context of a teacher education course in order to identify degrees of intentional attention (Solloway & Fisher, 2007). This model differs from other mindfulness scales by including indicators of growth related to insight, wisdom and compassion (Solloway & Dawson, 2011). There are five levels used in the SMS: (1) Very early intentional attention, (2) Beginning intentional attention, (3) Increased intentional attention, (4) Making intentional attention more continuous, and (5) Deepening continuous intentional attention. Those levels can be incorporated into a section of a rubric for evaluating degrees of mindfulness demonstrated in assignments. Further development and research of evaluation methods and rubrics in MBWE is needed, as using developmental rubric for assessment and self-assessment may also serve to deepen learning in participants.

4.1.9 Summary

The fact that mindfulness-based training programs are not readily found in teacher education means there is little within the mindfulness discourse articulating how to integrate such practices into the training of teachers. The second research question in this study thus marks the process of
developing the Mindfulness-Based Wellness Education course – both structurally, and in content. I was able to use my own continued learning in mindfulness while on a one-month mindfulness retreat to contribute insight into teaching and learning mindfulness. For example, my own learning nurtured greater empathy toward understanding the process teacher candidates are going through and barriers that may be arising in their learning. Various curricular components were highlighted that contributed to fostering teacher candidate engagement in the course such as the day of mindfulness. Including a day of mindfulness in the fourth week of the course, provides teacher candidates a greater experiential understanding of mindfulness practice and the potential benefit it holds. Assignments in MBWE evolved over this study to facilitate ongoing engagement. For example, writing an intention and having an interview with the instructor are assignments at the beginning of the program that nurture meaningful connections to course content. The wellness workbook tracks ongoing insights throughout the course, and the final paper facilitates teacher candidates in synthesizing their learning from the course. There is still more work to be done in the evaluation process in MBWE. There remains potential for creating a rubric illustrating social and emotional competencies and stages of adult development that can assess the growth and development of teacher candidates.

4.2 Engaging Students in MBWE

Teaching mindfulness is a unique endeavor because we all engage the practice from our individual perspectives, levels of self-awareness and life experience. There is no “correct” level of conceptual understanding to achieve in learning mindfulness; we are each continually growing and learning in our practice and understanding. This reflects the same challenge teachers face in a typical K-12 classroom. Although we want our students to excel in their learning and reach a certain level of achievement, by projecting our own desires and expectations onto them, we are likely to ignore the various stages that are appropriate to their own particular development.

Within the MBWE class, one encounters varying capacities of awareness and reflective practice. While some teacher candidates enter into MBWE class with higher levels of self-awareness, other teacher candidates struggle even with the atypical format of sitting within a circle. My approach has been to expect teacher candidates to fully participate in all of the experiential practices, and I have found myself continually needing to let go of the expectation
that all teachers will grasp these practices at a similar level. By letting go of my expectations, I am able to see more clearly the individual progress that is made by each of the teacher candidates.

The MBWE program seeks to engage teachers by making them accountable to their own levels of development within the course. Very typically, our education system is set up for students to look outwards in order to receive recognition and or reassurance that what they have done is correct. This constant outward seeking diminishes our ability to find answers within ourselves. When it comes to the practice of mindfulness, many teacher candidates grapple with doubtful thoughts such as “I am doing it wrong” and “I am no good at this.” Interestingly, there is no real way for an instructor to access this inner experience of the student. In teaching Mindfulness, one can only provide the tools by which a student can grapple independently with his or her development or lack thereof. Ultimately, the purpose here is to encourage teacher candidates to (a) take a critical step forward in their ability to recognize thoughts, and (b) reinforce their own self-reliance.

As instructor, my emphasis toward engagement became a primary concern when witnessing a small percentage of students remaining on the periphery of the course. One trend I found is that teacher candidates who demonstrated resistance or dis-engagement in MBWE were students who maintained a conceptual understanding of mindfulness and did not move into the experiential practice of mindfulness. One common perspective of those students not engaging in the practice of mindfulness was that they already had been introduced to the concept of mindfulness just not in those terms. Therefore they had a hard time engaging with the course because they didn’t feel as though there was something new to learn, and did not have the necessary motivation or discipline to gain learning through the experiential practice. In responding to this challenge, I continued to develop a curriculum that was intended to help teacher candidates create the necessary motivation and connection to the course and practice in preliminary weeks, and then to continue to re-fresh their intentions and learning throughout the course.

Table 4.2 below lists some other strategies and approaches that were found to be useful in promoting teacher engagement within the MBWE program. I begin by discussing strategies used when teaching mindfulness practices.
Table 4.2
Engaging Students in MBWE

<table>
<thead>
<tr>
<th>Mindfulness Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invitation to Participate in Practices</td>
</tr>
<tr>
<td>Flexibility of Practices</td>
</tr>
<tr>
<td>Mindfulness Practice in-class</td>
</tr>
<tr>
<td>Regular Short Practices</td>
</tr>
<tr>
<td>Secular Based Practice</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classroom Climate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting in a circle</td>
</tr>
<tr>
<td>Sharing experience in small groups</td>
</tr>
<tr>
<td>Sharing silence in a group</td>
</tr>
<tr>
<td>Music</td>
</tr>
<tr>
<td>Teacher</td>
</tr>
<tr>
<td>Learning Partners</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science of Stress</td>
</tr>
<tr>
<td>Depression</td>
</tr>
<tr>
<td>Wellness Wheel</td>
</tr>
<tr>
<td>Readings</td>
</tr>
<tr>
<td>Guest speakers – new perspectives on mindfulness</td>
</tr>
<tr>
<td>Day of Mindfulness</td>
</tr>
<tr>
<td>Weekly Email &amp; Online Learning</td>
</tr>
</tbody>
</table>
4.2.1 Formal Mindfulness Practice

Teacher candidates highlighted a number of key elements that supported their learning in MBWE. This discussion begins on the topic of mindfulness practices. In a typical Mindfulness-Based Stress Reduction (MBSR) eight-week course, participants are asked to keep up a daily 45 minute mindfulness practice six days a week. While a forty-five minute practice may well accelerate the healing benefits of mindfulness practice, my feeling was that it was too demanding to be realistic for the lives of teacher candidates. Mindfulness practices were thus set at twenty minutes long and building up to that length of practice with shorter practices at the beginning. For example, in the first week of the course, students are asked to incorporate a three-minute practice into their daily life.

Another strategy used in the first week in order to help teacher candidates begin to shift their lifestyle was asking teacher candidates to explore the practice of turning off their TV. Instead of making a huge demand of time of what teacher candidates need to be doing, turning off the TV (which includes video games and surfing the web) asks teacher candidates not to do something, and to notice the challenge of disrupting their automatic behaviours. One common response from teacher candidates at the end of the first week is how much more time they have in their life when they turn off the TV. This insight is valuable for preparing teacher candidates for the lifestyle adjustment that is required in MBWE, for example, building in a 20-minute mindfulness practice.

One of the most challenging parts for anyone learning mindfulness is allowing for the necessary time to develop the practices on an ongoing schedule. The main message in MBWE is to build towards a daily mindfulness practice. At minimum, teacher candidates are encouraged to keep up a twenty-minute practice three times a week and complement that with shorter practices (three to five minutes long) on other days. A considerable amount of time is dedicated to figuring out how each of the practices might realistically fit into the students’ lives. Teacher candidates are encouraged to write out their plan for where and when they are going to do their practices in their Intention Assignment. Because many teacher candidates have a long commute by transit to school everyday, many choose to download the mindfulness practice onto devices they can listen to on their way to school. Although these may not be ideal conditions for practicing mindfulness,
they do afford teacher candidates a good opportunity to develop a consistent practice. Teacher candidates using the commute to practice, were encouraged to also try the practices in quieter settings at home on other days. Teacher candidates often commented on simply listening to the sounds of the subway or train as a way of staying present, and then feeling more focused upon arriving at their destination.

Each week of the course, a new mindfulness practice is introduced in class, and then assigned for homework that week. Teacher candidates found it very helpful to experience the mindfulness practice in class before they were assigned to complete the practice for homework. Formal mindfulness practices in MBWE include the three minute breathing space, body scan, mindful yoga, mindful walking, loving kindness, mindful sitting, expanding focus to emotions, sound, thoughts and open awareness. Teacher candidates appreciate the variety of practices because each person connects differently with each practice. We can begin to think of different mindfulness practices for different learning styles – as well as working toward different outcomes. For example, mindful yoga is a body based moving practice, which is often a gateway practice toward sitting meditation. Teacher candidates who found it very difficult to sit still found they connected more easily with the yoga practice. As well, some teacher candidates connected with loving kindness practice; repeating phrases of loving kindness to oneself, and others as a way of staying focused and for opening the heart. I have found that by introducing a number of different practices, teacher candidates will typically find a practice that works for them. After the mid point of the class, teacher candidates are then encouraged to keep up a practice of their own choice.

4.2.2 Classroom Climate

Developing a classroom community was an important challenge for the MBWE program. This was true, not least of all, because the course was offered as an elective, falling outside of the regular cohort structure. This meant that the 35 teacher candidates were unfamiliar with one another at the start of the course. One primary intention in the first three weeks of class was to spend time developing classroom community. Having teacher candidates sit in a circle without desks in front of them is one structural dimension that was used to cultivate an unfamiliar sense of community. This is obviously a very different classroom set-up from other approaches in
teacher education. Within the MBWE program, it served to facilitate a more diversified set of classroom activities – including work in smaller groups, pairs, etc.

Beyond these structural changes, a classroom climate is then developed by drawing attention to the course itself, and the various intentions of its participants. The first core reading in MBWE is a chapter from Kabat-Zinn’s “Full Catastrophe Living.” This chapter goes over seven attitudes and commitments that are a foundational for mindfulness practice. These include: non-judgment, acceptance, beginner’s mind, non-striving, letting go, trust and patience. When discussing this article in class, I try to emphasize that our mindfulness practice begins in the classroom. This means, to begin, communicating one’s intentions for being the course. The first assignment of creating an intention for being in MBWE is supposed to be a personal account that reveals vulnerabilities and areas of potential growth. Sharing and being open with one another began the process of building trust in MBWE. Teacher candidates spoke about the level of openness and safety they felt in MBWE, especially compared to other courses in their teacher education program (i.e., courses where teacher candidates see each other almost every day throughout the whole year).

Music and sound were other important variables that contributed to classroom climate. Music is used in MBWE in a few different ways. I would often have soft classical music playing at the beginning of class so teacher candidates entered into a pleasant environment. On a few occasions at the beginning of the course, I would even leave the music on softly in the background when beginning a mindfulness practice. Teacher candidates remarked that this helped them calm and stay more focused in the practices. Music was also used to communicate various themes in the course. One way I used to complete a mindfulness practice was to play a song. Playing a song is not so different from integrating poetry into mindfulness practice, which is not an uncommon practice. One of the more powerful songs used is “Let it Be” by the Beatles during the week we are focusing on emotional wellness and “Letting Go.” One teacher candidate even approached me after the class I played Let it Be and told me that her father was a big Beatles fan, and she had been learning to be with his passing that happened a few years earlier. Of course, we can never predict these types of synchronicities. Music plays a powerful role in many of our lives, and integrating the use of music contributed in creating a welcoming classroom climate, and is another medium for communicating content.
Using sound is also used as a key element within MBWE. A singing bowl was used to signal the beginning or ending of exercises and to get the class’s attention. Ringing the bowl would echo out calming vibrations into the classrooms which also acted as mindfulness practice. When teacher candidates heard the sound of the bowl they would finish their conversations and pay attention to the fading sound. This is a strategy for creating transitions – one that many teacher candidates wanted to incorporate into their own classrooms. Using intentional transitions that maintain focused engagement in the classroom supports more fluid beginnings and endings to activities in comparison to strategies such as the teacher speaking yelling over the class noise, or flicking the lights on and off. Using sound as a signal and as a brief mindfulness practice is a more calming way to send a message, and prepare students for what is happening next.

From the beginning of the course, each teacher candidate develops a learning partnership with another student in the class. The expectation of learning partners is that teacher candidates will check-in with one other person each week of the course, to discuss their weekly homework, struggles and insights. Acquiring learning partners is another pedagogical tool that was seen to contribute to a positive classroom climate and aid learning. When discussing more sensitive matters in class, teacher candidates were able to pair up and share in the safety of their learning partnerships enabling deeper learning. Feeling safe and secure in a learning partnership developed skills of social intelligence, and also contributed to the overall feeling of safety and inclusivity in the classroom. Having the opportunity to talk with another student on a weekly basis about course content supported learning, especially through areas that are not being understood. Here, a teacher candidate describes her experience of learning partners.

_We had the buddy system, where we were encouraged to check in every single week. We did that every single week and having that and discussion around the process made the process so much better. For me who was enjoying the practices for the most part, and for my partner who was struggling more, so there it was a good support system and helped develop a meaningful friendship._

Having teacher candidates accountable to each other also contributed in their personal engagement in the course. Especially over practicum break when there is no class structure of support for teacher candidates, learning partners are able to stay connected and bring to focus content from the course that may support them during the stressful time of practice teaching.
Another important relationship in MBWE that contributed to classroom climate is between the instructor and the teacher candidates. In particular, the one-on-one interviews (which is discussed in greater depth later in this chapter) was an opportunity to meet with each teacher candidate and develop this relationship. As the instructor, I found that the process of meeting my students and learning about their personal backgrounds and perspectives enabled a certain level of attunement, which is an important foundation for creating a positive classroom climate. This in turn contributed to an overall feeling of trust within the classroom, allowing students the freedom to share their own ideas, vulnerabilities, etc.

Teacher candidates also emphasized the instructor and instructional strategies as an important source of motivation at the beginning stages of their learning in MBWE, especially when entering a foreign learning environment. In order to teach mindfulness it is essential to practice mindfulness, because students can sense your presence, and become curious about a mindful approach to teaching. For example, teacher candidates commented on moments of silence invited into the class. Whereas classrooms are often moving quickly from one activity to the next, from one idea to the next, MBWE created space for pausing. Deborah, a teacher candidate, describes a perspective of the instructor in MBWE.

An interesting thing that teacher candidates commented on and something I tried, is the way in which you (Instructor of MWBE) teach. The calmness in the way in which you teach - the pauses you take. You can take a pause and there doesn't have to be anything in that moment, and you'll pause. And it is funny that it is something a lot people commented on, was how you are willing to do that and a lot of people are worried about filling each moment. I found the style in which you taught very refreshing.

Pausing is more readily referred to as wait-time in the classroom; the time teachers give students to consider a response to a question. Including more quiet moments in the classroom gives time for digestion of material. This does not necessarily mean long moments of silence, simply adhering to proper punctuation when speaking can create more space in the classroom. For example, at the end of sentence we use a period and then leave a space before starting the next sentence. We can also follow that rule when speaking, which contributes to a calmer classroom climate. Teacher educator modeling is a considerable source of praxis in teacher education.
Instructing MBWE is therefore an opportunity to put all the theory being discussed in the course into practice that includes the instructor’s own practice of mindful teaching.

4.2.3 Curriculum

The final theme seen to contribute to teacher candidate engagement in MBWE was the curriculum. Mindfulness and wellness are the two main sections contributing to the curricular framework each week. They are each explored on their own, in relation to the other, and in relation to teaching and learning.

In addition to being explored through experiential practices, Mindfulness was explored from a scientific perspective relating to health, well-being and human development. For example, topics include the physiology of stress, depression, and current neuroscience on the impacts of meditation on the brain. Such topics highlighted mindfulness as an evidence based practice which also contributes to teacher candidate motivation to participate in the experiential practices. Providing an overview of the physiology of stress grounds understanding of the mind-body process within the stress response, and the role that mindfulness can play in reducing automatic appraisals and reactivity that contribute to the stress response. Further, depression, and mental health more broadly is an important area within the curriculum highlighting the rising level of mental health issues in adult and younger populations, and the challenging circumstances it can create in learning and in the classroom. After experiences on practicum, teacher candidates readily see mental health issues arising in the classroom, and therefore the opportunity to better understand the nature and nurture of mental health prepares them for coping with this reality. For example, in the third week of MBWE, while focusing on emotional wellness, chapter 2 from “A Mindful Way Through Depression” by Williams, Teasdale, Segal and Kabat-Zinn (2007) facilitates interest and insightful reflections on teacher candidates own processes of emotions, and the wider issue of depression.

The wellness wheel is also a helpful guide and framework throughout MBWE. Each dimension of wellness offers an opportunity for teacher candidates to explore not only what it means to them, but also how it relates to current educational initiatives. For example, social and emotional learning represents both a personal exploration and a broader concern for those invested in education. In this way, wellness is emphasized as a series of concepts that are to be explored at various levels. The wellness wheel is presented as a grounding metaphor, and teacher
candidates are encouraged to change and adapt the metaphor in order to better suit their models of interpretation. Shifting the focus each week of MBWE to correlate with a different focus of the wheel keeps teacher candidates engaged and interested in exploring a new perspective each week. The wellness wheel also becomes a useful pedagogical tool that teachers can use in thinking about teaching and in their own classrooms.

Teacher engagement is also encouraged through the readings provided for the course. Over the past three years, I have continued to update a course reader that reflects relevant concerns for each of the topics in the course. Each week, there is typically one reading that relates more specifically to mindfulness or mindfulness practice, one reading that relates to teaching and/or education as well as short stories or poems. There have been an increasing number of articles and books on the topic of mindfulness in education over the past three years which has contributed to the increase in readings in MBWE. I have continued to listen to feedback from students in regards to readings that had a greater impact, often removing readings that were found to be less illuminating. Although the course reader has increased in size since MBWE first began, I find offering teacher candidates a number of readings to be an important way of ensuring that numerous interests and possible directions are raised. Teacher candidates are required to reflect on the readings in their wellness workbook on a weekly basis, and readings are also taken up informally in small group and large group discussions on a weekly basis. My experience evaluating wellness workbooks is that teacher candidates do not always reflect on all of the readings per week, but they are always able to find at least one reading that is meaningful to them and advances their understanding.

Another curricular strategy used in MBWE that teacher candidates highlighted as supportive in their learning was the creation of an online learning environment. As the course instructor, I sent out a weekly email to students a few days after class. The email outlined the focus on the week and homework assignments related to formal and informal mindfulness practice. Each email had words of encouragement as well as a story, poem, or video clip that related to our focus in the week. The following is an example of parable shared.

There is a Taoist story of an old farmer who had worked his crops for many years. One day his horse ran away. Upon hearing the news, his neighbors came to visit. "Such bad luck," they said sympathetically. "Maybe," the farmer replied.
The next morning the horse returned, bringing with it three other wild horses. "How wonderful," the neighbors exclaimed. "Maybe," replied the old man. The following day, his son tried to ride one of the untamed horses, was thrown, and broke his leg. The neighbors again came to offer their sympathy on his misfortune. "Maybe," answered the farmer. The day after, military officials came to the village to draft young men into the army. Seeing that the son's leg was broken, they passed him by. The neighbors congratulated the farmer on how well things had turned out. "Maybe," said the farmer.

The content within these emails reminded teacher candidates that our course required active participation throughout the week, and encouraged them to stay engaged with the principles discussed. The online learning environment was a course web-space where I would post additional readings, relevant links to mindfulness initiatives in education, as well as offer a space for dialogue between students.

The most influential curricular component of MBWE, as highlighted by teacher candidates, is what I called the “day of mindfulness”. Having a day of mindfulness is a core element found in a traditional Mindfulness-Based Stress Reduction (MBSR) course. In a MBSR course, the day of mindfulness is typically offered as a six hour class run between weeks six and seven (or between later weeks). The day is run in silence as participants are sequenced through various mindfulness practices including mindful yoga, mindful sitting, mindful walking and loving kindness practice. The first two years MBWE was run at OISE/UT, there was no day of mindfulness in the curriculum. As part of this study, I began to investigate the inclusion of a day of mindfulness into the curriculum because I knew the potent learning experience a day of practice provides from personal experience. At first I ran the day of mindfulness on an atypical day and time, from 10:00 a.m. – 3:00 p.m. on the Saturday in the middle of practicum. The intention was to provide teacher candidates with an opportunity to re-connect with the practice of mindfulness at the peak of their practical experience teaching. A common experience for teacher candidates was entering into the day feeling stressed about the various lesson plans and piles of marking that needed to be done. There were typically a few teacher candidates who expressed frustration about having an extra requirement while on practicum, especially for those who had long ways to travel. As the day continued, however, many reported feeling calmer, more relaxed and thankful for the experience of the day. In an attempt to reduce the initial stress response of
students, I experimented with a shortened 1.5-hour practice, and then moved the day of mindfulness to week four of the regular class timetable. Teacher candidates are made aware of the day of mindfulness in the first week of class, and participating in that class accounts for 3% of the participation grade.

The day of mindfulness is run at a space on campus that is more appropriate to our needs. At the University of Toronto, we are fortunate to be able to use a space at the Multi-Faith Centre, which is simply a big open room, that is warmly lit and decorated. Significant to me is that, on this fourth week of class, teacher candidates are challenged to sit in an unfamiliar environment – trading in their desks for yoga mats - in order to focus on their breath. Many teacher candidates continue to approach the day with hesitation due to the fear of not knowing how they are going to stay silent for four hours. However, after sequencing through various mindfulness practices, all leave with a valued personal and professional learning experience. This discussion concludes with the voice of Paul, a teacher candidate describing his experience of the day of mindfulness.

What I noticed when I was there (Day of Mindfulness), is that at one point, we were asked to focus on sound (instead of silence). I realized that everything around us has its own rhythm or heartbeat. What changed during the retreat was that I learned that if we just take the time to listen throughout our day with awareness, then these different rhythms merge together to create a unique song – a song we usually fail to hear during our busy lives. As a future teacher, I believe that if I am to listen mindfully to my students, then I will be able to hear each one of their different songs, and that I will be able to gain a better understanding of who they are as individuals.

4.3 Learning Mindfulness: Drawing on Past Experiences

This category highlights background experiences which teacher candidates found useful to draw on in their learning during the MBWE program. This is an important category since it addresses the fact that mindfulness represents a new area of consideration and practice for the majority of teacher candidates. In delivering the MBWE program, one is therefore faced with the challenge of adapting to, and working with, people who have had diverse exposure to some of the questions being raised in the course. This was especially true for those enrolled in the MBWE
course at OISE/UT – since the course itself was registered under the name “Stress & Burnout: Teacher and Student Application”. I mention this only to emphasize the fact that the majority of teachers enrolled in the course were not aware that mindfulness is a core aspect of the course, and therefore represent what I consider to be a diverse representation of teacher candidates. In other words, instructing teacher candidates with varying interests and openness to mindfulness practice presents a more realistic picture of what it may be like to teach a mindfulness course to a more general audience in teacher education or professional preparation more widely. Below in Table 4.3 is a list of backgrounds that were identified as relevant for teacher candidates in learning mindfulness. What follows is a discussion of these backgrounds that serve as examples for learning in MBWE.

Table 4.3

<table>
<thead>
<tr>
<th>Backgrounds of Teacher Candidates’ Learning Mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Yoga</td>
</tr>
<tr>
<td>• Martial Arts</td>
</tr>
<tr>
<td>• Dance</td>
</tr>
<tr>
<td>• Discipline of Philosophy</td>
</tr>
<tr>
<td>• Family Introduction</td>
</tr>
<tr>
<td>• Drama</td>
</tr>
<tr>
<td>• Sports</td>
</tr>
<tr>
<td>• Jogging</td>
</tr>
<tr>
<td>• Hockey</td>
</tr>
<tr>
<td>• Baseball</td>
</tr>
<tr>
<td>• Basketball</td>
</tr>
<tr>
<td>• Religious or Spiritual Orientation</td>
</tr>
<tr>
<td>• Fishing</td>
</tr>
</tbody>
</table>

Teacher candidates come to appreciate mindfulness from their own diverse set of experiences. As the instructor of this program, it is essential to acknowledge this diversity and develop a conception of mindfulness that builds upon prior experience. The practice of yoga is
an example of a background that a number of teacher candidates had when taking MBWE. Considering the growth of yoga in the west over the past ten years, many more students in professional preparation programs will have some exposure to yoga. In 2000, the practice of yoga in the west was still widely held on the periphery in terms of general understanding and acceptance as a secular practice. Currently in 2010, yoga has now reached popular culture as yoga studios are densely scattered across most major cities as well as found in smaller cities and towns. The yoga mat is a recognizable symbol in popular culture as well as numerous brands of yoga clothing. Being exposed to yoga from personal experience or simply from popular culture is part of demystifying the practice of yoga. Demystifying the practice of yoga is an important step in opening to the practice of mindfulness.

