University of Calgary

PRISM Repository **https://prism.ucalgary.ca**

The Vault Open Theses and Dissertations

2015-09-30

Learning, Breathing and Well-Being: Teachers' Reflections on Pedagogical Possibilities through Mindfulness

Holmes, Kimberley Anne

Holmes, K. A. (2015). Learning, Breathing and Well-Being: Teachers' Reflections on Pedagogical Possibilities through Mindfulness (Doctoral thesis, University of Calgary, Calgary, Canada). Retrieved from https://prism.ucalgary.ca. doi:10.11575/PRISM/26740

http://hdl.handle.net/11023/2569

Downloaded from PRISM Repository, University of Calgary

UNIVERSITY OF CALGARY

Learning, Breathing and Well-Being:
Teachers' Reflections on Pedagogical Possibilities through Mindfulness

by

Kimberley Anne Holmes

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE

DEGREE OF DOCTORATE OF PHILOSOPHY

GRADUATE PROGRAM IN EDUCATIONAL RESEARCH

CALGARY, ALBERTA

SEPTEMBER, 2015

© Kimberley Anne Holmes 2015

Abstract

The inspiration and motivation for this thesis came from my experiences as a student, a teacher and a mother. Through years of involvement with various types of education, I recognized significant problems embedded within the traditional ideologies of school: the fragmented focus of the assembly line model, the disregard of learning that is relevant to personal development, and the general disengagement of the educational process. I also observed increasing mental and physical health issues amongst teachers and students due to workload, class size, and time constraints. In addition, the Alberta government and school boards are recommending complex system changes, and this will require teachers to reflect carefully and mindfully on their current pedagogical praxis. Hence, this research was designed to explore the role of mindfulness in curriculum and learning, as a response to these challenges. I engaged nine educators in an initial interview to discuss their understanding of mindfulness and their use of mindful practices in their personal and professional lives. They then participated in four life writing activities and a final focus group activity. The results were analyzed and interpreted using the Integral model. The findings contributed to an exploration of the possibilities for mindful curriculum and learning. The analysis of findings, based on the combination of the data gathered, the theoretical framework, and the existing literature, suggests a framework for ongoing teacher development in mindfulness.

Acknowledgements

The experiences that shaped this doctoral journey were vast and complicated. I do not believe I can thank all of those who were part of the process but I shall do my best to honor those who helped me along the way. You are all part of the story of my life.

First I must recognize the impact of my family. My two beautiful children Tristan and Jayden were constant reminders of the need to go forth with this work. Our shared lived experiences, their daily reminders not to quit when things get hard, and their undying faith that mom can do anything are what kept the dream alive. My husband Ken who fed me dinner, put gas in the car and took care of the details of life required for survival. And finally, my small dog Rosie, who reminded me twice daily of the importance of going outside to check out the world and find something new to be excited about each time we walked the path.

Next there are all the students and teachers I have had the honor of working with through the many years of this educational journey. They are far too many to name, but each and every one were part of the experience that shaped my thinking and inspired me to go forth. Also I must thank my incredibly supportive network of friends who walked the path with me and contemplated the possibilities. Each and every one of you has been a powerful strand in the making of the whole.

As I began my doctoral journey I sought out mentors to help me on the quest. I was blessed to have a trio of the very best and most brilliant minds, for which I shall always be grateful. Dr. Veronika Bohac Clarke, whose gentle wisdom and deep spirit guided me through the process in a way that allowed me to find the answers when I needed them most. Dr. Sharon Friesen, whose commitment to education is awe-inspiring. Her ability to face the challenges of our current educational paradigm in a mindful and caring way is one I seek to model in the

future. Dr. Carl Leggo, my poetic muse and the inspiration to my heart. He taught me how to find my voice, my story, and my soul. To these guides on this journey I pledge to take forward all that I have learned and continue the quest. The work has only just begun.

On all journeys we find kindred spirits that help us navigate the obstacles along the way. Dr. Deborah Bearance and Kara Sealock, my classmates and confidants, thank you for sharing the pathway. We held each other up, shared each other's tears and braided together the strands of our unique yet unified stories. I look forward to many more years of sharing, learning and growing with you as we bring this work forward.

As this chapter comes to a close, I am already writing the pages of the next...

Seek and together we shall find our way

May we long continue to hold the faith

Recognizing the power of the human spirit is endless

With poetry, peace, gratitude and grace.

Table of Contents

Abstract ii

Acknowledgements iii

List of Figures and Tables xv

Chapter One: Introducing the Topic, the Questions and the Researcher 1

Introduction of the Topic 1

The Background of this Study 3

Definition of Mindfulness Guiding this Study 4

The Research Problem 8

Conceptual Framework: The Integral Model 9

The Research Questions 10

Research Design 11

Research Methodology 12

Research Participants 12

Data Sources and Collection 13

Interpretation of Data 14

Limitations and Delimitations of the Study 15

Limitations. 15

Delimitations. 15

Assumptions 15

Significance of the Study 16

Researcher's Life History as a Contribution to this Study 16

Organization of the Thesis 18

Conclusion 20

Chapter Two: Using the Literature to Contextualize the Topic and the Research Questions ... 21