Teacher candidates entering MBWE who had some experience in yoga entered the course with a greater sense of openness, and less initial resistance to the content focus. This makes sense considering mindfulness and yoga are philosophically related and yoga is traditionally taught as a mindfulness practice. At the same time, however, a background in yoga also proved to be an occasional hindrance. With the cultural boom of yoga, we have also seen the expansion and diversification of the practice. Such forms include: Hatha, Inyegar, Anasura, Hot, Bikram, Moksa, Flow, Hidden Language, Dream, Yin, and Spynga, etc. While Mindfulness is an underlying principle within traditional yoga practices, it is emphasized to varying degrees within these diverse forms currently being offered. As a result, a student entering a mindfulness class with a background in yoga does not necessarily have experience in the mental aspect of the practice; on the contrary, it represents something akin to physical exercise (i.e. yogasize). Since entering into a mindfulness course with experience of yoga through the lens of exercise can also be a barrier to learning, I have found it important to offer some teaching about the background philosophy of yoga in MBWE.

As instructor of this course, I found it helpful to support teacher candidates in understanding the experience of mindfulness through an activity or background they regularly participate in such as dance, jogging, or hockey. Beginning from an activity that makes sense to teacher candidates supports them in connecting their own experience of that activity with mindfulness. For example, dance is a relevant background to draw upon, because dance is a body-based activity that includes repeated attention to one’s breath. Drama is another relevant background, since its training includes a focus on present moment awareness - acting out a
character and working with one’s own emotions. Breathing practices are also commonly used in preparation for drama. By situating mindfulness practices within these various disciplines, the course gradually succeeds in becoming more tangible to the various members of the class. Even to those who do not partake of such practices, the experience of their peers often serve as helpful metaphors for accessing their own relationship to the practice of mindfulness.

Physical activities such a running were also commonly shared by many teacher candidates. Runners can identify with the mental discipline the sport requires, and finding a sense of flow while running. Flow is a concept introduced by Csíkszentmihályi (1997) referring to a state of being totally present in what one is doing. Flow is characterized by the perception of slowing down and being more aware of the body. Many teacher candidates participating in sports such as hockey, soccer or baseball for example, identified with the concept of flow, and it supported their understanding of mindfulness in the context of their sport or activity. Learning mindfulness through an activity that teacher candidates are already versed in, helps them transfer learning into other activities in their life, as well as to the formal mindfulness practices such as sitting meditation or mindful yoga. There are numerous examples of elite athletes using the practice of mindfulness as well as the concept of flow for enhancing their performance. For example, Phil Jackson, a world renown basketball coach who led the dynasty Chicago Bulls team which included Michael Jordan, to numerous championships used mindfulness meditation with his players.

My own experience on meditation retreat helped me to better understand the practice of mindfulness and running. When I was sitting a month-long silent mindfulness retreat, I began a jogging routine. I do not fit the image of a runner as I have a broad body and I am not exactly light on my feet carrying around 185 pounds on a 5’8 frame. Further, I have a history of hip disease and hip pain. I have a leg length discrepancy and have worn orthotics since I was twelve to help compensate. This description is simply trying to illustrate that running is often not a pleasant experience for me as I struggle to get into flow. While on meditation retreat I had a routine loop that I would run that included a few inclines. My practice of staying present in meditation transferred into my running as I began to notice that when I began running up a hill my mind would shift to a thought or fantasy in order to escape the unpleasantness of running up the hill. I would find myself at the top of the hill without being present throughout the process of getting there. Often in meditation practice, and in life, we tune out when something becomes
difficult. This example from running helped me see when I was tuning out, which I could then transfer into my formal meditation practice, and in daily life.

Fishing was another unique background through which a teacher candidate came to understand mindfulness. The first assignment in MBWE asks teacher candidates to explain their intentions for being in the course, and to introduce themselves and highlight something they are passionate about in their life. The intention assignment is followed up with a one-on-one interview (which takes place within the first 3 weeks of the course). A student named Peter highlighted fishing in his intention assignment, and with him I was able to explore a number of valuable connections between fishing and mindfulness. Simon was excited by this exploration and took on the practice of mindful fishing. Simon was then able to grasp mindfulness through the example of staying present to the feel of the fishing line between his fingers, and how his attentiveness influenced his performance and the quality of his experience. I mention this singular case, again, to emphasize the way in which individual experiences can often provide helpful models and metaphors for the rest of the participants in the course. Through Simon’s interests, the course went on to develop and sustain a number of helpful comparisons between mindfulness in general and the particularities of Simon’s experiences fishing. Catch and release, for example, became dominant terms through which the course as a whole moved further in its conception of mindfulness.

Connecting the experience of mindfulness to an existing background is a key pedagogical strategy for enhancing engagement in MBWE. This list of backgrounds presented in this chapter does not represent an exclusive list of relevant background for learning mindfulness. Rather, they are examples of how teacher candidates were able to draw on their past experiences in order to better understand mindfulness. Indeed, mindfulness can be understood from any background context as it has to do with a way of being that can be accessed in any activity. This finding is relevant to those teaching mindfulness in professional preparation, and other contexts, where students may be required to take such a course, and / or initially enter the course without familiarity or with high degrees of skepticism toward the course content. Helping to relate the concept and practice of mindfulness to existing ideas and activities is very much in line with a constructivist approach to learning. The course builds not as upon a new slate, but working with the materials that are given by prior experience.
Chapter Five

In the following five chapters, I present and discuss findings addressing the first research question of this study: articulating the value of Mindfulness-Based Wellness Education (MBWE) in teacher education. The findings have been divided into five main themes, each representing a distinct role that MBWE played in teacher candidates’ experience: (1) Personal and Professional Identity, (2) Reflective Practitioner, (3) Constructivist Learning and Holistic Vision of Teaching, (4) Social and Emotional Competence and Well-being, and (5) Teacher Candidate Engagement.

As discussed in the methodology chapter, those themes were developed through codes emerging from the data. Based on grounded theory analysis, I employed three levels of coding. The first level of open coding was used to generate ‘codes’. The second level of axial coding was used to organize the codes into themes, and the third level of selective coding involved the refinement of the themes. I have included percentages for each code, representing how many of the total teacher candidates contributed to that particular body of research. To be clear, these percentages are not meant to demonstrate that a majority of teacher candidates spoke to each theme considering the research process was iterative and followed a grounded theory approach. Grounded theory uses a broad approach in order to capture new perspectives, which after being highlighted are further examined in subsequent research. For example, in each of the three rounds of interviews there was a question related to teacher candidates’ personal well-being after experiencing MBWE. In comparison, a question about teacher candidates’ experience of reflection in MBWE became part of the interview protocol in the second round of interviews, and a question about teacher candidates’ experience about learning style in MBWE was added in the third round of interviews. Therefore, it is expected that fewer teacher candidates’ contributed to codes related to their experience learning in MBWE. Codes and themes are not legitimized based on the percentage of teacher candidates that contributed to them. The codes and themes with fewer contributing voices represent potential new insights.

The following chapter is laid out into the five themes. To begin each section, the theme will first be presented in relation to the literature to create a clearer understanding how I am defining the construct. I will then present the codes that came together to create the theme and use quotations from the interviews to exemplify each of the codes. I provide a discussion relating
the codes to the theme to demonstrate my process in bringing the codes together, and further address the relevance of the themes to teacher education and existing theory.

5 Personal and Professional Identity

Teacher identity has become a recognized learning outcome in the area of teacher education (Kosnick & Beck, 2009; Danielewicz, 2001; Rodgers & Scott, 2008). Though it has been conceptualized in various ways, the literature frequently defines identity in teacher education using both personal and professional dimensions (Stenberg, 2010; Beifaard, Meijer & Verloop, 2004). Under the rubric of personal identity, what is usually considered are the various attitudes, beliefs and values that inform one’s pedagogical practice. It is generally accepted that varying degrees of self-awareness in this respect will inevitably contribute to the various decisions and interactions that are made in the classroom (Larivee, 2000; Korthagon, 2004; Connelly and Clandinin, 1999). By comparison, professional identity refers more specifically to teachers’ perceptions of their own roles as a teacher. This includes all matters of authority and responsibilities, philosophy of teaching and teaching practice, that are all heavily influenced by continued experience in the classroom and self concept (Warin, Maddock, Pell & Hargreaves, 2006; Tielma, 2000). Considered together, teacher identity encompasses the changing perceptions teachers’ hold for themselves as persons, in the classroom, and as professionals in the wider school community.

Personal development is a key part of teacher identity, and yet is often overlooked or glossed over superficially in teacher education (Kosnick & Beck, 2009; Danielewicz, 2001; Alsup, 2006; Hagger & McIntyre, 2006). Teacher education is an important opportunity for teacher candidates to begin investigating their underlying assumptions, and beliefs that they hold as individuals which in turn may be influencing their decision making in the classroom. Danielewicz (2001) supports the need for processes specifically targeting personal identity, or what she calls ”pedagogy of identity development” (p. 133).

The cultivation of self-knowledge is a foundational aspect within both Western and Eastern cultural traditions. It is often said that Western wisdom and psychology hinges on the Ancient Greek oracle at Delphi, inscribed “know thyself” – a caption that has since encouraged tendencies towards clear and coherent narrative thinking. Developing a coherent narrative is the
process of making sense of our journey in life, seeing our place within the wider context, and identifying how our past led us to our preset reality. By comparison, an Eastern wisdom and Buddhist Psychology of “know no-self” begins from a place of cultivating present moment awareness, precisely in order to gain distance from one’s personal narrative. Amongst other things, these two approaches to the self differ in their approach to change. Western psychology typically approaches self-development from a problem based paradigm or deficit approach; that is, where there is always something to fix, or improve upon. By contrast, a Buddhist Psychological approach seeks to cultivate an acceptance of the self as the primary factor in development and change. In other words, the No-self within eastern tradition moves from knowing the contents of the narrative self, to a greater appreciation for the broader context in which these narratives arise. Learning to relate to self is then, more properly, a matter of learning to relate to our thoughts (for example, throughout mindfulness practice, one is frequently reminded that “thoughts are not facts”). Learning to relate to our thoughts is transformative, and an important step in developing mindfulness, and responding mindfully in the classroom. For example, learning to be non-reactive to destructive thought patterns forms a new way of being in the world and in the classroom, a bridge between personal and professional identity. In what follows, I have outlined a series of distinctions in Table 5.1 to help in identifying key areas of teacher candidates’ experiences in MBWE that make up this theme.
5.1 Personal Development: Self Care

Personal development was a key code that emerged when listening to teacher candidates’ talk about their experience in MBWE. Many mentioned that attending to personal development was a unique focus within their teacher education program. One key aspect of personal development was identified as self care. This term highlights the time teacher candidates took out from their schedule in order to develop positive lifestyle behaviours in supporting themselves.

Developing the personal well-being of the professional-in-training is not typically a component of professional preparation. Such contrast begins in K-12 education whereas the
formal curriculum focuses on literacy and numeracy and a secondary focuses (only now gaining more importance) are issues of social and emotional development. Issues of healthy human development include personal development at all stages of education as we are continually in process of identity formation across the lifespan. Many teacher candidates are in their 20’s and still in formative stages of adult human development, and in turn professional preparation needs to support the ongoing development of the whole person, and not simply the skills and knowledge of the profession.

Interestingly, for many of the teacher candidates involved in the study, self-care not only represented an underdeveloped dimension of their experience in teacher education – but that it also was often associated with feelings of guilt. Teachers often reported feelings of guilt when participating in MBWE, and spending more time on their well-being opposed to doing other work such as lesson plans or readings. If nothing else, this highlights the current paradigm in education and our culture – and the lack of value attributed to personal well-being when caught up in the busyness of school and work. In order for teachers to model a balanced and healthy lifestyle, teacher candidates need to learn how to live such a balance. For many teacher candidates, the pressures of striving for success leave them without the competencies for slowing down and caring for self.

Teacher candidates used self-care practices as a way of coping with the stresses of teacher education, and especially practice teaching. Developing a routine of self-care practices as part of a wellness lifestyle becomes an important part of teacher candidates’ personal and professional identity. The following quote from Sarah, a teacher candidate, expresses the novel focus on personal well-being as part of MBWE.

*I think it is the attitude of personal development for professional development, it is not something that is often addressed in the program. It is always like how to get more skills, put more on your resume, or bring more and more into the classroom activity wise, workshops on differentiated education, how to write a good IEP, and tribes and all this kind of stuff, this is the first course that focused on you, lets focus on you being ok to be then with your kids. I found that it is something that there wasn’t a lot of here and that is was so beneficial. . . . Taking*
those minutes, those hours for myself is just as worthy pursuit as throwing myself entirely into lesson planning, my career whatever it is.

The following quote from Teresa, a teacher candidate, highlights the importance of supporting teacher candidates with self-care practices.

*There is no other class that talks about what would be good for you as the learner or the teacher, there’s only what you can give to the school and that’s a huge part of it, but if you don’t work on anything to do with you then you can’t really give that much. . . there is nothing to support you in helping yourself so that you can look after others. That’s something that is missing for sure.*

This next quote from Ryan discusses the importance of focusing on teacher well-being in order to be able to be an effective teacher.

*One key difference is that in other classes they show you how to teach but in this class its more about showing you how to become the person that is able to teach in a constructive way, in a positive way for both yourself and your future students. I think that is a really big difference. I am going to go back to a story told in class. The one where there were people jumping into the river and floating downstream and people downstream were saving them and getting great new ways to save and rescue as many people as possible. But they never looked back to the cause as to why people were jumping into the river in the first place. I can apply that to this course as well in that in other classes of teachers college they show you how to save all the kids and to prevent them from falling through the cracks. Having differentiated instruction and trying to reach as many students as possible but at the same time there is never anything to how to save yourself - and when things go bad for you how can you save yourself because I feel like if you can't take care of yourself and keep yourself healthy then you are not going to be able to do great things for the kids either. That's one big thing the course taught me.*

Continued personal development and self-care is not often an explicit focus within professional preparation program or higher education and yet the person can never be removed from the
learning process or the profession. Supporting teachers in developing self care practices and focusing on their own personal development benefits both the process of learning in teacher education, on practicum and builds positive behaviours that will support them later in their careers.

5.2 Mind-Body Awareness

This code articulates teacher candidates’ increasing levels of mind-body awareness being developed in the MBWE program. Mind-body awareness includes a heightened sensitivity to the subtle shifts taking place in the body and mind that often go unnoticed. The practice of mindfulness meditation enhances this awareness through the practice of intentionally paying attention to the mind and body in the present moment.

Staying grounded in the present moment invites awareness of physical sensations arising in the body, the energy of emotions, and thoughts arising in the mind, as well as the interactions between them. This is similar to biologists who go to learn about birds as they spend hours simply watching bird behaviour. The longer the biologists sit and watch, the more they come to know about birds behaviour and tendencies. In mindfulness practice, we are doing the same thing except we are watching ourselves, which proves to be a difficult practice.

The following quote from Alexandros, a teacher candidate, demonstrates his growing understanding of the relationship between the mind and body.

*Definitely before the course thoughts were just thoughts that would just come and go and I wouldn't think twice about them. After the course and during the course, is when I realized that if they were negative, especially if they were negative the impact they would have on me. Impact on me not just mentally but also physically.*

In the quotation below, Tania, a teacher candidate, articulates her experience working with challenging emotions.

*When you spend a little bit more time sitting on something, on an emotion... Sort of going through it first, letting yourself feel what you are feeling. Don't jump to any conclusions, don't try to fix it, just let yourself be angry for a minute, let*
yourself be sad. . . . Normally for me I just push that away, anger is big one for me, I don't like being angry at all. But, trying to sort out why, where did it come from, instead of “no you are not a person who gets angry” . . . if you don't take the time to really look at it, and see how everything came together it can be disastrous. It can become about the other person, and really it is you.

In Kabat Zinn’s (2005) book “Coming to our Senses”, he speaks to this code of becoming more aware of what’s actually happening in our bodies and our minds. Mindfulness in its simplest sense can be understood as heightening our awareness of our senses so we more fully experience our various senses such as smell, sound or taste. As well, this conception is further nuanced by including our own psycho-emotional states within the field of the sensory. As developed within Buddhist psychology, mindfulness practice considers thoughts as a mental formations that are just another part of our sensory experience – no different from hearing or seeing. The purpose then, of mindfulness practice, is to develop a greater awareness of our thoughts as they arise in the mind and to attend to them as part of the wider fabric of our experience. By attending to our own psycho-emotional states, we are less likely to be governed by them and have important implications for identity formation.

As discussed in the literature review, recent neuroscientific research distinguished between two areas of brain activity that are stimulated in relation to the notion of self. While one part of the brain was seen as active in dealing with a “narrative” conception of the self – which refers to the common narrative voice we typically have in our minds – a more “experiential” self activated a different area. Experiential self refers to a more embodied awareness of the self, the sensory-motor or kinesthetic present moment experience of body. Using this model, studies have been undertaken in order to understand brain activity in areas related to self in populations who have undergone an eight-week Mindfulness-Based Stress Reduction (MBSR) program compared to a control (Farb et al., 2007). This study compared brain images before and after an MBSR program. After the MBSR program, brain images showed reduced activation in areas related to the narrative self, and more activation in areas related to the “experiential self.” The experiential self refers to an embodied experience of knowing self, one that is distinct from a narrative knowing of self.
The code mind-body awareness relates to this neuroscientific finding by suggesting that teacher candidates were tapping into their experiential sense of self within their process of identity development. A quote from a teacher candidate in her final paper in MBWE describes her experience distinguishing various aspects of self.

*Mindfulness meditation essentially helped me escape the hold of my mind. There is now a comfortable distance between my thoughts (i.e. my ego, or narrative self) and my deeper, experiential self. This “deeper” self is more real, and wiser. It can stand back and watch the trivial and often childish preoccupations of my ego. Now, when I start to play familiar records in my head, there is a part of me that honestly cannot take myself seriously. Spontaneously, I will begin to smile as I play the record, and increasingly, the record does not play. Past occurrences in my life that I exaggerated in my head as major “events” no longer have the same hold on me as they once did. (Lorna – teacher candidate)*

Accessing the experiential self and reducing activation in the narrative self has implications in reducing tendencies in being caught up in existing constructs and thoughts patterns which may not be contributing to an accurate perceptions or sense of self. The following code also makes a further link between the experiential self having an impact on the narrative self.

### 5.3 Clarifying Values and Beliefs

Mindfulness practice also plays an influential role in the clarification of values of and beliefs. Building from the previous discussion on the narrative self and the experiential self, these two selves are also explored in a model called the Basic Levels of Self (BLoS) (Roeser, Peck & Nasir, 2006; Roeser & Peck, 2009). The BLoS model distinguished between the I-self and Me-self. In comparing this model to the study above, the Me-self relates to the narrative self, whereas the I-self is similar to the experiential self. Educational psychologists Roeser and Peck (2009) distinguish the two selves on a continuum of awareness. In doing so, they associate the consciously motivated experience with the I-self, while the unconscious and automatically motivated experience is associated with the Me-self. The BLoS model describes the multiple levels of underlying narrative that contribute in the makeup of the Me-self, while outlining various stages of development toward awarenesss of the I-self. Cultivating the I-experiential-self
has healthy development associated with it such as emotion regulation (Farb et al., 2010), as well as influencing the Me-narrative-self toward wholesome characteristics such as personal growth, moral living and care for others (Roeser and Peck, 2009). Put differently, cultivating the experiential self enlightens the narrative self with heightened awareness for example of values and beliefs. Roeser and Peck (2009) further outline mindfulness-based practices as pedagogical components that support the cultivation of the I-self, and the importance of this function within healthy human development.

Participating in MBWE includes taking more time for mindfulness practices, and completing weekly reflections on various dimensions of wellness that contribute to teacher candidates better coming to know themselves. This code highlights teacher candidates’ experience gaining insight into more deeply held personal values and beliefs. Creating opportunities for clarifying values and beliefs is a core level highlighted by Korthagan (2004) as an integral part to personal and professional identity development. The following quote from a teacher candidate illustrates a more in-depth process of clarification.

*This year was looking at why I do anything - what is the reason, what is the motive? Taking the time - asking myself is this what I want? Why do you want it? Is it because that's what you are supposed to want - what society says you are supposed to want? What do you really want in life? The big questions, because than all the little things fit into that. That is something I learned a lot in the MBWE course. (Tania – teacher candidate)*

Deborah, a teacher candidate, describes her experience of personally engaging in MBWE.

*And that's why I want to make it a lifestyle and not just a thing to do... I took this (MBWE) on as something that I needed rather than something I would put into a classroom. It was something I wanted to teach myself and then live the teaching.*

Florence, came into teacher education after already having trained and worked as a nurse. Being a health care professional, she was already introduced to the stresses of working in the field. Florence had no background with mindfulness or yoga prior to beginning MBWE, yet took on the course with genuine engagement, and in turn became a real advocate for the importance of this type of training as part of professional preparation. Florence describes her experience of
grappling with deep issues and not simply working at a superficial level, which is a necessary part to bringing about core change.

*Equity and social justice was our major focus in school. I think other courses in teacher education did a good job making us aware of the injustices and yes there was a big focus on change and what you can do to change, but I don't think a lot of people are necessarily strong enough to do that and I didn't find any other course focused on building that strength. Strength to deal with situations. The idea of strength - you have to know who you are and know your identity and know how to deal with situations that will be very uncomfortable for you. . . . Exploring the many aspects of myself through the course, opened my eyes to a lot of challenges I had with my own values and beliefs and my own identity. I thought I was strong and knew what I wanted, and what I valued, and what I could contribute into a classroom. Digging into myself, I realized there were major gaps that I needed to work on.*

Clarifying values and beliefs in one’s life is an on-going process in human development. This code highlights the intensive process of grappling with personal values and beliefs that is facilitated in MBWE. Whereas other courses in teacher education call awareness to issues of social justice and serve to heighten awareness of biases as they may relate to being in the classroom and teaching, MBWE directs focus within teacher candidates’ personal lives to see how they are enacting their values and beliefs, and to recognize the disconnect between actions and values. Engaging values and beliefs on the level of teaching remains to some degree as “what if” hypothetical’s, and not necessarily as direct for teacher candidates as interrogating their daily lived experience.

### 5.4 Teaching Identity

In addition to supporting personal dimensions of identity development, MBWE also encouraged teacher candidates to contemplate their identity in the classroom. Teaching identity includes how one believes they are being perceived, and how one perceives oneself in the classroom and in the profession. For example, MBWE focuses on becoming a mindful teacher, which is discussed and practiced as ways of staying present in the classroom amidst all the busyness. Tania, a teacher
candidate spoke about her experience in MBWE and how that informed how she wants to be seen in the classroom.

*MBWE is the course that pops up in my brain whenever I am thinking about planning a lesson, or just how I want to approach my role as a teacher. I want to be that kind, patient, welcoming teacher and I think that this class helped me to start cultivating that.*

The quote below from Deborah, a teacher candidate distinguishes between the idea of mindful teaching and the skills necessary for enacting mindful teaching that are practiced in MBWE.

*The course taught a lot about the kind of teacher I want to be. It taught me a lot about how I wanted to set up my classroom, how I want to be seen… I think the strengths of this program is that is says, yes you might want to be a mindful teacher but do you know how to be a mindful teacher, you want to be a thoughtful teacher but do you know how to be a thoughtful teacher.*

This code makes an important link to teaching practice, as teacher candidates found the MBWE program valuable in developing their professional identity. MBWE provides opportunity for teacher candidates to move beyond fanciful wishes of who they would like to be in the classroom, and learn the skills for enacting mindfulness in the classroom.

Teacher candidates developing their personal and professional identity plays a significant role in how teacher candidates see themselves in the classroom as well as experience themselves in the classroom. This process of in-depth learning for teacher candidates is part of process of adult human development. The degree of adult development is an critical facet in the profession of teaching; the level of a teacher’s self-development plays one of the most influential roles in who and how teachers are in the classroom. Teaching plays a critical societal role in the development of healthy and whole children and adolescents, and thus it seems only natural that we apply high standards of consideration to the development of their educators. Facilitating adult identity development is complex, especially in the forum of professional preparation. The next section is a discussion of the complexities in using mindfulness training as a pedagogical practice for identity development in teacher education.
5.5 The Process of Identity Development in a Secular Worldview

The risk of indoctrination is a legitimate concern with regards to the integration of mindfulness practices into all levels of education. Within a system that acknowledges the benefits of diversity, there is resistance amongst public educators toward any initiatives that outlines a set of standards that may be related to fundamental core values or beliefs. As well, considering public education is a secular system of education, the integration of any curriculum that may be related to a religious tradition are often seen as suspect. Given that mindfulness is a practice that stems from Buddhist Psychology, and that focuses on basic elements of human kindness, it seems important to clarify its role within secular society.

Mark Greenberg, (2009) distinguished contemplative education from Social and Emotional Learning by attributing the former with a worldview of interdependence. Interdependence here refers to a phenomenological experience of connection to the broader social and environmental reality of which we are part. Put differently, it is a paradigm that is known without attachments to the narrative self; self is known as part of one interconnected whole. In comparison, social and emotional learning develops competencies for healthy and harmonious living, however without the underlying framework that all things are interconnected. For Greenberg, the realization of such interdependence represents a higher level of awareness along the continuum of human development. As in other models of adult development, interdependence refers to the experience of what Maslow (1968) calls peak experience, what Kegan (1994) describes as a heightened level of relationship between subject-object, and what Wilber (2000) outlines as “no boundary awareness”. With the MBWE program, those models of awareness function as part of the process of teacher identity development. Teachers developing a greater realization of the interconnectedness of which they are apart, are then able to reflect this notion into their daily living and teaching.

---

5 Roeser, who is a senior program coordinator and regular faculty member with Mind and Life Institute, with his colleague Stephen Peck (2009) refer to contemplative education as “a set of pedagogical practices designed to cultivate the potentials of mindful awareness and volition in an ethical-relational context in which the values of personal growth, learning, moral living, and caring for others are nurtured (p. 127).”
Interconnectedness is not simply a romantic notion for peace. Many systems of knowledge including science and theology are based on theories of relativity. Most notably from a scientific perspective, quantum physics points to the interrelatedness of the entire universe on molecular and subatomic levels (Bohm, 1980; Capra, 1996). Not only are we created from our past and within our cultural and political settings; we also continue to be intimately connected to all forms of life from the beginning of time. Separateness is an illusionary aspect of mind, developed as a function of our narrative self, as Albert Einstein famously said:

*A human being is part of the whole we call the universe. A part limited by time and space. He experiences himself, his thoughts and feelings as something separated from the rest, a kind of optical illusion of his consciousness. This illusion is a prison for us, restricting us to our personal desires and affection for only the few people nearest to us. Our task must be to free ourselves from this prison, by widening our circle of compassion, to embrace all living beings and all of nature.*

In coming to utilize our mind’s capacity for mindful awareness, we develop greater sensitivity and insight to the interconnectivity in which we live.

Over the last several years, this question of worldview has appeared frequently within the mindfulness community (i.e., Mind and Life Summer Research Institute⁶). The question arises whether learning mindfulness or contemplative education more broadly requires the adoption of certain principles or worldview (Roeser, 2010). Maintaining the ideological neutrality of mindfulness practices is more difficult, when clearly, one would not want to extend the achievements of mindful practice, for example, to a sharpshooter who has cultivated an excellent ability to focus. By contrast, mindfulness is an invitation to focus within an ethical paradigm, and with the direction that is guided by interdependence and compassion. What this explanation makes clear is that mindfulness does have a values based orientation.

---

⁶ Mind and Life Summer Research Institute (MLSRI) is a weeklong learning institute bringing together neuroscientists, researchers, and contemplatives to explore various topics surrounding mindfulness and contemplation. The focus of the 2010 MLSRI was on mindfulness in education.
A qualitative dissertation by Butler (2007) found that participants who went through an eight-week Mindfulness-Based Stress Reduction program experienced an acculturative process whereby developing qualities such as awareness and acceptance of one’s feelings is not highly valued in American culture. This finding relates to the current discussion on worldview because it suggests the process of mindfulness-based training does acculturate a worldview. For example, a common shift in perspective arises in MBWE in how teacher candidates are asked to bring acceptance to experiences that are challenging or uncomfortable. For many teacher candidates, when there are unpleasant sensations such as pain in the body or difficult emotions present such as anger, the typical response is avoidance or wanting it to stop. In MBWE teacher candidates learn to accept and welcome that which is unpleasant or uncomfortable and learn to breathe with it. This practice is difficult for many teacher candidates because it is foreign to accept that which we do not want. Teacher candidates learn that acceptance isn’t resignation; acceptance is part of the process of becoming fully present with. In mindfulness practice as in life, when we come fully present with what is, that moment of non-struggle to push away from or pull toward provides perspective. From a place of greater perspective, teacher candidates choose a wise next course of action. Learning mindfulness does create a shift in the way teacher candidates experience and view the world, just as the process of human development is qualified by an increasing complex worldview. Lessons in MBWE are not prescribed dogma that is acculturated by force; a shift in worldview is learned through one’s own intention and commitment to the exploration of awareness.

There was a diverse representation of religious and ethnic backgrounds of teacher candidates enrolled in MBWE as well as in the sample selection for this study. Findings in this study demonstrated that MBWE was taught in an inclusive way and did not raise religious or moral concerns for teacher candidates. For example, the finding that MBWE is a constructivist learning experience for teacher candidates demonstrates that the student-centred and self-directing nature of the course allowed teacher candidates to engage in the material from their own set of beliefs. Being able to guide their own learning and inquire into areas of interest provided a safe and open learning environment for teacher candidates of all belief backgrounds. Learning mindfulness is essentially student-centred because it requires teacher candidates to heighten awareness in daily life, and in relation to one’s own values and beliefs. The curriculum is dependant upon the person who is engaging with it.
Teacher candidates also found the flexibility of practices to be a helpful pedagogical aspect of MBWE, which is also in line with constructivist learning. Teacher candidates felt free to focus on aspects of the course they connected with, instead of feeling forced to address all aspects of the curriculum. Learning mindfulness does not require one to blindly adopt a worldview of interdependence, or outline guidelines for moral living. The emphasis when learning mindfulness is to investigate for oneself in order to build from one’s current body of knowledge and way of viewing the world. The next section further explores the notion of acculturation in teacher education by using the example of social justice, and then relates mindfulness training within the framework of critical pedagogy.

5.5.1 Interdependence Worldview in the Development of a Critical Pedagogy

Social justice and equity are commonly shared values and beliefs explored and cultivated in teacher education (Zeichner, 2009; Cochran-Smith, 2004). The pursuit of social justice and equity in education, often referred to within a framework called critical pedagogy, calls for a reflective awareness amongst educators towards any instances of oppression. Peter McLaren (2003) a leading voice of critical pedagogy articulates the need for this perspective.

*The education system gives those who begin with certain advantages (the right economic status and thus the right values) a better chance to retain those advantages all through school, and ensures that minority and economically disadvantaged students will remain at the bottom rung of the meritocratic ladder.*

*(p. 240)*

Critical pedagogy calls for the ongoing development of a critical consciousness geared toward heightening awareness of personal and institutional biases.

Critical pedagogy and mindfulness are similar in aim, yet their processes of development are different. Whereas critical pedagogy is normally taught as a function of intellectual intelligence (in the head) developing as a function of our narrative thinking, mindfulness is grounded in a more experiential notion of self, and practice of cultivating the heart. More specifically, MBWE attempts to ground critical consciousness within an experiential way of being, which is distinct from a moral duty to act.
Buddhist Psychology is a tradition aimed at alleviating suffering; critical pedagogy is based on freedom from oppression. One distinction is that critical pedagogy is often framed within a negative framework, for example resisting capitalism as a political movement that reinforces oppression. Buddhist Psychology stems from over 2500 years ago and not within the context of a capitalistic society. This in turn brings up the question of where does suffering exist and where does oppression exist and how are they related. From a Buddhist perspective, freedom from suffering is a process of training the mind to live more fully in each moment. The root of suffering is our tendency to indulge the desires of the thinking mind and identification with self; the foundation that keeps us captive to the suffering in the circumstances of our life. One might think of capitalism as a system that nurtures greater attachment to a desiring mind. Part of the process in freeing others and ourselves from injustices is freeing ourselves from the grips of our own attachments.

Present day practitioners of mindfulness do not sit idly by observing their breath and gazing at their navels while watching injustices take place. Mindfulness supports wise and peaceful action in the face of inequity; action stemming from a place of love and not hate. Nelson Mandela in his autobiography “A Long Walk to Freedom” speaks to the importance of widening one’s circle of compassion in order to take action from a place of love.

_It was during those long and lonely years that my hunger for the freedom of my own people became a hunger for the freedom of all people, white and black. I knew as well as anything that the oppressor must be liberated just as surely as the oppressed. A man who takes away another man's freedom is a prisoner of hatred, he is locked behind the bars of prejudice and narrow-mindedness. I am not truly free if I am taking away someone else's freedom, just as surely as I am not free when my freedom is taken from me. The oppressed and the oppressor alike are robbed of their humanity._

Mindfulness-based training for teachers can be understood as a deep process of identity development, a process of seeing more clearly one’s own oppressor and oppressed, and cultivating an attitude of compassionate action.
Paulo Freire (1997), a leading voice in critical pedagogy, in a chapter entitled “Under the Shade of a Mango Tree speaks about his own practice of interdependence and how these experiences nurtured his work in the world.

To come under the shade of this mango tree with such deliberateness and to experience the fulfillment of solitude emphasizes my need for communion. While I am physically alone proves that I understand the essentiality of to be with. It is interesting for me to think now how important, even indispensable, it is to be with. To be alone has represented for me throughout my lifetime a form of being with (p.29).

As in the footsteps of Freire, helping teacher candidates practice personal presence in the world, which is facilitated by mindfulness training, is a necessary process in their development as adults and in their work of critical pedagogy.

5.6 Summary

Identity formation is regarded as an important initiative and research area in teacher education. Teacher candidates spoke about their process of personal and professional identity development in MBWE as an opportunity to: practice self care, engage with a more experiential sense of self, grapple with core beliefs and values, and learn the skills for enacting a vision of mindful teaching. Cultivating mindfulness plays a unique role in identity development; fostering an experiential self, which provides a new perspective in life opening new insights in relation to ones narrative self. Mindfulness training can be seen as an integrative pedagogy for authentic personal and professional identity development in teacher education. Although mindfulness stems from a Buddhist psychology, the practice of paying attention is inherently a secular exercise that is learned in a constructivist manner. Learning mindfulness may be regarded as critical consciousness that prepares teacher candidates for enacting social justice and equity in their classroom.
Chapter Six

6 Reflective Practice

The practice of reflection is regarded as an important aspect of teacher education (Loughran, 2006; Laboskey, 1994; Grimmett & Erickson, 1988). Yet, despite its popularity within the realm of theory, best practices and processes for cultivating a reflective practitioner remain unclear (Zeichner, 2009; Hatton & Smith, 1995; Korthagen, 2004). Reflection can be understood as a dialectical process, whereby one suspends immediate judgments and preconceptions to allow for a more careful consideration of one’s actions and decisions (Dewey, 1933). This emphasis on reflection within action was popularized in the 1980’s by Donald Schon (1983, 1987) in his seminal works on professional practice: The Reflective Practitioner, and Educating the Reflective Practitioner. In those texts, Schon distinguishes between reflection-on-action and reflection-in-action. Reflection-on-action looks back on what occurred in practice in order to improve on future endeavors. By contrast, reflection-in-action implies awareness and modification while in the very midst of the practice itself. Schon (1983) argues that reflection-in-action offers us a much needed alternative for adaptive problem solving. Rather than relying on technical knowledge from fixed sources (i.e., solving problems based on existing theory), reflection-in-action relies on the identification and assimilation of feedback while in the midst of practice. Here, reflection shapes the unfolding of action.

Within my study, the theme of reflection arose in various ways. Table 5.1, below, presents the particular codes and a brief description of each code that contributed to the development of this theme within my research. What follows is a more detailed description of each code, including extracts from the interviews with teacher candidates that demonstrate the ways they spoke about these.
Table 5.1
Skills and Awareness of Reflective Practice

<table>
<thead>
<tr>
<th>Codes</th>
<th>Description</th>
<th>Percentage of Teacher Candidates Contributing to Codes (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critique of Teacher Education Reflection</td>
<td>Teacher candidates were uninspired with the type and volume of reflection in their Initial Teacher Education degree program.</td>
<td>66%</td>
</tr>
<tr>
<td>Reflection Focused on the Personal</td>
<td>Content of reflections in MBWE was more focused on teacher candidates’ personal life, and in turn unearthed deeper insights related to self.</td>
<td>38%</td>
</tr>
<tr>
<td>Open versus Directed Structure in Reflection</td>
<td>Teacher candidates found the structure of reflection in MBWE to be more open-ended compared to the structure of reflection in Teacher Education that was more directed.</td>
<td>57%</td>
</tr>
<tr>
<td>Learning Mindfulness requires reflection-in-action</td>
<td>The process of learning mindfulness is a continual feedback loop in self and relational awareness</td>
<td>19%</td>
</tr>
</tbody>
</table>

6.1 Critique of Teacher Education Reflection

Initially in the interviews, I did not ask teachers about their experience with reflection. However, after many teacher candidates brought up their impressions about reflective practices in their program, in later interviews I prompted teacher candidates specifically about their experiences
with reflection. One response, in particular, was often repeated: teacher candidates were “reflected out!” Teacher candidates offered cynical responses about their reflective assignments, and sighed or groaned about the amount of reflection required of them. Overall, teacher candidates found reflection in ITE to be restrictive, often describing feeling that they were intended to follow a specific formula in order to reflect ‘correctly’. Students frequently referred to these assignments as “superficial exercises” that had little to do with their own interests or experiences:

*A lot of the reflections within the program were very superficial . . . in that you have a requirement that you have to fulfill whether it is useful to you or not and so a lot of it is trying to fill those two pages. (Joel – teacher candidate)*

*When I was given the assignment of doing a reflection for the other courses, it was like here is the reflection you have to fill out. I felt like I was just going to fill it out so I can hand it in. When I finished a reflection in the other courses, I would sit there and say to myself, I feel like that was a waste of time, like it didn't really help me. (Chandra – teacher candidate)*

This code identifies the challenges many teacher candidates experienced with reflection in their teacher education program. Highlighting the challenges teacher candidates experienced does not suggest the type of reflection being done in teacher education is wrong and does not have its place. Indeed, teacher candidates’ response to their experience of reflection may be indicative that benefits of this practice for first time users is not immediate, especially if the exercises are not directly linked to ongoing practice in the classroom. Further, such experiences of reflection, highlight a difference in the content and style, or the “what” and “how” of reflection in MBWE.

### 6.2 The “What” of Reflective Practice: Personal Aspects of Living and Teaching

Typically, much of the content being asked of teacher candidates in reflective practice focuses on relating theory to practice. By contrast, the content of reflection completed in MBWE focuses more on the individual continuum between living and teaching. Within the first week of the course, for example, students reflect on their physical wellness through the formal mindfulness practice of the body scan, and the informal mindfulness practice of mindful eating. Teachers are
then encouraged, through exercises, to make slight variations to their ordinary routines and to monitor the effects of these changes in their day-to-day experience (for example, not drinking coffee). Again, the purpose of introducing these slight variations is to turn teachers inward, and accustom them to their own personal responses. Reflection in MBWE was completed in the wellness workbook, which teacher candidates kept throughout the course. Each week teacher candidates considered a new dimension of wellness (i.e., emotional wellness) through the lens of mindfulness. In addition, the wellness workbook was a place for teacher candidates to reflect on their formal and informal mindfulness practices, and readings from the week. This included various aspects of one’s life, from the emotional and social to the physical and spiritual.

Many of these personal dimensions have been recognized as important content for reflection in teacher education (Korthagen, 2004; Rodgers & Scott, 2008; Valli, 1993). Maintaining a personal focus represents what Korthagen (2004) refers to as “core reflection.” Core reflection, he says, can “counter the unconscious socialization and adaptation to a traditional school culture,” and “helps students direct their own development in accordance with their personal identity, and their inspiration and enthusiasm for their profession” (Korthagen, p. 91, 2004). Korthagen’s conception here is appropriate in responding to the current climate of professional training programs in higher education. It corresponds to what I found to be an overwhelming call from teacher candidates to make their reflective curriculum more meaningful and relevant. The following, for example, is a typical response I received while conducting my research.

*I found reflection [in MBWE] really beneficial because it wasn't just reflecting on teaching, it was reflecting on life in general and teaching as a part of that. I think it was something missing previously. It was like Sarah the person, Sarah the teacher and this brought them back together again which was great. Looking at how my past experiences, and day-to-day life impact my teaching and how my teaching influences that back. It was more holistic, and I found that a lot more helpful as a person, an educator and as a new professional. Where as the other [ITE] reflections had their place, but I found them isolated. (Sarah – teacher candidate)*
Teacher candidates investigating personal dimensions of their life brings to focus an often neglected distinction within professional preparation, namely the person in the profession. Personal beliefs, values and habits inform a teacher’s practical knowledge - i.e. knowledge that is highly valued within a holistic approach to teaching (Connelly, Clandinin & He, 1997; Schubert and Ayers, 1992). In going through the wellness workbook, teacher candidates are challenged to consider the various dimensions of their own experience that they bring into a classroom setting. The purpose is to offer a model for considering how each of these aspects is continuously at play – informing individuals’ decisions, strengths, and weaknesses etc. Again, the emphasis here is as simple as re-affirming the person while enacting the profession.

Fostering a more personal focus of reflection calls forth the complexity of teacher candidates addressing more deeply seated personal issues. Within the MBWE program, teacher candidates often faced personal challenges such as chronic stress, anxiety, depression, family conflict or negative body image etc. MBWE attempts to provide an opportunity for self-guided yet supported personal growth. While it is not intended as a space for therapy or counseling, it is intended to be a safe realm to consider - perhaps for the first time - how one’s personal challenges may be influencing their vocation as a teacher. Creating a space for teacher candidates to engage in a more deep process of personal growth is an important process of adult development and thus teacher development.

Developing a open and safe classroom community is key at the beginning of MBWE, especially since “Teacher Stress and Burnout” was an elective course for teacher candidates, therefore this was the only class outside of cohort based structure. Donny, a teacher candidate described his experience of feeling safe in MBWE.

*In the MBWE class, people were free to express themselves. I felt more open because of that. My best friend doesn't know that I have problems with anxiety. He might know, but I've never talked to him about it in my life. I spoke to perfect strangers in class about that. It was an environment where you felt comfortable to speak about something where there was no judgment. (Donny – teacher candidate)*

The feeling of a secure classroom environment supported teacher candidates in their openness to move more deeply into the course. Although other courses in teacher education may ask teacher
candidates to engage with reflections that include personal beliefs and values, the depth of inquiry is often kept at a more superficial level as more deeply held personal issues are not the focal point of the discussion.

Balancing the focus of reflection to include personal dimensions is a key in contributing to teachers developing a paradigm of personal growth. A paradigm of personal growth includes an ongoing process of introspection, where as one’s life is viewed as a journey, and challenges that present themselves are viewed as opportunities for growth. A paradigm of personal growth is an example of a commitment to life-long learning where as one’s life is the content focus of ongoing learning. Further, engaging in a process of personal growth nurtures teachers’ well-being and resiliency. One key aspect in developing a paradigm of personal growth is developing a reliance on self-knowing, in which teacher candidates seek knowledge from within. Teacher candidates learning to trust their own experience in opposition to looking outwards for approval or affirmation is an important area of personal growth and professionalism. Teacher wellness is an important enabling factor to teachers staying engaged in ongoing professional learning.

6.3 The “How” of Reflective Practice: Open vs. Directed Structure of Reflection

Another key distinction that arose in my research concerned the question of how to conduct a reflective practice. In their feedback of Initial Teacher Education (ITE), teacher candidates described reflections as often needing to conform to very specific guidelines. By contrast, the reflections in MBWE sought to find a form that was conducive to various individual modes of reflection. This quote articulates this difference:

_A lot of the reflections in ITE had a three R approach - retell, what you are reflecting, relate it to something, and reflect on it. For a lot of it, especially the relate portion, they wanted you to relate it to something academic like something you read in a book or the reflection is what would you do next time in the future or what questions do you have. Whereas the reflection in the mindfulness course was really more probing, more in-depth. (Alexandros – teacher candidate)_
Teacher candidates described being able to explore the practice of reflection in their own way, without it being too overburdened with strict guidelines. This style of reflection was seen as both a challenge and an opportunity for teacher candidates to develop their skills of reflection stemming from an existing orientation to their inner voice. Teacher candidates were thus challenged to find a meaningful voice for reflection – and discouraged from undertaking it as a kind of academic chore. Significantly, this distinction was seen as central in helping teacher candidates take responsible for their own trajectory as a reflective practitioner.

Reflection on actions in the personal lives of teacher candidates is a stylistic difference in how the reflective process is being undertaken, and bridges a gap in teacher education that is described as the problem of enactment. The problem of enactment refers to the tension that exists between theory and practice. One often hears the popular complaint: too much theory, not enough practice. “Learning how to think and act in ways that achieve one’s intentions is difficult, particularly if knowledge is embedded in the practice itself” (Darling-Hammond, 2006, p. 37).

This problem is difficult to solve and speaks to a lot of the frustration many teacher candidates refer to as “teachers college being too theoretical”. Ball and Forzani (2009) call for greater movement toward practice-based teacher education that focuses on practicing the skills of teaching and not simply talking about the skills.

_A practice focused curriculum for learning teaching would include significant attention not just to the knowledge demands of teaching but to the actual tasks and activities involved in the work...It would not settle for developing teachers beliefs and commitments; instead it would emphasize repeated opportunities for novices to practice carrying out the interactive work of teaching and not just to talk about it. (p. 503)_

Responding to this challenge, MBWE follows a more practice-based format – enabling teacher candidates to reflect on their day-to-day lives. Significantly, the emphasis is placed on experience as opposed to theoretical models. The experiential nature of learning mindfulness poses an interesting juxtaposition to the problem of enactment because the training offers the development of practical skills in the context of teacher education. Authentic experiences of reflection cultivate the lifelong skills and the disposition of being reflective practitioners.
In addition to the unique guidelines for reflection in MBWE, participating in mindfulness practice is a significant complement to the style of reflection. For example, one of the central ways in which mindfulness practice supports reflective practice is by helping teacher candidates slow down. One common barrier to being reflective is being in a constant rush, and not taking the time to reflect on and learn from experience. Mindfulness practice prepares our minds for a more active and so called ‘embodied’ mode of reflection. Embodied reflection is described by Varela, Thompson and Rosch (1991) in their highly regarded book in cognitive science, *The Embodied Mind*:

> Reflection does not need to be an abstract, disembodied activity . . . Reflection is not simply on experience but reflection is a form of experience itself – and that reflective form of experience can be performed with mindfulness/awareness. When reflection is done in that way, it can cut the chain of habitual thought patterns and preconceptions, such that it can be an open ended reflection, open to possibilities other than those contained in one’s current representations of the life space. (p. 27)

Within this conception, what is stressed is the breaking down of habitual patterns as a means of creating new insight. Whereas a dis-embodied reflection-on-action is more susceptible to the usual models and methods of interpretation, an embodied reflection is seen as more open to new paradigms, criticisms, and challenges. A dis-embodied reflection-on-action is not necessarily insightful because teacher candidates may be coming from a place Calderhead (1989) refers to as “ego involvement,” in which they are less likely to have perspectives that are self critical. If the ego is too involved in the reflective process, there is less perspective of self, and in turn a diminished ability to be objective of the situation. As Einstein’s famously said, “You cannot solve a problem from the same consciousness that created it.”

Schon (1983, 1987) speaks to the need for a shift in consciousness when speaking the importance of being able to reframe one’s perspective. A central objective of mindfulness practice is to develop new perspectives and to thereby reframe one’s experience. Reperceiving and decentering were previously discussed in chapter 2 as processes of reframing perspective and strict identification with self and promoting insight and change in clinical populations suffering with mental health issues such as depression.
One of the key mechanisms of reframing is practicing non-judgment because it allows one to stay with the experience as it is, as opposed to automatically reacting to a situation. In addition to understanding non-judgment as judgmental thoughts versus non-judgmental thoughts, non-judgment can also be understood as non-conceptual awareness; a process of ongoing awareness whereas any type of label (whether positive or negative would be viewed as judgment). Non-judgment does not simply mean being positive, it refers to refraining from attaching to any type of conceptual label. In harnessing a new means of reflection that includes balancing mindfulness practice with reflection and intentionally staying present in the process of reflection fosters a novel perspective and in turn novel insight. From a stylistic point of view, teacher education can focus on strategies that encourage a more embodied approach to reflection.

6.4 Learning Mindfulness Requires Reflection-in-Action

Reflection-in-action refers to the process of heightening awareness while in the midst of the action itself, as opposed to thinking back about the practice after it occurs. Mindfulness practice involves modifying one’s awareness on a continual moment-by-moment basis. Whereas most reflection in teacher education is conducted as reflection-on-action, the practice of mindfulness meditation contributes to the skills of reflection-in-action. For example, in a simple sitting meditation, one learns to recognize the speed and frequency with which our thoughts begin to wander. The practice thus involves becoming aware of how the mind has wandered, taking note where the mind has gone, and then returning oneself to the simple task of focusing on the breath. Again, this exercise serves as a key insight and reminder about the nature of the mind and how quickly we can lose track of its intended focus and intention. Developing mindfulness is thus the practice of maintaining an awareness of the continuing unfolding of moments.

The novel experience of learning mindfulness is a practice of reflection-in-action; a learning process in regulating attention to stay present from moment-to-moment. Below a teacher candidate describes their experience of reflection-in-action.

*The biggest thing that mindfulness helped me with was my reflection. Not just reflecting after a class, it was a conscious reflection while I was actually doing things. I would find that I was able to stop in certain places of a lesson, and actually right at that moment, make a conscious decision to reflect - I was more*
aware of what was going on, instead of waiting till the end when everything was finished . . . throughout my life I always thought that I was a pretty reflective person, but than came to realize that I would wait much too long, and I would miss a lot of opportunity to make better right at that time. (Florence – teacher candidate)

Learning how to drop back into the present is the first step of reflection-in-action as it provides the necessary perspective from which to reflect. Often, teachers are simply caught up in the busyness of teaching in the classroom setting, and thus neglect their own moment-to-moment awareness of how the class is unfolding, so they miss the opportunity to be aware of how their teaching and the class are unfolding in real time. Here, Tara a teacher candidate explains the impact of reflection-in-action on her teaching.

*By staying in the moment I was also able to adapt on the spot and change the lesson to meet the needs of the students and go with the flow of how the lesson was moving along. I was also able to ask good follow up questions to the students and provide good answers on the spot.*

Training in mindfulness supported teacher candidates in cultivating the skills and abilities to revisit present moment awareness during key moments in the classroom, enabling them to choose a best course of next action.

Mindfulness practice is a key pedagogical strategy for preparing new teachers for reflection-in-action because it cultivates a necessary ingredient: present moment awareness. Mindfulness practice cultivates the teacher’s aptitude for returning to the present moment in order to check-in with oneself, and to respond more acutely and more appropriately to the unfolding lesson and to the particular students that are involved. Coming back into the present is integral to the process of reflection-in-action. Mindfulness practice is a form of reflection-in-action that is transferable to the classroom (i. e., for interacting with students, regulating emotional reactions, and responding skillfully to challenging situations). An example of transferring the skills of reflection-in-action into the classroom is illustrated by the following story.
Simon, a teacher candidate told me his heartfelt experience of practicing mindful listening with his mother who was suffering with Multiple Sclerosis. Simon was 24 and described the difficulty spending quality time with his mom when she was not well. Practicing mindfulness in the company of his mom supported him in being more present and connected with his mom, an experience he felt grateful for. Simon then explained that after learning how to practice mindful listening and speaking and realizing the benefits, he then practiced mindful listening with his students on his practicum. Simon described the feeling of simply being present to clearly hear his students, and it was especially important when a student was upset. It wasn’t what he said in response that was helpful, Simon described that simply giving the student his compassionate attention was enough.

Teacher candidates’ practice of reflection-in-action also supported them in coping with challenging circumstances on practicum. In the quotation below, a teacher candidate shares his experience of practicum and how staying ‘present’ helped him cope with mounting stresses.

_During my first week in practicum, my associate teacher and I agreed I would teach certain periods. I was teaching first period on the third day and my AT didn't show up, he was late. There was no supply teacher. The teacher next door had a spare so she sat in and the principal came up and sat in too. So it’s my third day with my lesson, and I am like . . . shit, what I am going to do. It is that fear – I am screwed. The principal is watching you, you want to impress him, why does this happen to me. And then I am like – let’s try it out, let’s just do it, forget about it that he's here. I am not going to wish him away. These are the type of thoughts that are going through my head. Just go on – just do what you are going to do. That moment, when I was able to be aware of my thoughts and not let my mind wander to what I can't control. That's what I took away which was really valuable. Trying to be as mindful of your own thoughts wherever you are, whenever I can – especially when my mind starts wandering about negative emotions. I try my best and that is something I learned from the mindfulness class that I am taking away. (Alexandros – teacher candidate)_

The skills learned from reflection-on-action do not necessarily translate into skills for reflection-in-action. Reflection-in-practice refers to awareness and reflection in the moment of teaching,
comparison to reflection-on-practice which is commonly understood as thinking back about the lesson after it is has been completed. Providing authentic opportunities for teacher candidates to practice reflection-in-action only occur during practice teaching opportunities in teacher education, and those experiences are typically filled with high levels of stress and anxiety which makes bringing awareness in the moment of teaching very challenging.

6.5 Summary

Highlighting the value of mindfulness training in the development of reflective practitioners is potentially an important finding for teacher education. Whereas a pedagogy of reflection in teacher education remains ambiguous, the pairing of mindfulness practice and embodied reflection offer new strategies for promoting insight in reflection. Further, the context of MBWE provided a safe space for teacher candidates to explore the practice of reflection in their own personal lives, and begin to work through entrenched patterns of emotions, thoughts and behaviours that may no longer be serving them or their teaching practice. Developing reflective practitioners includes having teacher candidates develop a practice of reflection that is intrinsically meaningful so it becomes an ongoing professional practice and not simply an assignment that needs to be done in teacher education. Finally, reflection-in-action is a distinct competency that is not often cultivated in teacher education. Mindfulness practice develops present moment awareness, the necessary mode of being for reflecting-in-action. Practicing presence is a trainable skill that can be learned in the context of daily life when attending the academic portion of teacher education and then enacted in the classroom.
Chapter Seven

7 Constructivist Learning and Holistic Vision of Teaching

The last generation of teacher education has witnessed the rise of constructivism. This paradigm, constituting both a theory of knowledge and a theory of education has been influenced by figures such as Dewey, Piaget, Vygotsky and Friere. It describes knowledge as being actively constructed by the individual and his or her assimilation of new experiences with the past (Bransford, Brown & Cocking, 2004; Richardson, 2003). A constructivist approach shifts the focus of teaching from the teacher to the student. Whereas the teacher centered approach has traditionally favored the passive transmission of information within a lecture-style format, the constructivist model challenges teachers to find more innovative scenarios for the experience of learning. Four related examples of constructivist pedagogical practices are student-centred learning, experiential learning, self-directed learning and inquiry-based learning (O’Neil & McMahon, 2005). Student-centred learning is focused on the student's needs, abilities, interests, and learning styles with the teacher as a facilitator of learning. In self-directed learning experiences, students are more involved in guiding their own development – including both motivation and assessment. Experiential learning is based on students’ moving outside of the intellectual realm of learning into a more embodied experience of learning that typically happens outside of the classroom walls. Inquiry-based learning begins with teachers’ activating students’ curiosity, and continues to be directed from the students’ own interests and questions.

In describing their experience learning in MBWE, teacher candidates’ voices illustrated various codes related to student-centred learning, self-directed learning, experiential learning and inquiry based learning that contributed to the overall theme of constructivist learning. The first codes of this theme became evident in the first round of interviews after speaking with Joel, a teacher candidate who took the MBWE program in the Fall semester of 2009. Joel is a 26-year-old Caucasian male student who grew up in Germany. He came to Canada during high school and had completed a Master’s degree in History before enrolling in the Initial Teacher Education program. After my interview with Joel, I added a new question to my interview protocol about teacher candidates’ experience learning mindfulness, and learning in MBWE that was the springboard to better understanding this emerging theme. Below Table 6.1 outlines the codes
making up the theme, constructivist learning and holistic vision of teaching. This theme discusses two distinct yet related parts, teacher candidates’ experience of constructivist learning in MBWE, and their development of a holistic vision of teaching.

Table 6.1
Constructivist Learning and Holistic Vision of Teaching

<table>
<thead>
<tr>
<th>Codes</th>
<th>Description</th>
<th>Percentage of Teacher Candidates Contributing to Codes (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiential and Practical Learning Experience</td>
<td>Learning mindfulness is not an intellectual pursuit, but rather, it is learned through formal mindfulness practices, and the informal integration of mindfulness in teacher candidates’ daily lives.</td>
<td>38%</td>
</tr>
<tr>
<td>Non Striving - Letting Go of Perfectionism and Grades</td>
<td>Teacher candidates described the process of being more self-directing and self-reliant as key learning processes in MBWE.</td>
<td>23%</td>
</tr>
<tr>
<td>Learning to Fail</td>
<td>The process of learning mindfulness meditation inherently involves failure. Learning occurs when teacher candidates change their response to that experience of failure.</td>
<td>33%</td>
</tr>
<tr>
<td>Holistic Perspective of Learning and Teaching</td>
<td>Teacher candidates described a more holistic experience of learning and teaching</td>
<td>52%</td>
</tr>
</tbody>
</table>

7.1 Experiential and Practical Learning Experience

Learning mindfulness and cultivating wellness in life requires action. Learning mindfulness is not simply an intellectual exercise acquired through books; rather, mindfulness is a practice that needs to be enacted in real time. Formal mindfulness practices include: a body scan, which is
typically done lying down and learning to intentionally shift one’s attention throughout the body, *mindful sitting*, focusing on breath, body, and sounds, as well as, moving the body and breath in mindful yoga. Informal practices include mindful eating and mindful listening. Mindful eating is when people practice staying present in the process of eating in contrast to allowing their attention to drift off in thought or being distracted by television or by talking to someone. Mindful listening is the practice of bringing one’s full attention to listening to someone when speaking, and not getting lost in stream of thoughts in one’s own mind and rehearsing a response. The following quote illustrates the experiential nature of learning mindfulness expressed by a teacher candidate.

> With these mindfulness practices it is not a theoretical process of how you learn, it is the actual practice that you sit down and try it and you learn through that. It is through the actual practice, the physical process that you come to realizations. It is not a theoretical dependence, it is a realization from trying something yourself. (Joel – teacher candidate)

Because the nature of learning mindfulness is so experiential, teacher candidates found their learning to be very practical, because they could see the learning happening in their daily lives. This practical learning prepared them for the classroom, as they saw how the skills informed experience in daily life inside and outside of the classroom. A teacher candidate described their experience as follows. “Mindfulness training helped expose me to the hidden skills good teachers possess - like being connected to the class, listening and being present with the class.” By providing practical experiences, MBWE was seen to offer a unique curriculum, exposing teacher candidates to the difference between learning through telling or showing, and learning through doing.

### 7.2 Non Striving: Letting Go of Grades

There are numerous assignments in the MBWE program that I evaluate as the instructor. Students learn that the grading of these assignments is not based on facts they need to regurgitate, but rather on the students’ ability to grapple with personal and internal processes in their lives. In other words, I am explicit with the teacher candidates that they will need to find a
new means of finding motivation for the course. If they actively participate in the experiential learning process their assignments will be richer and more fulfilling.

Entering into the MBWE program is a unique learning experience, and Joel describes his experience of relating to the MBWE course syllabus.

*Generally you have a course syllabus and you have assignments, some sort of structure where you know you’ll have 20% for this 30% for that. So even though if the content is irrelevant or if you are not interested in the subject you still know that if you finish this assignment and that assignment then I'll pass and that's all I need. It wasn't as structural with this course. There is no wrong answer. I am going to fill in a mindfulness workbook or write about my teaching practicum, I am telling a story – I am thinking about how I can relate to things and how these things relate to me and my own stress and things like that. So the focus was less on the marks because you can't mess it up. Initially it was stressful because you are trying to come up with a structure for yourself on how to put these things down and how to achieve a good grade because that's ultimately the ambition in education and then to realize that it really doesn’t matter because it is an experience and whatever I put down is what I lived through and what I experienced . . . . The marks really don’t matter it is the benefit that counts.*

Many teacher candidates’ spoke about MBWE being truly unique within their initial teacher education program because the skills learned were about non-striving and letting go of perfectionism. For example, Tara, a teacher candidates said, “non-striving was a difficult concept to tackle initially. We are so conditioned to set goals and find ways to reach a certain potential in our lives, but early on in this course I learned that striving and forcing provokes unawareness.”

One unique element identified by teacher candidates was the need to refocus their motivation from an extrinsic focus on grades to more of an intrinsic focus on non-striving. Within the tradition of mindfulness, non-striving represents a kind of alternative to our goal-oriented culture. According to Kabat-Zinn (1994) the constant pursuit of goals removes us from the present moment. Instead of paying attention to what is occurring within practice, we become consumed with the question of whether we have reached a particular goal. By contrast, the practice of mindfulness requires an embodiment of presence, which is distinguished from getting
the practice right, or reaching some predetermined end goal. Shifting one’s relationship to grades and moving toward a more non-striving approach is important learning for teacher candidates who are soon to be teachers shaping their own students approach to learning.

Related to letting go of grades and non-striving is the relationship between learning mindfulness and perfectionism. Many of us are succumb to the “A” type personality of needing to be perfect in our work and life. We don’t leave much room within ourselves for error or imperfection. Particularly in the field of teacher education, there seems to be a dominant identification with the fixation on perfectionism – a fixation for which there has been a notably high incidence of the stress response. If we are constantly aspiring to perfection then we tend to fall to pieces when small details go astray; if things don’t go just exactly as planned, we tend to react with anger and/or frustration. Learning to let go of perfectionism is experienced by teacher candidates on practicum when after spending hours creating lesson plans they are able to adapt to the way learning is actually unfolding in the class, instead of needing to control the process and come back to the script.

7.3 Learning to Fail

In going through the MBWE program, many teacher candidates spoke about their experience grappling with the formal mindfulness practice. Indeed, learning to practice mindfulness is not easy. Especially for new practitioners, the task of “quieting the mind” – which is central to mindfulness training – represents a new and uncomfortable set of problems. Chief amongst these is the demand for a renewed relationship to failure.

In typical learning situations, the experience of failure falls under the category of “final results”. Like the concept of perfection, failure is inherently conceived of as outside of practice. Within the MBWE program, teacher candidates were taught to become mindful of their experience of failure as it occurred specifically within practice. For example, one of the common misperceptions about mindfulness practice is that the practitioner is trying to “blank” one’s mind. As a result, when thoughts enter the mind, or one gets lost in one’s preoccupations, the new practitioner will often see themselves as having failed. In mindfulness practice however, one comes to accept that the mind will continually wander away from the chosen point of focus. The challenge is to realize that the mind has wandered, and to bring it back to the chosen focus.
without condemning oneself for not have achieved unwavering attention. In other words, it is the process of ‘failing’ that enables learning, a circular pattern that happens over and over again in mindfulness practice.

In MBWE, what is important is how teacher candidates relate to their failures. Embodying the attitude of acceptance, patience and non judgment towards themselves strengthens their ability to stay present in the classroom. This was a theme that was discussed by various teacher educators. Here Kaleb describes his experience grappling with the formal mindfulness practice, and its relevance to teaching.

Even in the process of learning and failing, if you try it and you can't do it. As a teacher, that in itself is a benefit because you realize for example if I am a math student I can try this as much as you want and you are never going to get it – that was the case for me anyways. That realization that some people will try something, and I have tried to sit there for half hour and try to focus on my breathing and I couldn't do it. And so you walk into a classroom and you realize there might be 3,4 students who go through the exact same experience. As teachers it is easy to get on your high horse and think I am been through university and I learned this and that and I can teach you and you can learn it, everyone can learn stuff. So this can be a humbling experience, in the sense I've tried this and I've failed, I couldn't do it. Even if that's the only thing a teacher takes away and that's a good thing for a teacher because it makes a humble teaching . . . . Even if you fail you are rewarded in a sense. I think our western education doesn't reward failure in any shape or form whereas here for yourself you can take something away because you tried it and you failed and you realize other people will go through the same and that's a positive.

Next, Rosa describes her experience learning, and grappling with mindfulness practice.

Attempting and sometimes feeling like I failed at mindfulness practice, gave me insight to a different perspective on learning, and the experiences of feeling inadequate when immediate understanding does not always occur. I feel like this experience helped me to better understand students who might not ‘get it’ the first
time around, and the importance of being patient with them and the pace at which they are learning.

The process of failing and learning is a humbling process as described by Kaleb, and provides insight into the process of learning as explained by Rosa. Failure is a central experience within practice and learning. We often fail, many times, especially when undertaking the practice of learning something new. From a constructivist perspective, failure is the doorway to learning because it moves us back to a place to which we know, and then build from there. Providing teacher candidates with the experience of failure and learning to relate constructively to this experience plays a formative role in teacher candidates’ vision of teaching. For example, bringing acceptance and learning from one’s failure cultivates a more compassionate response in teachers’ relationship with students, as mentioned by Kaleb in the quote above.

Learning to fail also develops the competencies of being a lifelong learner. Being a lifelong learner is vital to the sustainability of effective teaching; staying up to date with new learning in the field, and continually growing and learning as a person. Zeichner (2009) describes the link in teacher education between self directed learning and lifelong learning.

There is a commitment by teacher educators and other practitioner educators to help prospective and novice practitioners internalize, during their initial training and early years of practice, the disposition and skill to study their work and become better at it over time. There is commitment to help practitioners take responsibility for their own professional development. (p. 73)

The process of learning in MBWE develops the skills of being a lifelong learner. For example, bringing mindfulness to a challenging situation supports greater perspective and helps to see the situation as a learning opportunity. In the following quotation, Teresa describes her understanding of mindful learning.

As a student in MBWE, having never meditated nor done much yoga in the past, the subject matter in this course was almost entirely new to me. Through the experience of learning something entirely new, I gained great insight regarding the actual process of learning. Most importantly, I feel that the practice of having an open heart, being non-judgmental and a beginner’s mind is crucial for
learning. In learning anything new, not just mindfulness practice, keeping an open mind helps to better internalize and engage in the material, while being non-judgmental about the self-learning process and the subject matter, makes for fewer obstacles towards the goal of new knowledge and skill acquisition.

Knowing this, I hope to teach these ideas to my future students, so that they may be more open to the process of learning science and biology.

Mindfulness practice is a pedagogical strategy that when used in teacher education creates a genuine opportunity for teacher candidates to grapple with learning a new skill that on the outset seem simple, and yet is not easy. Teacher candidates also gained insight into the emotional dimension of failure, and learning how to navigate challenging emotions and related thoughts. Developing a more direct relationship with the emotional landscape of failure enabled teacher candidates to stay present in their experience, resilient in their process of learning, and develop a more empathetic response to their students’ learning process. Learning to fail is an important experience for teacher candidates when learning to teach.

7.4 Holistic Perspectives of Learning and Teaching

MBWE was described as being more student-centred, in that they felt the curriculum of the course was directed towards them – both in content and pedagogy. The following quote comes from a teacher candidate talking about their experience being in a more holistic classroom, and then continues to explain how that shapes a more holistic vision of teaching.

Rather than more of the same, MBWE was sort of different, a break from the style of learning I have been accustomed to receiving. It was a different way to learn, and because of that, it provided a different way of viewing my whole ITE experience - in a positive way. It reminded me that absorbing content isn't the only way to learn . . . I went to the course to learn something, but the course was here for me to learn something. Sort of a switch in roles, where I am the target of the course . . . In regards to teaching, my mindfulness training helped expose me to the hidden skills in teachers who are naturally good at teaching. Things like being connected to the class, listening for class response and being present with the class. In terms of curriculum and learning, I think mindfulness helped me be
more in tune with a wider range of learning styles and a wider conception of what learning is, because there are a lot of unexamined assumptions about learning being mastery of academic content and recitation of material. But I have been coming to understand especially through mindfulness that learning can encompass a lot of things, and not just how well they can memorize a textbook. But maybe how well they can socialize and learn as a group, or debate or discuss society and technology issues. I think learning can also be more personal too. Learning as people, personal background and culture. As far as curriculum, I think it can work with existing standards but it opens it up a lot more. (Leo – teacher candidate)

MBWE followed an inquiry-based approach in that students were continuing to explore and practice mindful wellness within their own lives, and through their own interests. The first assignment in MBWE is for teacher candidates to write an intention for the course. Teacher candidates’ articulate their interests and motivations for the class in the assignment, and then were supported to further focus on a specific area that they identified as a presentation topic in the class. In the following quote, Melissa, a teacher candidate, gives a metaphor describing for her shifting perspective of learning when going through MBWE.

Before learning was like running down a hall, and there are all these doors but you didn't have time to open them, you just had to get to the end of the hall – that was it, you had to get to the end of the hall. Now, the way I look at it, it's ok to slow down and open some of those doors, you'll get to the end of the hall at some point or maybe you won't, maybe you'll go back the other way. Maybe you'll go into one room and stay there a long time and that's ok too. (Tania – teacher candidate)

Having been given the opportunity to direct her own learning, Tania explains how a more intrinsic motivation developed within her process of learning. This is significant as it shifts the onus of responsibility from the teacher to the learner – a shift that is generally acknowledged within theory, but neglected within practice. In the MBWE program, teacher candidates were given a more first hand experience of student-centered learning.
Gordon (2009) reminds us that constructivist teaching is not simply letting the students teach themselves, while the teacher sits back. To teach in a constructivist way may actually require a higher greater degree of content knowledge and pedagogical mastery because of teachers’ need to be able to respond and frame learning in multiple ways for students who are approaching the material from multiple perspectives.

The process learning in MBWE expands and reinforces a holistic vision of learning, teaching and education – a perspective that expands from a narrow focus on the formal curriculum to include a broader vision of education for well-being. In the following quotation, Mira, a teacher candidate describes their broader vision when being in the classroom.

*Working with the students while taking the MBWE course made me more acutely aware of their well-being. While at practicum, instead of focusing only on myself and worrying about what I had prepared for the lesson ahead, I noticed that I was keenly interested in what the students were bringing emotionally into the class with them.*

The wellness wheel is used as a model in MBWE to illustrate a holistic approach to classroom planning, to explore cross-curricular connections, to balance the formal curriculum with wellness components (what I refer to as the inner and outer curriculum and will be outlined in greater depth in the chapter on pedagogy of well-being). These pedagogical strategies complement the ongoing discussion on the expanding aims in education such as social and emotional learning, environmental education, and healthy schools.

Teacher education is a critically important opportunity for teacher candidates to experience constructivist learning, since it will later inform their own approach when entering a classroom (Richardson, 1997, 2003; Harrington & Enochs, 2009). Richardson (2003), for example outlines characteristics of constructivist pedagogy such as: (a) “attention to the individual and respect for student’s background . . .”, (b) “facilitation of group dialogue . . . toward shared understanding of a topic” and (c) “opportunities for students to determine, challenge, change or add to existing beliefs and understandings . . .” (p.1626). This constructivist model challenges the pre-established norms that many teacher candidates have experienced first hand throughout their own educational experience. MBWE provides authentic learning experience for teacher candidates, which is a first hand perspective as to the benefits of
constructivist approach to teaching and learning. For example, one teacher candidate described her experience this way.

*I have learned about self-directed learning in other courses. They have told me the definition and given a few examples, but when they are shoving definitions down your throat, you don't really pay attention to it. But when you are exposed to it yourself, as the student, you realize this is something that can be really useful in teaching.* (Chandra – teacher candidate)

In addition to teacher candidates gaining a new experience of learning, MBWE also provided an experience of a calm classroom where learning was not as stressful, which contributed to a new way education can be experienced.

Stress is included as part of many teacher candidates apprenticeship of observation. Schooling is typically known as being stressful - having a large amount of material to get through as well as many deadlines for assignments. Especially in today’s educational climate of standardized testing, teachers are commonly feeling pressured to get through the curriculum and then have students perform in a test to demonstrate knowledge. Past experiences in the classroom inform our view of what is “normal” in the classroom. However, there are different ways of being in a classroom that include a more holistic approach to teaching and learning, where there is a reduced level of stress and the classroom culture is calm and nurturing. Providing teacher candidates with an alternative experience of education is key to dismantling the apprenticeship experienced in their primary, secondary and higher education years, and also equipping them with a calmer and more holistic approach to teaching and learning.

7.5 Summary

A constructivist theory of learning is developed through a synthesis of knowledge and experience, both from the past and from present experience. This dominant view of learning is shared by many in teacher education, and in the process of translation from a theory of learning into a theory of constructivist teaching. Constructivist teaching adapts to the learning needs and perspectives of the student. One important element in preparing teacher candidates’ to be constructivist teachers is to give them the experience of constructivist learning. Although
constructivist learning is a dominant theory of learning promoted in teacher education, less common are opportunities for teacher candidates to benefit from a genuine experience of constructivist learning. MBWE provided teacher candidates the experience of being in a class that was more student-centred and experiential, and that required them to direct their own learning while being supported by the instructor. Through this experience, teacher candidates describe how their experience in MBWE informed a more holistic vision of teaching.
Chapter Eight

8 Social and Emotional Competence and Well-Being on Practicum

Over the past decade, as social and emotional learning initiatives have continued to grow, evidence gathered demonstrates the importance in healthy child and adolescent development (Greenberg et al., 2003; Zins et al., 2004; CASEL, 2008). Such educational initiatives have recently been broadened by Jennings and Greenberg (2009) who have reconceived of social and emotional competence (SEC) within the sphere of teacher development. Accordingly, teacher SEC is characterized using the existing framework of social and emotional learning – including five central competencies: self-awareness, social awareness, responsible decision-making, self-management, and relationship management (Jennings & Greenberg, 2009; Zins et al., 2004). Jennings and Greenberg’s (2009) model of “the pro-social classroom” explains the effects of teacher SEC in connection to improving the teacher-student relationship and classroom management and enabling social and emotional learning for students. Jennings and Greenberg (2009) also suggest that mindfulness-based training cultivates teacher SEC and well-being.

Emotions play an influential part of human experience, influencing thoughts, behaviour and perspectives in daily life. In their influential book, Understanding Emotions, Oatley, Keltner and Jenkins (2006) posit that “…emotions structure perception, direct attention, give preferential access to certain memories and bias judgment” (p. 260). Emotional intelligence - which was first popularized by Salovey and Mayer, (1990) as well as Daniel Goleman (1996) - refers to one’s ability to bring awareness to, and regulate emotions as they arise. Understanding emotions and regulation of emotions has become a focal point within the emerging field of affective neuroscience (Davidson, 2000), as well as professional development (Cherniss & Goleman, 2001), leadership (Goleman, 1998), and learning (Greenberg et al., 2003; Zins et al., 2004).

Emotions have also been recognized as playing a fundamental role within educational reform (Hargreaves, 1998; Leithwood and Beatty, 2008). Positive emotions have been seen to encourage enthusiasm and attentiveness within the classroom, whereas negative emotions often separate teachers from their students, creating a difficult teaching environment. Emotions also play a central role in teacher stress and burnout (Hong, 2010; Rupp, 2005) and yet few teacher
education programs prepare teacher candidates for dealing with challenging emotions. Is teacher education sending teachers into the field ill prepared to cope with the stresses of the profession, and how does that impact students? Preparing teacher candidates for the real world of teaching is an ethical question. Teacher candidates, who are prone to experiencing elevated symptoms of stress, depressive episodes, anxiety etc, present a potential barrier to effective teaching and learning. This is not to say teachers who struggle with anxiety or depression cannot or should not be teachers, but rather skills for coping with stress and developing well-being need to be part of the tool box teacher candidates are receiving as part of teacher education.

From a mindfulness perspective, all emotions can be viewed as providing valuable information. This is in contrast to a dualistic framework of emotions that labels emotions as either positive or negative. Without emotional intelligence, emotions (both “positive” and “negative”) can become unhelpful and destructive. For example, “negative” emotions such as fear and anger, can be useful to initiate action; however there is a point that they are no longer helpful. This is also the case with stress – whereby an optimal amount of stress (called U-stress) motivates us towards constructive action, while levels of stress that overwhelm us (distress) become harmful. Teacher candidates need to be equipped with the skills necessary to skillfully use preliminary exposure to stressors and coping mechanisms to respond to distress. The following quotation from Hong (2010) articulates the gap between initial teacher education and the emotional realities of teaching.

*This lack of systematic efforts to provide pre-service teachers with a realistic understanding of teachers’ emotional experiences and developmental stages raises one of the most important issues in teacher education programs. Bridging the gap between theory and practice is critical in this situation, because the gap between the educational theories pre-service teachers learn in college and the demanding reality in-service teachers learn in the classroom and in the broader school context can make them feel lost.* (p. 1540)

Hong (2010) argues that emotional intelligence is one key aspect of teacher identity that contributes to the long-term sustainability of teachers.

The theme, MBWE supports teacher candidates’ social and emotional competence and well-being on practicum, comprised four codes outlined in Table 7.1 that emerged in the
interviews with teacher candidates. Practicum in this study is a four-week opportunity for teacher candidates to be part of a classroom and practice implementing skills and theory they have been learning in teacher education. This theme is important because it directly connects the skills learned in MBWE to teacher candidate’s experience of being in the classroom.

Table 7.1.
Social and Emotional Competence and Well-Being on Practicum

<table>
<thead>
<tr>
<th>Codes</th>
<th>Description</th>
<th>Percentage of Teacher Candidates Contributing to Codes (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress Reduction</td>
<td>Practicing mindful awareness during practicum helped reduce teacher candidates’ stress response and focus on the task at hand.</td>
<td>52%</td>
</tr>
<tr>
<td>Beginner’s Mind in the Classroom</td>
<td>Teacher candidates bringing a beginner’s mind to class helped in seeing students with fresh eyes instead of labeling and judging students based on past experiences.</td>
<td>38%</td>
</tr>
<tr>
<td>Listening to Students</td>
<td>Practicing a pause when listening to students enabled teacher candidates to hear their students, which supported teachable moments and connections with students.</td>
<td>43%</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>Teacher candidates articulated the benefits of practicing mindful teaching and teaching mindfulness as a pro-active approach to creating a calmer classroom.</td>
<td>48%</td>
</tr>
</tbody>
</table>
8.1 Stress Reduction

The first code in this theme highlights the experience of teacher candidates in using new skills and knowledge from MBWE to reduce stress throughout their practicum. Many teacher candidates discussed using breathing exercises and focusing on the present to calm themselves down during this stressful time. The following quotation from Nicky, a teacher candidate, demonstrates the use of breathing techniques to help in her stress reduction.

*Coming into my first placement I was very concerned because I was having my feelings of anxiousness coming back and I wanted to be able to focus on the teaching. Rather than working myself up and then trying to teach, I would always remember to take those few minutes before class to do some breathing - because it does really work miracles. When I was thinking about what was upsetting me, I wasn't just thinking about it and letting it get out of control. I was really thinking of it as being aware of it. Not necessarily trying to stop it, but being aware of it and rationalizing my worry in the sense that – yes, it is normal to be worried about this and let's move on from it. Where as in the past, prior to this class, I was always trying to fix it. So, this is why I am worried, what can I do to stop myself from worrying about this. When I had the tools to approach those thoughts in a more rational sense as in – accepting them – that was something that really really changed my perception. I was able to let go of that and come into the classroom as myself rather than as an anxious person.*

Ryan, another teacher candidate, used presence to diminish anxiety and frustration and to introduce an element of calm into the otherwise hectic nature of the practicum.

*The hardest part was during practicum. When trying to create lesson plans and staying up really late, and taking a long time and find the materials and write it up and set it up ahead of time. I found that especially there sometimes during the school days that can be really really tough. If the lesson isn't going the way you planned it. Again, I started to feel my hackles rising a bit, some panic. Just having the mindfulness there, in the back of my head has helped me to not blow up in front of the kids, to stay within myself and not freak out because it is so easy to get swept up in it all. As a teacher there is so much going on. You have duty in the*
mornin' you have to come in early and get your photocopying done, sometimes the photocopier is broken or people are using it and you have to wait but your class is waiting. You have to be in 3 places at once and you somehow have to juggle it all and still stay sane and I just find that being able to calm down and not worry too much about what is happening 5 minutes from now, and focusing on this present moment helps a lot.

Many teacher candidates spoke about their new-found ability to do breathing practices both prior and during class time. These practices allowed them to centre themselves and manage challenging emotions or thoughts that were arising. Dropping back into the present was an opportunity for teacher candidates to re-center their attention during a very busy time, and to focus on elements that were within their sphere of control.

Providing tools that support teacher candidates while on practicum to cope with the stressful demands of teaching enables more successful teaching experiences. Practicum is a formative learning experience for teacher candidates; preliminary practice teaching opportunities build confidence and a sense of teacher identity. Supporting teacher candidates with coping strategies to mitigate stress promotes positive teaching experiences that help to form a trajectory for effective teaching. Taking a moment not only benefitted the teachers, but also their overall approach to teaching within a classroom, as discussed in the next code.

8.2 Beginner's Mind in the Classroom

Beginner’s mind is a principle discussed in MBWE referring to a perspective that allows us to see each moment as unique. In contrast to getting stuck in our typical perceptions and existing constructs and labels, beginner’s mind invites us to see each moment unfolding with fresh eyes (Kabat-Zinn, 1990). Fresh eyes in a classroom are more open to seeing without existing judgment. Shunryu Suzuki (2003), in his book Zen Mind, Beginner’s Mind, says, “In the beginner’s mind there are many possibilities, but in the expert’s there are few (p. 21).” A teacher’s practice of beginner’s mind is creative to multiple approaches for teaching and learning. Teacher candidates discuss the benefits of integrating this principle into their teaching practice in practicum.
Daily I try to keep in mind two of the foundations of mindfulness practice, beginner’s mind and letting go. I keep reminding myself that “no moment is the same as any other.” As a teacher it is important for me to start every day with “fresh eyes” rather than seeing the reflection of my own thoughts about the students and my co-workers. By neglecting preconceived notions, I am giving every student the chance to grow. (Nicky – teacher candidate)

I also learned to use the beginner’s mind to separate myself from any preconceived notions which I may have held about my students. This allowed me to visit them each day with a fresh mind looking for new beginnings. (Lily – teacher candidate)

As these quotes illustrate, beginner’s mind is a principle that brought teacher candidates ‘back into the present’ in the classroom, and opened up new spaces for heightening classroom awareness and developing connections with students.

Returning to a beginner’s mind is related to the practice of reflection-in-action, a process that heightens self-awareness and typically leads to a more thoughtful action. The following quote from Kaleb, a teacher candidate, describes this process.

The situation never went away that was making me stressed out. I still had to come back to it – I can't leave it. If I am stressed out about an assignment or a student, or something in the school, it is not going to go away just because I walk away and calm down. I still have come back, but coming back calmer makes it much easier to deal with because I can look at the bigger picture.

Mindfulness does not solve or fix problem per say, however mindfulness does facilitate spaciousness in mind in order to choose an appropriate response to whatever comes ones way. Returning to a beginner’s mind invites a new perspective to a stressful situation, and is also facilitates more connection in the classroom. The next code presents teacher candidates’ experiences listening to students and enhancing the teacher – student relationship as a result of their practice of mindfulness.
8.3 Listening to Students

Being able to listen intently is challenging. Unless one pays attention to the practice of listening, one does not truly realize how often one fails to do so. For example, when in conversation, the person listening is often thinking about a response to the speaker, and preparing to respond. Activity in the mind of the listener diminishes their capacity for fully listening because cognitive faculties are being used in other ways. Learning to keep one’s mind in the present, and not go off into the content of one’s own thoughts is a practice of mindful listening. Mindfulness meditation has traditionally been taught as a solitary practice of cultivating present moment awareness. However, as discussed in chapter two, relational mindfulness practices have become a focal point in recent years, specifically within the realm of professional development for human services (Carlson and Shapiro, 2009; Kramer, 2007). MBWE focuses on relational practices with teacher candidates in order to build skills for developing positive relationships in all aspects of the teaching profession – including teacher-student, teacher candidate – associate teacher, and teacher – parent relationships. Mindful listening and speaking are both informal mindfulness exercises that teacher candidates are asked to practice throughout MBWE. Relational skills practiced and developed in MBWE can also be easily transferred into the context of practicum.

In the following quotes, teacher candidates talk about the value of listening to their students within a practicum scenario.

*I would understand the students’ questions better. Some days when you are rushing and when they ask questions, you think of not what they are asking, not what they meant but you think of something else. I make assumptions, because I was in chaotic moments and I didn't listen well, and I just assumed what they were going to say next.* (Thanh – teacher candidate)

*When I was working with a student I was able to focus the student needs, and even think a little bit further to where they are going to be. Instead of quick response and sending them on their way. You slow down your thought process so you slow things down and talk to that person, that student. This was one of the biggest benefits from taking the course - slowing down. My mind flows pretty quickly so being able to stop and focus with that student really helped me be a better teacher.* (Donny – teacher candidate)
Becoming present in order to listen to students demonstrates social intelligence and effective teaching. Often, when the classroom or life gets busy, our ability to slow down and listen diminishes because our minds are moving so quickly. Teachers are continually moving quickly throughout the day and in the classroom. Teacher candidates in this study articulated their ability to call on their practice of mindfulness during practicum and felt as though they were able to feel more present to students, which improved their teaching and also nurtured better connections in the classroom.

Developing the skills to be able to slow down and connect with students becomes crucial for student engagement, learning and for healthy development. Research in the field of attachment theory, has documented the importance of developing healthy connections early in life to increase the likelihood for healthy social and emotional competencies later in life (Siegel, 1999; Bowlby, 1988). The process of connecting is known as attunement or developing a sense of secure attachment – whether it be to a parent or to any other caregiver. More recent research has begun to connect theories of adult attachment theory to the teacher-student relationship; teachers’ most dominant attachment styles will dictate their pattern of behaviour and connections in the classroom (Riley, 2011). The four adult attachments styles are secure, preoccupied, dismissing and fearful. A key learning in developing healthy teacher-student relationships from the teacher’s perspective is becoming more aware of one’s own attachment style, and if necessary working to develop a more secure form of attachment.

Daniel Siegel (2007) hypothesizes that formal mindfulness practice applies the same social circuitry that is used during attunement with others to connect with oneself. More specifically, he claims that the practice of mindfulness internalizes the process of attunement, allowing the practitioner to create a secure attachment with oneself. This process he calls intrapersonal attunement, which is a form of be-friending oneself. The ability to attune with oneself is a building block for being able to attune with others. This, in basic terms, is how the cultivation of the mindfulness is seen as training for teacher candidates to be able to cultivate meaningful and secure connections in the classroom.

More attention is needed in teacher education toward developing the skills and competencies needed for creating secure attachments in the classroom. There is an underlying belief that people who want to become teachers are already “good with children and
adolescents.” While it is true that, teacher candidates may enter the field with an interest and even potential aptitude for helping children, that does not mean that they are necessarily competent in relational skills such as developing a secure attachment.

8.4 Classroom Management

Classroom management is a broad term that relates to the teacher’s ability to promote and maintain a certain climate within the classroom setting. It depends largely upon the teacher’s ability to respond appropriately to behavioural issues as they rise, and to govern the overall organization and discipline of the group. Teacher emotions are a central contributing factor to classroom management. Nadia, a teacher candidate articulates this point clearly in discussing the notion of transference in teaching, and the role of the teacher in creating a positive classroom climate.

*My attitude and mind set can be picked up by the students and when I present myself as a balanced and mindful teacher, the students will respond in a calmer manner. The basics of this course can be used to approach classroom management from an entirely different perspective.*

Through their MBWE training, teacher candidates learned to self-regulate their emotions using various mindfulness practices. Many teacher candidates shared their experiences using mindfulness as a self-regulatory tool in the classroom.

*Mindfulness changed my approach to teaching and classroom management. Before if a student said something to me I would react to it, whereas now if a student says something to me, I definitely pause first. Let myself calm down a bit, think about what to say and then deal with it, and I rarely had any classroom management problems. (Chandra – teacher candidate)*

*When I would start teaching, and the behaviour in the class was difficult, that is when I would use a lot of the pause. Instead of just waiting and getting really tense, and then angry and then blowing up. I could feel myself getting anxious or getting red or hot and just feel that process. Just stop, just wait until I was ready.*
I think the students really respected that too because then they could see what they were doing themselves, and I think it caused them to pause in an aspect themselves. It stopped that from escalating. (Florence – teacher candidate)

Florence illustrates the value of using mindfulness in reducing reactivity to challenging behaviors in class. Rather than submitting to her anger and anxiety, she was able to take notice of the situation, and regain control by means of what she calls a “pause”. The following quotation from Audrey, a teacher candidate, extends this proactive approach to classroom management.

In one of my classes, I had a particularly difficult student who every time he raised his hand had something bad to say about my lesson or me. Even so, each time he raised his hand I had hope that he would answer one of my questions, or ask something that was relevant to my lesson, but he never did. A week into practicum, I noticed that every time his hand would go up my whole body would tense up and I would get really nervous. This is when I brought mindful breathing into the classroom. Before I called his name, I would take a deep breath and could automatically feel the tension release through my shoulders and down my spine as the oxygen circulated through my body. Taking time to breath and relax helped me be better prepared to handle this student without overreacting and in turn helped me to be a better educator.

Practicum can be an especially difficult time for teacher candidates. They are placed into someone else’s classroom without the benefit of having already cultivated relationships with the various students. In most cases, they are challenged to adopt the style of classroom management already in place in a particular classroom. By developing teacher candidates’ social and emotional competence, MBWE was seen to improve teachers’ abilities to respond to this challenge, and to cultivate a calm and healthy classroom climate.

Mindfulness practice can also be used as a pedagogical tool for calming students within the classroom setting. As part of their MBWE training, teacher candidates were encouraged to try implementing a brief mindfulness practice with students as a way of focusing, calming the classroom, and reducing stress. Amongst those who did attempt to incorporate a mindfulness practice with students, most found that the students responded positively to the exercise,
especially when the exercise was repeated and became a part of the regular activities. One teacher candidate shares her experience teaching mindfulness during her practicum:

*I used it in my classroom - just in small ways. We would always take a stretch breathing at the beginning and it really worked to help them focus. Then they were quiet and I didn't have to yell or spend 10 minutes trying to calm them down. (Tania – teacher candidate)*

*Another situation I can see mindful stretching being useful is during a lesson where the students are not paying attention because they are off task (i.e., Chatting, doodling etc.) or when they zone out because of fatigue or boredom. Engaging the class in a mindful stretch could help them re-gain focus by either re-directing their energy toward the lesson or reinvigorating themselves. In either situation it also lets your students know that you are aware of their feelings and behaviours and that I as the teacher am willing and flexible to acknowledge and do something about it. (Isabella – teacher candidate)*

Including mindfulness-based practices in the classroom with students is an emerging area of research because of the potential for calming students, as well as for regulating attention and emotion. I discuss this dimension more fully in the following chapter under the section “Teaching Mindfulness”. Using mindfulness as a pedagogical approach with the students complements teachers regulating their own emotions and embodying mindfulness, that in turn make up a more comprehensive approach to classroom management.

### 8.5 Summary

Teacher Social and emotional competence and well-being is a relatively new construct within teacher education however, its value has long been implicitly understood in relation to teacher-student relationship and classroom management. Teacher candidates shared that MBWE cultivated skills and competencies that could be accessed within the classroom during their practicum. Teacher candidates reported that taking time to slow down and practice mindful teaching contributed to positive interactions with their students, which in turn diminished classroom management issues and enhanced their overall teaching experience. Infusing
mindfulness-based practices in teacher education provides teacher candidates the opportunity to focus on the developing the daily competencies required to be successful in the classroom.
Chapter Nine

9 Teacher Candidate Engagement in Teacher Education

One of the unexpected themes that emerged from my research was the impact that the MBWE program had on teacher candidates’ experience in Initial Teacher Education. Using a grounded theory approach, I became curious to hear more about teacher candidates overall experience within a professional preparation program. As documented in the codes outlined in Table 5, there was strong evidence that the MBWE program directly improved the teacher candidates’ engagement in their program of study.

Within the literature, student engagement is broadly distinguished into three categories: behavioral, emotional, and cognitive (Klein & Connell, 2004; Reeve, Jang, Carrell, Jeon and Barch, 2004; Finn, 1993; Marks, 2000). Klein and Connell (2004) explain each of these components.

Behavioural engagement includes time students spent on their work, intensity of concentration and effort, tendency to stay on task and propensity to initiate action when given the opportunity. Emotional components of engagement include heightened levels of positive emotion during the completion of an activity, demonstrated by enthusiasm, optimism, curiosity and interest. Cognitive components of engagement include students’ understanding of why they are doing what they’re doing and its importance. (p. 262)

Kuh and colleagues (2007) assert that these various dimensions of engagement are inextricably linked to certain structural or institutional factors that dictate schedules, curriculum, opportunity for collaboration with peers, resources, and the overall support that is offered within the student experience. It is significant that these factors are seen not only to affect the students’ involvement in the course – i.e., the nuts and bolts of their being in the classroom – but more importantly, their active engagement with course content and materials both inside and out of class. This emergent theme begins to articulate the wider value of mindfulness training within
initial teacher education. The following discussion introduces the four codes that contributed in making up the theme.

Table 8.1
Teacher Candidate Engagement in Initial Teacher Education

<table>
<thead>
<tr>
<th>Codes</th>
<th>Description</th>
<th>Percentage of Teacher Candidates Contributing to Codes (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing Presenteeism</td>
<td>Teacher candidates articulated the stress reducing value of participating in MBWE.</td>
<td>66%</td>
</tr>
<tr>
<td>Decreased Rumination</td>
<td>Teacher candidates described learning how to let go from repetitive thought patterns and concerns (for example dissatisfaction with ITE) by practicing mindfulness.</td>
<td>66%</td>
</tr>
<tr>
<td>Improved interpersonal relations</td>
<td>The practice of relational mindfulness learned in MBWE supported the participatory requirements emphasized in teacher education.</td>
<td>35%</td>
</tr>
<tr>
<td>Positive Student Experience</td>
<td>MBWE was experienced as a novel course that complemented other aspects of teacher preparation. Teacher candidates transferred valued skills learned in MBWE into other teacher education courses.</td>
<td>57%</td>
</tr>
</tbody>
</table>
9.1 Reducing Presenteeism

A current identified problem in workplace performance is known as presenteeism. Presenteeism is when employees come to work not mentally present due to an illness, extreme family/life pressures or stress, which leads to reduced levels of focused work and productivity. Employees come to work because the problem they are dealing with often does not justify missing a workday. This code is highlighting the value of MBWE in providing teacher candidates with coping mechanisms to reduce their levels of presenteeism.

The stress response contributes to presenteeism. The stress response is a non-specific physiological response triggered in mind-body. A non-specific response means that many different stressors (e.g., family illness, transition in relationships, school assignments, thinking about finances) can trigger the response. Once triggered, we experience physiological and mental changes such as increased heart rate, rising body temperatures, tension in the muscles, trouble concentrating, and forgetfulness. Negative stress can play a debilitating role in our day-day-to-day functioning by influencing fearful thoughts and getting us caught up in unhelpful emotional reactivity. Cultivating mindfulness brings greater awareness to the present moment, providing a broader perspective to our stressors so that we may not trigger the stress response, or learn to shut it down and return the body-mind to homeostasis (Kabat-Zinn, 1990). Teacher candidates’ discussed the value of MBWE in managing the stress of an intensive nine month professional preparation program, which included coming back to school after being in the workforce for numerous years, and coping with existing mental and physical ailments such as anxiety and depression. For example, one of the teacher candidates had breast cancer in the year prior to being in the program and described her experience.

*I think that if I hadn't taken this elective my experience at OISE would have been completely different. I don't know if I would have been able to complete the initial teacher education program successfully, I think I would have struggled a lot more to get through it because of the physical pain I was having and I think also my practicum experiences would have been different. (Mira – teacher candidate)*
Teresa is a 25 year-old teacher candidate, who identifies herself as a West Indian with British ethnicity and has a background in marketing. During her interview, Teresa talked about how she shared her learning and practices from MBWE with her family at home, and then six months after the completion of the interview, Teresa contacted me to gain some further resources on mindfulness in order to support a family member. Teresa shares her experience of how the MBWE program supported her as a person and in reducing her stress.

*Without having the mindfulness, it would have been the same problems as before, lots going on, lots of stress – problems sleeping not really knowing how to handle it. I am hardly saying I am expert on handling all my stress now – hardly not, but I take things a little bit easier now than I would have.*

In an interview with Nicky, she told me that one of the biggest areas of growth for her this year was going off medication for anxiety. She had been working with a counselor prior to taking MBWE so she did already have some coping mechanisms; however, she described the application of mindfulness into her life as the key factor in moving her beyond the reliance on medication.

Reducing stress enables teacher candidates to cognitively and emotionally invest in teacher education because heightened levels of distress lead to a number of physical and mental barriers. The value of mindfulness-based training for reducing stress and burnout in teachers is often identified as a benefit, whereas this code is highlighting the value of reducing teacher candidate stress in order to enhance learning while still in the process of ITE. The following code extends the first code of presenteeism, by presenting teacher candidates experience of decreased rumination as a specific mechanism teacher candidate discussed as enhancing cognitive and emotional resources.

### 9.2 Decreased Rumination

Rumination refers to having persistent thoughts occurring; over-analyzing that becomes worrying or brooding. Rumination is a term introduced in the MBWE curriculum that helps teacher candidates notice when they are having repetitive (often negative) thoughts in their mind. For many, being introduced and bringing awareness to their ruminating tendencies is an
important step in helping teacher candidates let go of them and return to a place of presence. Thanh, a middle aged Vietnamese Canadian with a background in actuarial science, articulates the value of practicing mindfulness in helping her to let go of negative ruminations.

Especially when I don't practice mindfulness, life becomes so chaotic and I become so uptight. Some days I am just there but my mind was not there, I couldn't get anything. I got very frustrated and spiral downward but luckily I know how to stop there. I used to ruminate when something wrong happened but with this practice, I feel I am very good now at stopping from spiraling. . . . When you stop ruminating your mind is clearer and you are able to concentrate on what you are supposed to learn. I can see that I learn better, even though that I am getting older and my memory isn't as good as it used to be, I can see that I learn better, because I am more concentrated on what I am doing. Mindfulness means being aware of the moment so when I was in other courses I enjoyed them more. I can see a clearer picture and I am more organized because I am not running on auto-pilot and things like that so in general I function better in everything in life including other courses in my ITE program.

Thanh articulates the connection between rumination and learning when she talks about having a clearer mind and strengthening concentration. If Thanh is continually spending time thinking about the past or planning for the future, she will have less resources to focus in the present, and less engaged in her process of learning in ITE. A specific rumination that is common for teacher candidates, and contributes to dis-engagement in ITE is questioning the value of the teacher education program.

A common perspective amongst teacher candidates is that the main learning in teacher education takes place in practicum while the time spent at the faculty of education is less practical and overly theoretical. This perspective is a problem documented in the literature as outlined in chapter 2. In the present study, teacher candidates articulated their experience of this perspective as becoming cynical in teacher education. For example, Deborah is a 37-year-old Caucasian Canadian, mother of 2 young children, and comes from a family where both her parents were teachers. Colleen took the Stress and Burnout class in second semester. Deborah described her dissatisfaction within initial teacher education and the role that mindfulness played
for her in staying present in her classes. She recounts her experience of doing a lot of ‘busy work’ in teacher education – work that wasn’t necessarily difficult or that valuable for her learning, but took a lot of time to do. The first quote is from Deborah who described her frustration in teacher education, and the second quotation is from another teacher candidate who describes how cynicism arises amongst teacher candidates. Interestingly, both teacher candidates describe how they each used mindfulness to cope with the negativity.

*Especially in January when I started this class (MBWE) there was an extreme type of negativity going on in all the classrooms and I had it as well. There was a lot of frustration regarding what we were getting out of this education. Like you did practicum and that was so much to take in at once and then people were saying I need to know this I need to do that. I was the same way, I was saying I don't know why I am here because I didn't feel I was getting the lesson planning training or things like that. A lot of the classroom discussion was around what we wanted to get out of the program and there was a lot of tension in classes and a lot of negativity. . . . I remember thinking, I can't get up and go to class for 2 hours when I am not getting anything from it . . . Then I asked myself, there must be something that this person is saying that I can take with me. I just tried to commit to that and let go of the frustration. In terms of sitting and listening to a lecture, instead of thinking about other things. Committing to listening to it in that moment whether I believe it to be busy work or not. Trying to accept it and find the value in it and staying in that experience instead of doing other things like a sudoku or something.*

*This course has also enhanced my experience of other courses I have been taking in ITE. Reflecting on my school experience, I largely had a mentality in which I just wanted school to be over . . . something resonated with me from mindfulness practice and as a result I have applied awareness to my schooling. Because of mindfulness practices I have learned to be aware of my present education experience and enjoy the process of my schooling. (Rosa - teacher candidate)*

As I began to look more deeply into the data on negative perceptions, I began to realize that the practice of mindfulness has the potential to support teacher candidates in staying engaged in their
ITE experience, instead of getting caught up in negative thought patterns. One of the key mechanisms of mindfulness when working with clinical populations is decentering or reperceiving. The process of decentering supports the letting go of self-centred narrow thinking in order to include a wider scope of perception. Part of this process is practicing being present in order to become more aware of incessant thinking that is not being helpful and simply feeding more negative thoughts and emotions. By continually complaining about teacher education, students are prevented from fully participating in it. The practice of mindfulness does not necessarily fix this perceived dilemma; however, it does help to release teacher candidates from being caught up in the repetitively negative thoughts. In so doing, MWBE supports an attitude of staying open and engaged in ITE.

9.3 Improved Interpersonal Relationships

This code relates to the behavioural dimensions of engagement. Teacher candidates spoke about the prevalence of group work in Initial Teacher Education, and consequently, of the need to develop positive working relationships with their peers. MBWE was seen to support teacher candidates in reducing relational stresses that accompany working in a group of diverse voices and opinions. More specifically, teacher candidates talked about the practice of acceptance and non-judgment with others during activities in other classes. In the following quotation, Florence talks about regulating her own behaviour when interacting in her other classes.

In the class where we talk about very controversial issues, acceptance played a bit part. In the past when listening to someone I would jump on something when I didn't agree with it, and I learned to listen and not judge immediately. As well, not to judge them afterwards based on an opinion that they had. Before, I would judge a person based on a thought.

Joel, a teacher candidate, describes another example of using mindfulness to improve listening in relationships with other teacher candidates.

Having patience to listen to other teacher candidates. To not tune out when you want to. A very large emphasis in ITE is sharing experiences and presenting information that people found or were supposed to research. Even if it is common
knowledge or you have heard it before, or it is not very interesting. To be able to not tune out and go off in other directions but to bring your mind back and make an effort to listen to what they are saying and if there is something valuable I will take it away and if not at least I know what they talked about.

Learning how to stay aware in the presence of others is distinct from traditional solitary mindfulness practice. In his book, *Insight Dialogue*, Gregory Kramer (2007) outlines the importance and practice of mindfulness in relation to others. Cultivating skills of relational mindfulness readily prepares the practitioner to engage those skills when in daily interactions. Heightening presence in relationships helps to bring awareness to conditioned emotional triggers that readily go unnoticed in reaction to other people. Mindfulness practice helped teacher candidates slow down and provide more choice before reacting in social situations, as well as nurturing deeper connections.

Teacher candidates also reported practicing mindful listening and speaking with significant others in their lives and found improvements in those relationships. Enhancing interpersonal relationships reduces many stresses in one's life, has positive effects on well-being. Feeling connected to peers, partners and family and cultivating better working relationships in ITE is a behavioural factor that facilitates teacher candidate engagement.

9.4 Positive Student Experience

Teacher candidates reported that the benefits from the MBWE program transferred into the entire duration of their teacher education program. Teacher candidates who took MBWE in first semester highlighted this theme (of a two semester teacher education program). These participants were able to reflect on their experience from the course over the entire school year (interviews were conducted at the end of the school year for all participants). The two quotations below illustrate teacher candidates using the skills learned in MBWE throughout the entire program.

*I was a lot more open in my second practicum especially, a lot more open. I took a lot of the things we were learning in class away with me and applied those in*
myself as a person and I think because of that I did a lot better at the second practicum. (Mira – teacher candidate)

I was happy I took the course (MBWE) first semester because I took a lot of different things away from it – a lot of practices. Even at the first practicum when you had to stick with the practice, because it is so easy to forget to take time for yourself and lower your stress level. Once I realized the benefit in the first practicum, it informed my second practicum, it helped with the internship and with classes. There was a host of things that it was useful for in second semester all the way till the end of this program. (Nadia – teacher candidate)

This code suggests that the MBWE course supported engagement in other courses being taken and throughout the entire ITE program. Many of those who took MBWE in second semester wished they had taken the course in first semester. Common feedback from students related to having the MBWE as a full year course, potentially more spread out in an attempt to stay more engaged with the process and practices throughout ITE.

MBWE provides greater balance to the ITE experience for teacher candidates. MBWE is a unique course in content, design and pedagogy. Teacher candidates pointed out the value of having a novel course that focused on personal elements and practical life skills that helped them create a sense of balance within their experience. Balance in course content and pedagogy is considered an institutional factor (initiated by the institution) that contributes to student experience and overall student engagement. An institutional dimension represents an effort on the part of the institution to support students learning through unique curriculum and learning opportunities or student services. Rosa, a teacher candidate speaks about the unique practical elements of MBWE, which served to create a balance in her experience in ITE.

For me it brought balance to this year. It is a lot of theory and pedagogy and this was something practical. I could walk away and have something concrete in my mind, a tool that I can use at any time either in my teaching or in my life . . . . The teacher education program is a ridiculous amount of work and assignment that cause unnecessary stress in your life and then a course that works with your stress and eliminating your stress or bringing that stress down.
Leo, a teacher candidate speaks to the added value of having a course that focused on him as a person, which balances with the focus on preparing to be a teacher, and how that institutional dimension supported his perspective of teacher education.

*I feel like someone cares about me, in my growth, health and happiness – I feel a lot better about my ITE experience. That someone cares about me not burning out as a teacher, and teaching me ways of living a healthier life for myself, that is touching in way, and helpful.*

Feeling cared for and participating in a diverse and meaningful curriculum supports a positive student-teacher experience and in turn engagement in teacher education.

### 9.5 Implications

Follow up research on this theme can be done to more empirically test this finding. For example, compared to a control group, teacher candidates who undergo MBWE or another mindfulness-based training can be tested for levels of engagement in their learning process. The National Survey of Student Engagement (NSSE) is an example of highly tested instrument used to measure student engagement (Kuh, 2009). Another method to further clarify this finding would be to analyze teacher candidate’s exit surveys at the completion of their teacher education program and compare students who completed MBWE to those who did not.

This finding suggests that in addition to the content of the MBWE being relevant to their professional preparation, mindful wellness supports students in their process of learning in other courses and can be thought of as an enabling factor for learning in higher education. With the rising incidence and more severe cases of stress and mental health issues in higher education, as discussed in the literature review, mindfulness-based training and practices can be integrated into more programs and courses in an effort to support student learning. Post-secondary institutions need to take into consideration the whole student, and develop a more comprehensive approach for supporting student success. Simply relying on student services as a resource for students in crisis is not the most effective approach to this problem especially when we begin to look at this issue within the framework of enabling learning. In post-secondary schools across North America there is a growing trend toward mindfulness-based programming being made available
for students, typically through student services departments. As well, there is a growing initiative towards contemplative education in higher education, (www.acmhe.org) which is an organization consisting of faculty from diverse disciplines who are integrating a mindfulness perspective into their courses (Palmer, Zajonc & Scribner, 2010).

From an ethical perspective, public institutions of higher education can take more responsibility for the continued process of human development young adults are going through in their undergraduate and graduate years of schooling. Publicly funded institutions of education from elementary through higher education maintain a responsibility in contributing to the overall well-being of their students, and not simply as a transmission of content knowledge. There is a growing trend in major universities in having centres of teaching and learning that support faculty throughout the institution, for example the Centre for Teaching Support and Innovation at the University of Toronto. In addition to supporting faculty with pedagogical strategies for teaching in large classes and using technology based learning, these centres are an opportunity to support faculty in developing a more holistic approach to their teaching which will support student learning and well-being as well as faculty growth and well-being. In sum, the argument for mindfulness-based training for teacher candidates also holds true for faculty in schools of higher education.

Teacher candidate engagement is understood here to involve a behavioral investment of time and attention. This includes both a cognitive as well as emotional expression of curiosity, openness and investment. In this theme, various skills, practices, and content by which MBWE contributed to teacher candidates’ engagement were explored. Teacher candidates described their overall experience of initial teacher education was positively affected by reduction in stress, and tools for coping with negative thought patterns. Engaging in relational mindfulness practice, teacher candidates were supported in their personal and collegial relationships, and encouraged with regards to their participation in other courses. Teacher candidates also suggested that MBWE supported a more positive student experience by bringing more balance to their year. In sum, MBWE nurtures teacher candidate engagement in their learning in other courses and within their overall professional preparation experience.
Chapter Ten

10 Conclusion & Implications

Teacher education is typically framed as preparing teachers for the future. The purpose of this study however, was to investigate the value of preparing teacher candidates’ for the present, as a way of preparing them for their future profession. This preparation is framed through the concept and practice of mindfulness and mindfulness meditation. Mindfulness training, a process in learning to be present, was taught in teacher education, and in turn insight was gleaned pertaining to the benefit of such training from teacher candidates’ experiences. The most obvious benefit of mindfulness for teachers is stress reduction; mindfulness training has been shown to positively affect the health and well-being of professionals both in the field and in-training (Shapiro & Carlson, 2009; Hicks & Bien, 2008). This study used a grounded theory methodology in order to unearth new insights into various aspects of teacher education and pedagogy. Action research framed the research design taking place over two years using three consecutive sections of Mindfulness Based Wellness Education (MBWE); an iterative process of teaching, asking questions, and revising the curriculum. Because mindfulness practice and training is relatively new to the field of teacher education, a qualitative approach was deemed an appropriate research methodology for this emerging field of study. My underlying assumption was that mindfulness did hold value in learning and teaching, a perspective gained through my own experience both learning and teaching, and complemented by rising theory and research. The focus of this study was to help translate the value of mindfulness training into theory and practice of teacher education.

10.1 Learning, Learning to Teach, & Teaching

MBWE supported teacher candidates in their process of professional preparation. Teacher education is typically criticized for being overly theoretical instead of providing a more practical, skills-based training. By contrast, participants found MBWE to be practical learning for their personal and professional lives. Teacher candidates were not only better prepared for their careers as teachers, they were also engaged more broadly in cognitive, emotional and social ways...
of learning. Moreover, providing teacher candidates with a genuine experience of constructivist learning in MBWE works in contrast to a teacher-centered apprenticeship of observation accumulated over previous years of schooling. The MBWE course challenged teacher candidates’ to become aware of previous conditions that contributed to their conception of teaching, and to develop a more intentional approach to the classroom.

The results of this study showed that teacher candidates developed their personal and professional identity in parallel to a more holistic vision of teaching. Although no teacher education programs would doubt the relevance of the personal to the professional, there is a demonstrated lack of focus in developing qualities of a mindful disposition. MBWE creates an in-depth process of personal development that facilitates the unfolding of adult development. Additionally, learning in MBWE was found to nurture a holistic vision of teaching that prepares teacher candidates for teaching to the expanding curricular initiatives in education (i.e., social and emotional learning, environmental education and global citizenship education).

In regards to teaching practice, mindfulness training develops social and emotional skills for the act of teaching. Being able to regulate one’s own emotions and attune with students are key skills in the art of teaching. Teacher emotions play an influential role in shaping the classroom experience. Learning to self-regulate oneself while teaching reduces reactivity that often escalates behavioural problems and classroom management issues. Deficiencies in emotion regulation can also lead to teacher stress and burnout, which has a negative impact on the teacher, classroom, school, and wider system of education. Teachers who are able to regulate their emotions, and develop positive emotions and compassion are better able to attune with their students. Attuning with a classroom of 30 students is different from the therapeutic relationship where attunement is central between the therapist and client. Being present with students as a group, and with individual students is facilitated through a teachers’ own capacity for intrapersonal attunement (being able to attune with oneself) – a competency developed through the practice of mindfulness. Through these methods of attunement, teacher candidates were able to deeply listen and respond more accurately to arising needs within the classroom. By reflecting-in-action, teacher candidates were better able to respond to their students, and make room for teachable moments. Developing more attuned relationships in the classroom further contributed to a calmer classroom environment, and reduction in problem behaviour. On practicum, teacher candidates also learned the value of using mindfulness-based practices with
students as a pro-active strategy in focusing and calming students, creating a more conducive learning environment.

The five main themes found in this study, (Identity, Reflection, Social and Emotional Competence, Vision of Teaching, and Engagement) are considered to be central foci for future research. Continuing to investigate these themes qualitatively and quantitatively will enhance clarity in relation to mindfulness training and teacher education. For example, future research can conduct pre-post studies using self-report questionnaires on student engagement with teacher candidates who undergo mindfulness training in teacher education. Enhancing engagement in teacher education contributes to richer learning experiences in the process of professional preparation.

This dissertation also focused on improving teaching and learning taken place in the MBWE program and highlighted key pedagogical and curricular components for teacher education. The first section of chapter four described the process of developing assignments used in MBWE in order to facilitate learning. Assignments are outlined in order to highlight successful strategies for other practitioners teaching mindfulness within a professional context, as well as to highlight successful strategies used to enhance student engagement in professional preparation. The second section highlights various other methods incorporated in order to heighten teacher candidate engagement in MBWE – including diversity and flexibility in mindfulness practice, developing a calm and welcoming classroom culture, and curricular additions such as the day of mindfulness. The third section outlined relevant backgrounds of teacher candidates entering mindfulness training. Understanding how to connect students’ backgrounds to mindfulness is an important aid in facilitating the learning process.

In synthesizing my learning from this study, I developed a model of pedagogical well-being which is presented in the following section. Pedagogy of well-being is a central implication in studying the process of teaching and learning of mindfulness-based wellness education in teacher education. The pedagogical model of well-being is described in relation to three overarching constructs guiding teacher education, namely disposition, content knowledge and instructional repertoire. Further, the section discusses this model within a more holistic perspective for integrating mindfulness into education.
10.2 Pedagogy of Well-Being

Pedagogy of well-being is a broad construct encompassing the integration of mindful wellness into a teachers’ philosophy and practice in the classroom. Pedagogy is being understood as how a teacher prepares, a teacher’s underlying beliefs and worldview, and how such a background is enacted in activities, materials, and assignments a teacher selects and develops. The current literature on mindfulness training for teachers has typically been framed as developing mindful teachers, and preparing teachers to teach mindfulness. A “mindful teacher” approach emphasizes a teacher’s own mindfulness practice, compared to “teaching mindfulness”, that focuses on bringing in outside programs with set curriculums to teach mindfulness to students, or teachers being trained to implement a specific program. Pedagogy of well-being includes both mindful teaching and the integration of mindfulness-based strategies with students, as well as a greater integration of mindful wellness principles and perspective (i.e., a holistic approach) into the fabric of their lessons and daily classroom activities. This additional element moves the purpose of mindfulness training for teachers beyond a strategy for stress reduction, or transmission of a technique in order to implement with students in the classroom. Pedagogy of well-being is a learning objective of the Mindfulness-Based Wellness Education program that cultivates a more holistic and integrative approach to teaching.

Developing one’s pedagogy of well-being is a dynamic process that matures in the ongoing personal and professional learning of the teacher. This process looks different for each teacher given diversity in their personal background, teaching context and subject matter. Figure 10.1 illustrates a model of pedagogy of well-being. I begin with a discussion on disposition development, and the role of Mindfulness Based Wellness Education in developing mindful teachers.
10.2.1 Mindfulness as an Emerging Disposition in Adult Development

In this study, teacher disposition is being understood as the inclination or natural tendency in habits in mind and heart that are conducive for effective teaching in the development of the whole child. Although the development of disposition should not take precedence over learning content knowledge or instructional repertoire, I argue that developing disposition needs to be taken more seriously as a critical component of teacher education. The ambiguity which surrounds disposition creates a need for greater specificity – both regarding processes of development and assessment. The following discussion will situate the question of teacher disposition within broader issues of adult development.
Teacher education is not typically modeled on a conception of human development. The primary focus in teacher education, as in many other professional programs, is intellectual content knowledge and instructional repertoire. This is often justified by the fact that the admissions process for teacher training typically screens applicants based on already having the appropriate disposition for the profession; teacher candidates are already seen to possess a helpful and caring demeanor, and a general enthusiasm for helping children and adolescents. Although these basic qualities are an important foundation for entering the profession, my argument has been that they are simply not enough. If for no other reasons, the recent literature on teacher stress and burnout tells us that more work needs to be done in order to better prepare teachers for the demands of their profession. This matter bears enormous consequence, as these teacher candidates will likely become central adult role models for children and adolescents: K-12 students are just as likely to learn from the overall disposition of their teachers. For students’ sake, as much as for the teachers, a case is made for a more thorough consideration of what constitutes disposition. The pedagogy of well-being model responds to this challenge by situating the issue of adult development precisely within the overall objectives of initial teacher education.

My central proposal is that becoming more mindful emerges within the process of ongoing adult development and is a process teacher education must focus on more explicitly in order to sufficiently prepare teacher candidates for their role as teacher. We can understand mindfulness within the process of human development from three perspectives: (1) mindfulness as a universal quality of consciousness, (2) the role of mindfulness in cognitive, emotional and social development, and (3) mindfulness in relation to self-awareness.

Mindful awareness is an inherent human capacity. We can understand mindfulness in the framework of human development because mindfulness is a universal quality of consciousness and not a special quality that only some people possess or can strengthen. Jon Kabat-Zinn (2005) reaffirms the inclusive potential of mindfulness by describing mindfulness as “the last common pathway that makes us human” (p.11). Mindfulness is often a latent potential in our human experience, because non-judgmental presence is not a way of being that is reinforced or acculturated in a highly competitive and individualized society. Nevertheless, the potential for being mindful, and the natural inclination toward mindfulness over the lifespan situates this capacity in the realm of human development.
A second way mindfulness fits into human development relates to specific areas of
development. Theories of human development emphasize different aspects of development such as
cognitive, emotional, and social capacities; rarely do we find a comprehensive theory that
takes into account multiple dimensions of development. Mindfulness is a complex construct that
is related to all three dimensions (cognitive, emotional and social) which is seen through the
various ways research on mindfulness is being understood. For example, the role of mindfulness
in attention, executive function, memory, emotion regulation, compassion, and interpersonal
attunement. The development of mindfulness plays an integral role enhancing the functionality
of cognitive, emotional and social domains, as well as in structural brain development (Lazar et
al., 2005; Holzel et al., 2010). The prefrontal cortex is an area of the brain often referred to as the
last part of the brain to fully develop (still developing in the 20’s), and has been described as the
part that makes us uniquely human. The prefrontal cortex is described as the “CEO” of the brain,
the executive for decision-making and regulating behavior (Siegel, 2007). When operating
automatically and reactively (i.e., without awareness) certain areas of the prefrontal cortex are
less active. By contrast, more complex neural integration is found in meditating adults. This
simplification is not meant to infer that mindfulness acts exclusively upon, or from the prefrontal
cortex, but rather to correlate activation in this area of the brain with behavior that demonstrates
higher levels of awareness and decision-making. Moreover, this research helps to underscore the
fact that this part of the brain is still in process of development well into our adult life, and
mindfulness training seems to promote increased functional development.

A third reason for situating mindfulness in the process of human development is that a
central theme in psychological models of adult development demonstrate increasing levels of
complexity in terms of self and relational awareness (Kegan, 1983, 1994; Tolbert, 1987).
Research on the relationship between mindfulness and self has been discussed at great length in
previous chapters as facilitating both a more complex notion of self and experience of self
(Roeser & Peck, 2009; Farb et al., 2007). According to developmental psychology from a
Buddhist and Western perspective, people regarded as reaching higher stages of development
have learned to integrate greater degrees of awareness into their day-to-day life and developed a
more complex notion of identity that is not fixed and rigid, but more malleable and always
changing (Kornfield, 2009; Kegan, 2004). Mindfulness, an experience of non-judgmental
presence contributes a novel perspective of self, and others, facilitating our underlying way of making meaning in our lives.

Mindfulness training can be understood as a universal process in facilitating adult cognitive, emotional and social development; an integral part in professional preparation. Below, Sarah a teacher candidate describes her process coming into teacher education and going through a process of adult development.

_I think the MBWE program has huge value. From my own personal point of view, pretty much right out of undergrad, I am new at “being an adult”. . . . MBWE gave me the skills and tools that I need to then take this professional training and use it for the rest of my life. As part of my life, not just as one separate aspect of my life, not just as professional Sarah but Sarah as a whole. That was invaluable I found._

Developing mindful awareness is accessible for all teacher candidates, no matter their personal background, and facilitates their ongoing process of human development, enabling them to live, learn and teach from a higher ground. Advancing this discussion into the next section, I outline why mindfulness is an appropriate dispositional aim in teacher education.

10.2.1.1 Mindful Disposition

An important aspect in clarifying disposition in teacher education is articulating specific qualities of disposition. Current models of disposition frequently distinguish between a temporary state (i. e., behaviour) and an enduring trait (i. e., trend in behaviour). The development of disposition is regarded as a honing in on those states that we want to make more enduring. Ritchhart and Perkins (2000) define disposition “as a psychological element consisting of three components: sensitivity, inclination and ability. Sensitivity is awareness for engaging in certain behaviour. Inclination is the motivation or habit for a behaviour, and ability is the capability for enacting the behaviour” (Ritchhart and Perkins, 2000, p. 30). These three elements work together in the development of disposition – and each in its own way is necessary for the cultivation of long-term change. Working within a mindfulness paradigm, MBWE has been shown to develop these three aspects of a mindful disposition. First, by introducing teacher candidates to a range of mindfulness exercises, the aim is to cultivate a _sensitivity_ to being mindful in multiple contexts.
Here, you might say, MBWE seeks to cultivate a sensitivity or awareness that was discussed as reflection-in-action. Second, the MBWE program seeks to develop a concrete *motivation* for maintaining a mindful disposition. This, of course, can only be achieved if one recognized the potential benefits of such a disposition, or if one’s current behavior is somehow shown to be wanting in certain capacities. Such motivations are thus entirely personal, and can only be developed through a sustained process of self-reflection. Third, a teacher candidate’s *ability* to be mindful is cultivated through small but significant steps – registered throughout the MBWE program, as well as in one’s own practical teaching opportunities. Within the current study, the latter skills were often accounted for within the areas of social and emotional competency, each of which can be be seen as operative within the framework of a mindful disposition.

Ultimately, I argue that mindfulness is an appropriate dispositional way of being that can be cultivated in teacher education. Its relevance follows from the fact that it engages teachers both at the personal and the professional levels. Teacher candidates learn to value mindful awareness in their life, develop the skills for being mindful, and apply these skills within multiple contexts in order to enhance their professional practice.

### 10.2.1.2 Mindful Teacher

A pedagogy for well-being draws from the embodiment of a teacher’s own personal practice of mindful wellness. For many coming into MBWE, the practice and concept of mindfulness is new. By developing a greater understanding of mindfulness, both as a concept and as a practice, teacher candidates are then able to transfer the learning into their professional lives in the classroom. Within the context of MBWE, this trajectory is perceived through the teaching practicum, where teachers finally have the opportunity to test the efficacy of their own mindfulness practice. The practicum becomes an opportunity to really gauge their own capacities for patience and present-moment awareness. Mindfulness offers a model, and a set of distinctions by which to consider one’s own presence within the classroom such as being more responsive instead of reactive during challenging moments in the classroom, or simply to pause and wait as students consider a response to a question.

MBWE supports teacher candidates in becoming mindful teachers through the routine of both formal and informal mindfulness practices. Even though the formal practices are less obviously related to one’s in class experience, they are nevertheless an essential component to
the overall picture. It has been shown that the formal practice of mindfulness (i.e., sitting meditation) supports the more informal practices that occur within our everyday settings. We can think of this relationship like tuning an instrument. If we’d like our instrument to play a certain note in our performance, then we always tune it beforehand to ensure it will sound the way we want. Sitting in a formal meditation is an attunement with our minds, hearts and bodies so that we are more quickly able to access that same note in the unfolding performance of life in the classroom.

We can also think of our formal mindfulness practice as lowering our temperature on a stress scale. If we take the time to lower our temperature in this regard, two things naturally unfold. First, it takes longer for our temperature to rise to levels that may become destructive to both ourselves and to those around us. We are less likely to react, and more likely to respond. Second, by repeatedly accessing deeper states of mindfulness, we develop productive patterns and strengthen our neural networks for processing information with greater patience. We are better prepared to catch ourselves within the moment, and regulate our temperature control. The following are excerpts from one teacher candidate’s mindful teaching journal. Here, Jon reflects on the function of mindfulness practices while on practicum:

I typically get really nervous in new situations or when I am doing something where I do not know what to expect. The first day of practicum was no different. I was very anxious in the morning and I could feel my nerves growing inside of me. Now I am more aware when feelings like these appear. Before I enter the school for my first official day at Pickering High I sit in my car in the parking lot for 5 minutes. During the 5 minutes I focus on my breathing. I find that my nerves have calmed down and I feel more prepared to begin my day.

Today during my lecture I am teaching a grade 11 math class. My associate teacher isn’t there; there is another math teacher that is watching my lesson. I notice that I have a feeling of intimidation because of this other teacher in the room. The students were having trouble understanding certain parts of my lesson and I felt like the lesson isn’t going according to plan. In the past I have noticed that when something that I did not plan for is happening I tend to get nervous and I tend to sweat. I can feel that my body temperature is increasing and I will start
sweating in front of the whole class. I put the chalk down and turned to face the class at this moment. I take three deep breaths to calm my thoughts. Taking this ten second pause in the middle of my lesson helps me re-establish myself. I ask the class where they are confused in the lesson. We fix the problem and I complete the lesson successfully.

This account describes a more detailed and personal picture of how the processes involved in practicing mindfulness might contribute to a teacher disposition. Needless to say, countless other scenarios exist in which these practices reveal their efficacy. For me, the essential point is that an observable ongoing relationship exists between formal mindfulness practice and professional experience. A mindful teacher is a target for the type of disposition teacher education should develop; a position grounded in the process of human development.

10.2.2 Content Knowledge: Mindful Wellness as the Inner Curriculum

Within previous educational models, curricular development was conceived of through a number of discrete subjects such as Math, Science or English. A teacher enters the field with proven specialty within a given area; their classroom focus was then defined within the parameters of this subject. More recently, there has been a strong push to consider the question of curriculum within a broader field of considerations. Curricular initiatives in education are broadening in scope to include for example, Social and Emotional Learning (SEL), Environmental Education, Global Citizenship Education (GCE), and Healthy Schools. Although not all of these initiatives are being taken up within one school district or fall under the same name, a mandate within many boards and ministries of education are emerging in North America that reflect a deeper commitment toward these more broadened curricular initiatives.

One common element within this expanding curriculum is they share a focus on the inner life in relation to the outer world, and for that reason is being called here, the “inner curriculum.” The inner curriculum reflects various themes related to mindful wellness such as identity, values, and personal & relational enhancing behaviours. The inner curriculum is not typically found as separate courses in K-12 education, nor are they reported on as stringently in student assessment. MBWE offers what I consider to be a valuable model for developing this so-called inner curriculum. Again, the practice of mindfulness nurtures greater clarity into one’s own interior landscape, and finds various ways of perceiving one’s presence within the world. MBWE uses
the wellness wheel as model by which to understand the diversity of our exchanges between the so-called inner and outer worlds, and thus is seen as a model for developing content knowledge for the inner curriculum, as illustrated in Figure 10.2 below.

Dimensions of Teacher Development in MBWE
- Physical Wellness
- Social Wellness
- Emotional Wellness
- Mental Wellness
- Ecological Wellness
- Vocational Wellness
- Spiritual Wellness

Current K-12 Educational Initiatives
- Healthy Schools
- Social Responsibility
- Emotional Intelligence
- Mental Health
- Environmental Education
- Career Planning
- Global Citizenship Education

Figure 10.2. Wellness as an Educational Initiative.

The MBWE curriculum facilitates numerous areas of teacher development and in this way prepares them for a variety of current educational initiatives. For example, teachers developing their physical, social and emotional well-being are enhancing their knowledge base in order to be able to teach current educational initiatives such as healthy school, or social and emotional learning. Further, the development of spiritual well-being relates to notions of interdependence, inclusivity and compassion, underlying principles in educational initiatives such as global citizenship education that focus on promoting democratic living. The inner curriculum is focused on increasing self and other awareness and promoting action based on that awareness. Therefore the inner curriculum is more appropriately learned through one’s own life experience. Teacher candidates going through MBWE have the opportunity to develop their inner curriculum, which also prepares them for teaching to the inner curriculum in their classrooms. For example, in the quotation that follows, a teacher candidate describes her
experience dealing with issues of mental health in the classroom drawing from her own learning of the inner curriculum.

Going through these experiences of learning how to deal with my thoughts, and learning how to be more comfortable in my own skin. That has really helped me because when I go into a classroom and I see students reacting to the material or things that are happening in the class around anxiety and I can immediately pick up on it. I can immediately put myself in the students’ shoes and realize that the student must be going through something and ultimately teaching them how to deal with their stresses in an indirect way.

The process of preparing teacher candidates for enacting an education in well-being must be done in a transformative way. The point is not simply to show teacher candidates how to teach within a social justice paradigm, but to ask teacher candidates to live a life informed by social justice. This is essential as it marks the difference between the external appropriation of a subject, and its comprehension within the paradigm of the inner curriculum. This training, unlike religious dogma, is without a concrete or definitive set of core beliefs. The inner curriculum is intended to be secular and open to a variety of individual experiences. The wellness wheel is simply a point of entry, a model through which to analyze and account for the multifaceted nature of our experience. Developing mindful wellness is like developing one’s inner compass; content knowledge that includes wisdom of awareness for compassionate action.

10.2.2.1 Teaching the Inner Curriculum

A pedagogy of well-being seeks to integrate the inner and outer curricula. Again, the latter simply refer to the core content areas, with learning objectives clearly outlined and distinctly recognized within the K-12 system. The outer curriculum also makes use of fairly standardized methods of evaluation as grades are assessed and reported on throughout the year. By comparison, the inner curriculum – as it has been defined through recent initiatives in education – is much less defined in its methods.

Integrating the inner and outer curriculums is learning to infuse a focus from the inner curriculum with a class on the outer curriculum, i.e., teaching math through a social justice perspective or instructing a lesson on literacy through a social and emotional learning lens. How
this is taken up in the classroom is left to be defined by the teacher in his or her own class, and depends on their own content knowledge of the inner and outer curriculum. This model is primarily trying to illustrate to teacher candidates a way of approaching their teaching in a more holistic way – an approach that integrates current curricular initiatives of well-being with core curricular subjects.

Teachers learn to bridge the inner and outer curriculum through principles, practices and perspectives of mindful wellness learned through their own experience of the inner curriculum. For example, key principles such as inter-dependence, compassion, non-judgment, uncertainty, balance, and inclusivity can be infused into the design of an integrative curriculum. These principles may not be explicitly brought forth in the classroom; however, once this knowledge is learned through one’s own life, they serve as a guide in framing the curriculum. Teachers can draw upon diverse perspectives in bringing together the inner and outer curriculum such as Self – Subject – Community, or Mind – Body – Environment; perspectives highlighted by Miller (1996) in his conception of a holistic curriculum. Further teachers can use transformative practices in bridging the inner and outer curriculum such as breathing exercises, visualization, and contemplative art, music & movement.

This section has been exploring the importance of content knowledge in developing one’s pedagogy of well-being in order to be able to teach to a more integrative curriculum. An integrated curriculum balances both the outer (more explicit) curriculum and the inner (more implicit) curriculum through principles, perspective and practices of mindful wellness. The next section moves the discussion to the role of mindfulness as an instructional strategy in a pedagogy of well-being, and begins with an introduction to current literature on mindfulness practice and child development.

10.2.3 Exploring Mindfulness from a Child Developmental Perspective

Mindfulness, and mindfulness-based practice is an emerging area in the field of child development. Researchers are beginning to inquire into the developmental impacts (cognitive, social and emotional) of mindfulness-based practices with children. For example, in June 2010, I attended the Mind and Life Summer Research Institute, a week-long neuro-scientific research conference on the topic of human development, contemplative practice and education. Leading international researchers and scholars gathered to highlight current research and promote the
further investigation in this field of research. There is an increasing research agenda investigating developmentally appropriate mindfulness-based practices for children and youth.

These research questions are novel, in part, because within a traditional Buddhist approach, mindfulness meditation practices were developed for adults in contemplative monastic training and not introduced until monks were into their late adolescents or early stages of adulthood. And yet, even though children and youth may not be developmentally able to fully participate in mindfulness meditation practices, certain exercises can still be beneficial and act as precursors for healthy development at later stages. For example, in monastic traditions children and youth engage in practices that heighten concentration and attention such as memorizing important texts. Developmental psychologists and educators are now faced with the challenge of finding equivalents to such traditions within a more contemporary setting. This requires a more thorough understanding of mindfulness, mindfulness-based practices, and the impact on such practices on social, emotional and cognitive development.

Preliminary evidence suggests mindfulness-based practices with children and youth are beneficial. In a study with 2nd and 3rd grade children, Flook and colleagues (2010) conducted a randomized controlled trial of an 8-week program of Mindful Awareness Practices (MAPs) to see the impact on executive function. Core executive functioning skills are (1) inhibitory control (resisting habits, temptations, or distractions), (2) working memory (mentally holding and using information), and (3) cognitive flexibility (adjusting to change). Children with poor executive functioning skills, who were then exposed to the MAPs training, showed improvement in this area. Analyses also showed significant effects for behavioral regulation, meta-cognition, and overall global executive control reported by teachers and parents of the children, suggesting that these improvements transferred into multiple contexts.

Attention is a developmental focus of many researchers. And yet, although teachers typically spend a great deal of energy trying to get students to pay attention, rarely do teachers spend time teaching students how to pay attention. This marks a substantial deficit in teacher awareness, as no clear guidelines exist by which to encourage student attentiveness. There is some evidence, however, that mindfulness practices might provide a helpful area to explore. A feasibility study by Zylowska and colleagues (2008), showed that adolescents with Attention Deficit and Hyperactivity Disorder (ADHD) trained in paying attention using mindful awareness
practices showed improvements in self-reported ADHD symptoms such as anxiety, depressive symptoms, and working memory. The broader notion of executive function is also of interest with adolescent populations considering the onset of physiological development such as puberty is occurring earlier, while decision making faculties for example - ability to inhibit inappropriate behaviour are still in process of developing (Davidson, 2010). Given adolescence is a time of enhanced brain development marked by intensive neuronal growth and pruning, it makes sense to strengthen areas of the brain related to executive function.

10.2.4 Mindfulness-Based Strategies

A pedagogy of well-being includes a series of more direct actions and interactions to be carried out within the classroom. These are mindfulness-based practices for which the teacher’s authenticity is essential. By this I mean to suggest that the success of these exercises is contingent upon the teacher having already achieved a personal awareness of mindfulness – and not simply from an intellectual understanding of the concept and practice. A teacher’s personal mindfulness practice is therefore a necessary area of both curricular and pedagogical content knowledge. Whereas curricular content knowledge refers to subject matter knowledge, pedagogical content knowledge refers to subject matter knowledge for teaching (Shulman, 1986).

Diverse strategies can be used in the classroom ranging from very simple, to a more formal mindfulness-based curriculum. Beginning at a more basic level, teacher candidates learn the value of including brief breathing practices with students such as taking 60 seconds to focus on the breath, or taking a stretch break to calm the body. Such basic practices do not necessarily fit into a larger mindfulness-based curriculum, they serve as a strategy for calming the class and focusing students. Three key guidelines when learning to integrate basic mindfulness practices in the classroom are language, progression, and timing.

Choosing the appropriate language to introduce mindfulness-based practices is context dependent. Teachers need to evaluate which descriptors will be more readily accepted by school leaders, parents, as well as by students. For example, mindfulness or mindful awareness may not be a user-friendly word in describing these exercises, and may raise unnecessary resistance from the school community. Mindfulness based practices can be described as attention training, focusing exercises or calming practices used to reduce student stress, regulate emotions and
strengthen student engagement. Approaching mindfulness-based activities as training in attention makes a great deal of sense to a culture that is breeding attention deficit and hyperactivity.

Using appropriate language to describe the exercises to students is equally important. Language will depend on the grade level and course in which the practice is taking place. For example, with younger students referring to “quiet time” may be more welcoming, and with older students “chill time” or “taking a breather” may be a more inviting language to use. Dr. Amy Saltzman, an MBSR instructor who is a leader in the development of mindfulness-based curriculum for young children, refers to mindfulness practice as “still quiet place” (www.stillquietplace.com). Susan Kaiser Greenland (2010), creator of the “Inner Kids” program, frames her work as the new ABCs: Attention, Balance & Compassion. Those programs are essentially teaching the same skills, they are simply finding different ways to frame the work in their teaching contexts. It is important for teachers to use language they themselves are comfortable with, and that will fits within current priorities of their school and districts.

Progression is essential to learning to teach mindfulness. Like most new initiatives introduced into the classroom, it takes time for students to adapt to new terms and practices. By making mindfulness-based activities part of the daily routine, students become accustomed to the exercises. When first introducing mindfulness into the classroom, it is common for students to struggle remaining quiet and still. Many students giggle or use humor as a way of resisting an uncomfortable silence. Part of a teacher’s role within this process is to respond and not to react to these forms of behavior. It requires a great deal acceptance and patience not to condemn these activities, but to allow them to be played out, and worked through. A mindful teacher is better prepared to operate within these scenarios – constantly balancing his or her own hopes and expectations with the demands of a particular classroom context.

From short mindfulness practices, one can gradually build up to more substantial exercises. Sixty seconds is an achievable and worthwhile goal to begin with in a classroom as it introduces the practice of calming and settling. Once students learn this practice, extending the time of practice will allow the teacher to continue scaffolding instructions. A traditional starting place for mindfulness practice is bringing awareness to the body and the breath. With practice, these simple instructions can be extended to include awareness of emotions, sounds, and thoughts. In each of these, the strength of the exercise lies in the teacher’s ability to point
students to an element of their experience that had been previously taken for granted. The challenge is to find those descriptors that make new that which is already very familiar: the body, the breath, our thoughts, etc. In all of these cases, metaphors are essential in giving students a new set of ways of imaging and paying attention to themselves. For example, the metaphor of a snow-globe is effective at illustrating the value of sitting still after being shaken up in order to allow the mind to settle.

Students can learn to appreciate the practice of being present in many different areas of their lives. Applying mindfulness to eating, listening, reading, playing sports will help students connect with the practice of mindfulness as a general model of attentiveness. Gina Biegel (2009), an educator and researcher in the area of mindfulness for youth provides mindfulness exercises that focus on bringing awareness to daily activities such as taking a shower, in her workbook and compact disc for “Stressed Teens”. Teacher candidates in MBWE learn the value of this technique through their own experience learning mindfulness in their daily life through informal practices of mindfulness discussed previously.

Another helpful guideline when bringing mindfulness into the classroom is timing. Inviting students to participate in a mindfulness-based practice before starting a test is a helpful support for students in calming down from pre-test stress. Students often report they benefit from taking some time to breathe and focus prior to taking a test. Teacher candidates in MBWE also reported using a mindfulness practice between lessons or activities as a means of creating fluid transition. Teacher candidates spoke about transitions as points in their teaching practice that they often didn’t plan for, and implementing a mindfulness practice was a strategy for creating a smooth transition from one exercise to the next without losing students’ focus, and with giving the teacher a moment to pause before starting something new. Although mindfulness-based strategies is useful for calming a class, this strategy should be used cautiously when a class is misbehaving so mindfulness practice does not become seen as a type of punishment. Instead of using mindfulness as a type of “time-out”, which may develop negative associations with being mindful, using mindfulness practice as an opportunity for “time-in” on a regular basis may help reduce problem behaviour from arising.

Language, progression and timing are three elements to consider when implementing basic mindfulness-based strategies in the classroom. More comprehensive mindfulness-based
programs for children and youth are also becoming an option for teachers. The next section reviews two such programs.

10.2.5 Mindfulness as an Intervention for K-12 Students

With the increasing interest of mindfulness in education over the past four years, a number of curriculum-based initiatives have been created and are currently being implemented in K-12 classrooms. The Hawn Foundation (www.thehawnfoundation.org) developed MindUp, a 15-week curriculum for grades K to 7 that provides children with emotional and cognitive tools to help them understand and improve their own emotions, moods, and behaviours. Teachers take a one day training for MindUp in learning how to implement the program in their classroom. In the most recent empirical study of the program, children who received the MindUp curriculum (a) showed greater improvements in cognitive control, stress regulation, optimism, and empathy, (b) showed greater decreases in depression and aggression, (c) were rated by their peers as more trustworthy, kind, and helpful and, (d) had higher math grades and were absent fewer days from school (Schonert-Reichl & Lawlor, 2010). Over the past 4 years, MindUp has been integrated into a number of the Vancouver School Board elementary schools. Over the past five years, 500 educators have been trained to implement the MindUp curriculum.

The BREATHE program, developed by Trish Broderick is a comparable curriculum being implemented in highschool settings. BREATHE is a six-week program delivered by a BREATHE instructor in the context of the physical and health education curriculum. Broderick and Metz (2009) conducted a pilot trial of BREATHE with 120 high school senior females and found reductions in negative affect, tiredness, aches, and pains, as well as increases in emotion regulation, feelings of calmness, relaxation, and self-acceptance. A number of recent studies integrating mindfulness-based programs into school contexts demonstrate positive signs of stress reduction, mental health, and emotion regulation with children and adolescents (Mendelson, Greenberg, Dariotis, et al., 2010; for a review see Burke, 2009; Biegel et al., 2011).

Teaching mindfulness to K-12 students is perhaps the most direct approach in bringing mindfulness into K-12 education; however, it may not be the most sustainable approach when thinking about the potential benefit of mindfulness in education. A central concern with the direct approach (i.e., where students receive training from an external instructor or as a formal curriculum from the teacher) is that it may reduce the practice of mindfulness into a simple set of
techniques. This is quite different from an understanding of mindfulness that is developed through a more holistic approach to teaching. For example, within pedagogy of well-being, teachers come to embody the principles and practices of mindfulness, and learn to integrate their learning into an approach to teaching. This approach includes the use of mindfulness-based strategies in the classroom to reinforce a way of being in the classroom, and also to create integration between students and subjects. In other words, there is a danger that mindfulness is taken up as a quick fix to more systemic problems within the educational system. Caution is needed so mindfulness is not simply taken up in education as the “new initiative of the month”, as integrating mindfulness into education requires a more dramatic shift in the way teaching and learning is approached.

10.2.6 The Process of Learning & Change in Teachers and Education

A proposal in developing a pedagogy of well-being is complex from a research perspective, and can be better understood through a continuum of learning in MBWE. Pedagogy is a process of development that continues far beyond a one-year teacher education program so measuring the “success” of MBWE for example, would more accurately have to be understood within developmental stages over numerous years. Considering teacher candidates enter into MBWE with various experience and knowledge in mindful wellness, there are various stages of learning that teacher candidates go through in the process of developing their pedagogy of well-being. Components of a pedagogy of well-being describes the continuum of learning in MBWE, as illustrated in Figure 10.3. I have found that teacher candidates who are learning mindfulness for the first time in MBWE become primary users in their personal life, and second in the classroom. Teacher candidates’ entering the MBWE program with prior experience of mindful wellness, are more willing and able to effectively implement mindfulness-based strategies in their classrooms with students, and able to develop a more complex integrative understanding and implementation of mindful wellness in their teaching. The foundation for learning across the continuum is the participant’s personal mindfulness practice. Addressing systemic and sustainable change in relation to mindfulness training is further research worthy of pursuit. The Concerns-Based Adoption Model (Hord, Rutherford, Huling-Austin & Hall, 1987) is an example of an evidence-based research tool that may be helpful in understanding teacher change and levels of use when being introduced to mindfulness-based training.
A central perspective in this study articulates the importance of enacting a pedagogy of well-being in K-12 education, rather than specifically teaching a separate mindfulness curriculum explicitly to K-12 students. Although I maintain the importance for teacher educators enacting their own pedagogy of well-being (which would contribute to mindful teacher education) providing a prerequisite course as part of teacher education is a necessary component for teacher candidates undergoing the more intensive learning experience required in developing their own pedagogy of well-being. Enacting mindful teacher education would require more intensive mindfulness-based training on the part of teacher educators, and perhaps is not a realistic goal for teacher education. Although integrating mindfulness into other core classes within teacher education can be seen as an important part in the process of change, such as integrating mindfulness into various core subjects within teacher education, such as in educational psychology, in relation to concepts of human development, and classroom management, such an approach should not be seen as a substitute for a more formal mindfulness-training program for teacher candidates.

In moving toward a more sustainable change, mindfulness-based training for teachers should be ongoing, such as the eight-week MBWE program. As teachers become more skilled users of mindfulness in their own lives, they become more readily able to integrate mindfulness
into their professional lives and approach to teaching. Providing training for teachers over eight weeks enables participants to test out their learning in the classroom between sessions and then report back on their learning. Even after teachers undergo a preliminary eight-week mindfulness training in teacher education or as in-service teacher development, ongoing induction programs for teachers will facilitate the ongoing learning necessary in developing a pedagogy of well-being. For example, mindfulness practice sessions in the school for teachers either before school, at lunch or after school, will continue to support teacher engagement in the process and practice of implementing mindful wellness in the classroom. Integrating mindfulness sustainably into education for the benefit of students also requires a more systemic approach that includes teachers, school leaders, administrators and parents. Figure 10.4 illustrates a number of key stakeholders involved in the process of integrating mindful wellness into education, and a learning framework that describes each avenue. For example, programs for teachers fall under the framework of teacher development, leadership for school leaders, continuing education for parents, and students receiving programs through an integrative curriculum as illustrated in the pedagogy of well-being.

Figure 10.4. Systemic Approach to Enhancing School Wellness

Pedagogy of well-being contributes to a comprehensive movement in education toward the enhancement of student learning, growth and development because it includes a shift in the
way teachers approach teaching, design lessons and units, develop relationships in the classroom and wider school community, engage students, and respond to challenging behaviour. Mindfulness in education has far greater benefit than simply being a technique taught to students, it provides a whole perspective for the way teaching and learning takes place in the classroom. Future research can evaluate whether teacher candidates who undergo their own process of dispositional development in mindful well-being, develop a trajectory toward enacting a pedagogy of well-being, and propensity for being a life-long learner. Research following teachers (who have gone through MBWE) into the classroom can begin to track teacher actions for the purpose of developing an observational checklist that identifies pedagogy of well-being. In further illustrating pedagogy of well-being in action, the final section presents a teacher who exemplifies this approach.

10.2.7 Example of Pedagogy of Well-Being

A key element of the MBWE curriculum, as highlighted in the previous chapter, was our regular guest visit from exemplar teachers who are enacting mindful wellness within their own professional lives. Having a current teacher come into the class demonstrates the movement from theory into practice, giving valuable second-hand experience with regards to a pedagogy for well-being. Over the past three years, the MBWE class has been visited by Dana Chapman, a grade 3-4 teacher, whose work embodies many of the principles we deal with throughout the course. Teacher candidates are often impressed by Dana’s calming presence, and practical approach to teaching. In addition to sharing simple breathing exercises that she uses in the classroom, Dana also shares her general approach to teaching, what she calls “a work in progress” The following is a selection from Dana’s teaching philosophy that she entitles “Learning in Room 12”.

Mindfulness practices are another invaluable component of a high-functioning learning environment. By mindfulness practices I mean things like relaxation and breathing techniques, yoga poses, and visualizations. This is an exciting area in education right now, perhaps in response to the fast paced, highly stimulated environment children are often surrounded by. There is a tremendous amount of research being generated on the impact of mindfulness practices on children’s social, emotional, and academic development. In one article on the topic, the author states: “What we know of effective
learning is that the predominant factor is not merely time on task; it is the quality of attention brought to that task. If our attention is somewhere else, scattered or racing perhaps, we may have little capacity to be present. Paradoxically, we may need to not do for a few minutes to be more available for doing the task at hand” (Hart, 2004).

Incorporating movement, energizers, and mindfulness practices allows us to refocus, increase the learning potential, and maximize our time together.

I would argue the most important consideration in classroom management is the conscious establishment of a poetic heartbeat underlying everything that happens in the room . . . from the aesthetics, to the quiet signals, to the community circle discussions. This simply means that we take the time to notice. We notice the natural environment; we notice the incredible choice of words an author uses; we notice the patterns all around us. Children will go to deep places if they feel safe and if they come to trust that observing, wondering, and questioning are honored.

I believe when we step back and look at the big picture of what education should be in order to better serve the world in which these children are, and will continue to be, contributing members, we acknowledge the importance of literacy and numeracy skills, the necessity of strong problem solving abilities, the need for analysis and contemplation. We know that interpersonal skills are of the utmost importance. And we know that all of these must be part of a young child’s classroom in the present to impact globally in the future.

Pedagogy of well-being includes the disposition of a mindful teacher at the center of the model. A mindful teacher refers to the enactment of mindfulness in a teacher’s daily life, and attention to the multiple facets of students’ development, teaching and learning. This holistic approach bridges the inner curriculum (current initiatives in education that to relate to well-being) and outer curriculum (i.e., math, science and geography). Seeing the outer curriculum through the lens of the inner curriculum shapes holistic learning and development of the whole child.

Dana’s own journey into mindful wellness had begun over seven years prior, while she was in teacher’s college at OISE/UT. Seeking some support for rising incidence of anxiety during her B.Ed program, Dana began taking yoga classes. This was the beginning of Dana’s journey, and since then, she has continued to weave together her personal and professional
learning into her teaching craft. Dana’s path illustrates the process required for developing a pedagogy for well-being, and the comprehensive influence it has on her approach, instruction, and interactions within the classroom.

10.3 Awake in the Classroom: Literacy of Mindfulness

Teachers play a considerable role in the growth and development of children and youth. The MBWE program is founded on the conviction that the well-being of students begins with the well-being of their instructors. Teachers must not only be informed about their various subjects, but also prepared for the broader demands of the classroom. Integrating mindful wellness into teacher education is not going to suddenly stop the many challenges teachers face on a daily basis in the classroom; however, new knowledge, skills, and ways of being developed will enable them to respond at a more sophisticated level. Mindfulness-based training provides teacher candidates with the experience of education for well-being. It underscores the fact that education in the 21st century includes a broader, more holistic curricular base. Teacher candidates who experience MBWE develop a wider vision of teaching that includes education for well-being, and also developed the necessary content knowledge, pedagogical strategies and disposition to enact such an approach.

Mindfulness training in education may result in resistance within a secular public education system. In order to respond to this resistance, we need greater understanding of mindfulness as a psychological construct that acts like a mirror for us to see ourselves more clearly. In Kabat-Zinn’s book, Full Catastrophe Living (1990), he says the following.

"Interestingly enough, there is no God in Buddhism, which makes it an unusual religion. Buddhism is really based on reverence for a principle, embodied in a historical person known as the Buddha. As the story goes, someone approached the Buddha, who was considered a great sage and teacher, and asked him, “are you a god?” or something to that effect, to which he replied, “no, I am awake.” The essence of mindfulness practice is to work at waking up from the self-imposed half sleep of unawareness in which we are so often immersed. (p. 364-5)"
Buddhism is based on a training of mind, which is distinct from western religions that are typically developed on faith. However, this is not an argument for teaching Buddhism, but rather an indication that we should look more closely at Buddhist psychology as a way of understanding mind and human development. Buddhist Psychology points to the importance of training the mind to be calm and clear, and heart to be open; these are competencies that need to be included in how we define an effective teacher. Mindfulness training for teachers is not training in becoming Buddhist, but rather an education in how to become more awake in the classroom.

Mindful awareness, or wakefulness, runs in contrast to automatic or mindless behaviour. Yet, the same systems that are in play when mindless, also enable us to process information unconsciously in performing daily activities such as walking; we are continually operating automatically in fulfilling many of our daily demands. Our ability to function at high levels of proficiency with partial conscious awareness remains a mystery in understanding the complex interaction between brain, mind, body and environment. That said, the high degree of multi-tasking and reliance on automatic processing of information taking place in human behaviour has repercussions when it comes to de-automatizing. Would it not benefit us to become more intentional and present in what one is doing when we want to? We can so easily forget what it is like to be present in the world, and without conceptual constraints automatically framing our ongoing experience. While on meditation retreat, Joseph Goldstein a leader in bringing the teachings of mindfulness to the West in the 1970’s presented an example of a framed picture to help illustrate the distinction between consciousness and perception and the role of mindfulness. Goldstein described the actual picture as consciousness and the frame outlining the picture as perception. Mindfulness helps us see both the picture and the frame. Without mindfulness we are often looking more at the frame than at the picture. Teachers need to be able to walk into the classroom everyday and see the student, and not simply the label the teacher had previously given that student.

A major concern within our current approach to education is that we are conditioning automatic ways of being in the world. Without mindful awareness, we allow our perceptions to guide us – often acting out whatever thoughts float through our mind. For youth and young adults especially, it is rare to be given an opportunity to detect one’s own inner discussions. Mindfulness practice helps us learn how to create space in the mind so that we are able to
respond to our thoughts and emotions instead of simply reacting to their stimuli. Mindfulness, I would argue, is a form of literacy that is integral to our human development. It allows us to read, not by a visual awareness of words on a page, but through an internal awareness of how we are responding to a particular moment or experience. Both reading and mindfulness are forms of knowledge that are achieved through regulating attention and processing information. Mindfulness practices process information cognitively, emotionally and socially – foundational elements for being successful in the classroom and in society.

If we can appreciate the role that reading plays in a person’s life, we can begin to understand the potential that learning mindfulness may also play in a person’s life. Literacy is a primary focus of education as people who are literate are able to survive and thrive in modern society. The potential for children who become literate in mindfulness remains unknown at this point; however early indications and evidence based on adult development suggest those who are mindful experience increased levels of health, happiness and well-being. Dr. Richie Davidson, a world-renowned neuroscientist is widely quoted as saying that by the year 2050, mindfulness exercise will be proven to be just as important to health and well-being as physical exercise. In essence, mindfulness is simply a capacity we all have as human beings – a defining characteristic of consciousness. By cultivating this quality of consciousness, mindfulness plays a unique role in the continual evolution of the human species. Over the past thirty years we have witnessed the growth of mindfulness-based training and its benefits toward health and well-being in adult populations. The next thirty years is on a trajectory toward uncovering the role of mindfulness in education and human development. As mindfulness becomes a more central initiative in education, teachers and students will begin to tap into a vast human potential, and continue to unfold areas of the brain, and capacities of heart and mind that move us forward in our way of thinking, being and acting.
References


Appendices

Appendix A. Study Sample Demographic Information

Table 12.1
Study Sample Demographic Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Sex</th>
<th>Age</th>
<th>Self-reported identity</th>
<th>Level (teachables)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexandros</td>
<td>Male</td>
<td>24</td>
<td>Greek</td>
<td>Junior/intermediate (history)</td>
</tr>
<tr>
<td>Audrey</td>
<td>Female</td>
<td>22</td>
<td>Chinese</td>
<td>Intermediate/senior (biology, math)</td>
</tr>
<tr>
<td>Chandra</td>
<td>Female</td>
<td>23</td>
<td>Persian</td>
<td>Intermediate/senior (biology, math)</td>
</tr>
<tr>
<td>Deborah</td>
<td>Female</td>
<td>37</td>
<td>Caucasian</td>
<td>Intermediate/senior (drama, social science)</td>
</tr>
<tr>
<td>Donny</td>
<td>Male</td>
<td>34</td>
<td>Caucasian</td>
<td>Intermediate/senior (communications, manufacturing technology)</td>
</tr>
<tr>
<td>Dora</td>
<td>Female</td>
<td>40</td>
<td>Greek</td>
<td>Junior/intermediate (drama)</td>
</tr>
<tr>
<td>Florence</td>
<td>Female</td>
<td>29</td>
<td>Caucasian</td>
<td>Primary/junior (general)</td>
</tr>
<tr>
<td>Isabella</td>
<td>Female</td>
<td>27</td>
<td>Greek</td>
<td>Intermediate/senior (biology, chemistry)</td>
</tr>
<tr>
<td>Joel</td>
<td>Male</td>
<td>26</td>
<td>Caucasian</td>
<td>Intermediate/senior (history, politics)</td>
</tr>
<tr>
<td>Kaleb</td>
<td>Male</td>
<td>34</td>
<td>Caucasian</td>
<td>Intermediate/senior (manufacturing technology)</td>
</tr>
<tr>
<td>Leo</td>
<td>Male</td>
<td>23</td>
<td>Polish</td>
<td>Intermediate/senior (biology, math)</td>
</tr>
<tr>
<td>Name</td>
<td>Gender</td>
<td>Age</td>
<td>Nationality</td>
<td>Level</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>-----</td>
<td>-------------</td>
<td>-------</td>
</tr>
<tr>
<td>Lily</td>
<td>Female</td>
<td>33</td>
<td>Chinese</td>
<td>Junior/intermediate</td>
</tr>
<tr>
<td>Luisa</td>
<td>Female</td>
<td>25</td>
<td>Caucasian</td>
<td>Intermediate/senior</td>
</tr>
<tr>
<td>Nadia</td>
<td>Female</td>
<td>35</td>
<td>Italian</td>
<td>Primary/junior</td>
</tr>
<tr>
<td>Nicky</td>
<td>Female</td>
<td>23</td>
<td>Caucasian</td>
<td>Intermediate/senior</td>
</tr>
<tr>
<td>Oliver</td>
<td>Male</td>
<td>26</td>
<td>Caucasian</td>
<td>Intermediate/senior</td>
</tr>
<tr>
<td>Rosa</td>
<td>Female</td>
<td>23</td>
<td>Italian</td>
<td>Intermediate/senior</td>
</tr>
<tr>
<td>Ryan</td>
<td>Male</td>
<td>23</td>
<td>Chinese</td>
<td>Junior/intermediate</td>
</tr>
<tr>
<td>Sal</td>
<td>Male</td>
<td>25</td>
<td>Indian</td>
<td>Primary/junior</td>
</tr>
<tr>
<td>Sarah</td>
<td>Female</td>
<td>23</td>
<td>Caucasian</td>
<td>Intermediate/senior</td>
</tr>
<tr>
<td>Tania</td>
<td>Female</td>
<td>26</td>
<td>Caucasian</td>
<td>Intermediate/senior</td>
</tr>
<tr>
<td>Thanh</td>
<td>Female</td>
<td>42</td>
<td>Vietnamese</td>
<td>Intermediate/senior</td>
</tr>
<tr>
<td>Teresa</td>
<td>Female</td>
<td>25</td>
<td>West Indian</td>
<td>Primary/junior</td>
</tr>
</tbody>
</table>
Appendix B. Participant Recruitment Email

An Evaluation of the Mindfulness-Based Wellness Education program for Teachers-in-Training

“Teacher Stress and Burnout” is a related studies pre-service course designed to provide teacher candidates with knowledge about stress and practical skills for managing it more effectively. Specifically, the course teaches soon-to-be teachers wellness and mindfulness-based meditation skills so that they can effectively cope with the demands of the teaching profession. In order to better understand how this type of training affects teacher candidates in their pre-service program, I have designed a research study to conduct interviews with students who take this course. This information letter will provide you more information about the study and to invite you to participate. The University of Toronto ethics review committee has approved this study.

In each semester over two years, 7 students enrolled in the Teacher Stress and Burnout course will be selected to participate in a 1-1.5 hour interview. The main goal of the interview will be to better understand teacher candidates’ experience in their initial teacher education program specifically relating to their academic learning, practice teaching, and personal well-being after going through the Mindfulness-Based Wellness Education program. After completion of the interview, the researcher may contact you by email to confirm some of the information discussed in the interview. To investigate the long term effects of this training, all individuals will be asked to participate in an additional interview one, two and three years after their first initial interview. Individuals will receive $25 at the completion of each interview they participate in.

It is important for you to know that participation in the study will not impact your final grade in the Stress & Burnout class or any other class at OISE/UT. All final grades for Stress and Burnout have already been submitted to the registrar, and your participation in this study is kept confidential. You may refuse to answer any question or drop out of the study at any time, without consequences to you. You may also withdraw your information from being used in the study up to 3 months after the completion of your interview.

Once the study is completed, all participants will receive a copy of a research brief via e-mail. The results from this study may be used to make teacher education curriculum recommendations, and inform future mindfulness-based courses offered in professional training programs. In addition, the general results of the study (not specific results about any individual who took part) will be presented at conferences and in written publications. If you have any questions about the study, you may contact Geoffrey Soloway, Dr. Jack Miller or contact the Office of Research Ethics at ethics.review@utoronto.ca or 416-946-3273 about your rights as participants.

If you would like to participate in this study please respond by email to Geoffrey Soloway in order to set up an interview. Thank-you for your consideration.
Appendix C. Interview questions

1. What was your past experience with Mindfulness and/or Mindfulness based practices, philosophy before participating in the Mindfulness-Based Wellness Education (MBWE) program?

2. Can you please describe your experience of Mindfulness Training within your Initial Teacher Education program.

3. Did you find your experience learning Mindfulness relevant and/or practical to other aspects of your Initial Teacher Education program? Which ones?

4. Did Mindfulness Training prepare you in any way for your practicum? How so?

5. Did your experience in Mindfulness Training impact you personally during your Initial Teacher Education program? How so?

6. What elements of the Mindfulness Training program did you find most helpful in support of your learning?

6. What elements of the Mindfulness Training program did you find most least helpful in support of your learning?

7. Would you like to share anything else about your experience going through the Mindfulness-Based Wellness Education program in terms of you becoming a teacher?
Appendix D. Example of Teacher Candidate Holistic Lesson Plan Assignment

In one particular lesson, in a grade 9 Canadian geography class on “declining fisheries in Canada”, I was successful in incorporating effectively a holistic approach to teaching that appealed and engaged the entire class.

The lesson began in setting a positive, secure and safe atmosphere by asking the students to sit up straight and de-clutter their desks. I ask them to forget about their stresses, personal agendas and to sit silently and listen to a poem that I had chosen to share with the class. The poem was from a book entitled “Coastlines: The Poetry of Atlantic Canada” by Ross Leckie and it vividly described Canada’s breath-taking Atlantic coastline featuring fisheries. The students were given the chose to either close their eyes and in their minds imagine the landscape or look at the photos that I had prepared in a slide show. The goal of this exercise was to show students that we are related to nature and should be grateful and respect its natural beauty. I believed that this introduction calmed the class down dramatically and captured their interest in the topic.

In the next activity, I took an interactive poll which asked students; how many times they consume fish products daily, weekly and monthly. This class wide poll illustrated to students the relevancy of the fishing industry in their personal lives. Students very much enjoyed this exercise because they were able to express an opinion and have discussions with fellow peers. The aim of this activity was to indirectly show to students that, there is a clear and important interdependent relationship and unity amongst people and the environment. In conducting this activity students were able to see a crucial and fragile relationship between humans and the fishing industry.

In order to examine further the issue of declining fisheries in Canada, students were asked to get into groups of 3-4 in order to complete a graphic organizer. This activity asked students to work cooperatively with one another by communicating, sharing and imparting knowledge from course resources. Students very much enjoyed this activity and learned from one another instead of being told knowledge (liner transmission) by the teacher. In addition, the lesson included students to read and answer questions pertaining to a newspaper article written on a controversial issue regarding “Aquaculture” in Canada. I chose this particular article because it reinforced the important connection and impact humanity has on the environment. To conclude the lesson, I asked students to reflect and write about what they learned, felt and experienced during the lesson and what questions did they still have on the subject.