Table 1. Literature review areas in the Integral Model framework 21

The Concept of Praxis Informing this Literature Review 21

Mindfulness and the Self 25

Mindfulness as Awakening 26

Mindfulness as Self Realization 30

The Mindful Teacher 35

The Power of Mindful Holistic Learning 37

Table 2. Integral Model as a Framework for the review of the literature. 39

Mindfulness and Learning Science 39

Emotion, Learning and Mindfulness 43

Table 3. Integral Model as a Framework for the review of the literature. 47

Mindfulness and Storytelling 47

History of the Word, Language and Community 52

Autobiographical Storytelling as a Means for Personal Reflection and Understanding 54

Storytelling and Wellness 55

Personal Understanding, Wellness and the Building of Community 57

Table 4. Integral Model as a Framework for the review of the literature. 61

Mindfulness as it Relates to System Understanding 61

Review of Alberta Education's *Inspiring Education* Policy 67

Table 5. Integral Model Framework Applied to the Three E's 69

Table 6. Summary of the Principles of Inspiring Education in the Integral Model 72

Mindful Teaching and the Review of the Teaching Quality Standards Policy 74
Table 7. Teaching Quality Standards in the Integral Model *75*
Review of Calgary Board of Education Results for Student Achievement Policy.....76
Table 8. Calgary Board of Education results for student achievement *77*
Review of The University of Calgary Undergraduate Education Program Policy.....78
Table 9. The 12 principles of initial teacher education in the Integral model. *79*
Table 10. Semesters of the B.Ed program summarized through the AQAL quadrants......*80*
Conclusion.....81
Chapter Summary.....85
Chapter Three: Conceptual Framework and Methodology.....86
Introduction 86
Wilber's Integral Model and AQAL Framework.....87
The Quadrant as the First Organizing Element of AQAL 89
Table 11. Research Questions in the Integral Model Framework (Wilber, 2000, 2006) *91*
Levels, Lines, States and Types.....92
Integral Methodological Pluralism (IMP).....93
Explorations of Narrative Inquiry as Research Methodology.....93
Research Methodology Quest.....94
Seeking the Stories.....96
My Autoethnographical Reflections.....99
Life Writing – Autobiographical Reflections for Human Recovery 102
The Research Methods in the Integral Framework 104
Methodology and Research Participants.....105

Table 12. Research Methods and Data Collection Point Summary.....*107*

Lived Experience Data from the Life Writing.....108

Data Analysis for Developing Themes.....109

Conclusion.....112

Chapter Summary.....114

Chapter Four: Findings – Exploring the Participants' Stories.....115

Understanding the Research Process.....115

The Use of a Personal Research Journal for Reflection and Inquiry.....118

Introduction of the Participants.....122

Backgrounds of the Participants.....122

Table 13. Background of the participants and their current school contexts......*123*

Integral Life Writing on Mindfulness in Curriculum and Learning.....128

Life Writing 1: Personal Journey to Mindfulness.....128

Participants' Responses to the Life Writing 1 prompt.....130

Figure 1. Emerging themes and patterns on the personal journey to mindfulness......*137*

Life Writing 2: Teachers' Use of Mindfulness in their Classrooms.....137

Participants' Responses to the Life Writing 2 Prompt.....138

Figure 2. Emerging themes and patterns regarding the use of mindfulness in the classroom......*144*

Life Writing 3: Impact of Current System Directions and Policies in the Classroom.....146

Participants' Responses to the Life Writing 3 prompt.....147

Figure 3. Emerging themes and patterns regarding the impact of current systems directions and policies in the classroom......*152*

Life Writing 4: Using Storytelling for Learning Community and Professional Development 153
Participants' Responses to the Life Writing 4 prompt 155
Figure 4. Emerging themes and patterns exploring storytelling, learning community and professional development. *158*
Final Focus Group: Participant Feedback Regarding the Life Writing Process 159
Considering the Life Writing Process as a Tool for Reflection and Research 160
Participants' reflections and comments on life writing and the research experience 166
Summary of Focus Group Reflections on the Research Process 166
Figure 5. Mindmap summarizing the key themes of the final focus group. *167*
Chapter Summary 168
Chapter Five: Interpreting, Understanding and Connecting the Stories 169
Using the AQAL Framework to Understand the Life Writing Themes 170
Table 14. Mapping the Research Questions onto the AQAL Quadrants *172*
Summary of Interview Themes on Narrative and Mindful Practice 173
Table 15. Interview themes on the use of narrative inquiry and mindful practice in the Integral Model *174*
Summary of Interview Themes of the Participants' Personal Definitions of Mindfulness and the Role of Mindfulness in Teaching and Learning 174
Table 16. Interview themes on mindfulness and the role of mindfulness in teaching summarized in the Integral Model. *175*
Summary of Interview Themes on Mindfulness, Health, Wellness and Brain Development 176

Table 17. Interview themes on the interior and exterior perspectives on health and wellness. *176*

Summary of Themes from Initial Interview Questions 177

Life Writing 1: Personal Journey to Mindfulness – Analysing the themes in the Upper Left (UL) Quadrant 177

Personality Traits 177

Life Experiences 179

Mental Health 183

Mindful Strategies 185

Overview of the Themes of Life Writing 1 188

Table 18. Summary of Life Writing 1 themes into the upper left quadrant of the Integral Model *189*

Life Writing 2: Teachers' Use of Mindfulness in their Classrooms – Analysing the Themes in the Upper Right (UR) Quadrant 190

Understanding the Need to Breathe and Calm Down 190

Focusing on the Individual Learner and Her Specific Needs 193

Curriculum as Lived Experience 197

Being a Teacher of the Heart 199

Overview of Themes from Life Writing 2 Combined with Life Writing 1 201

Table 19. Overview of themes from Life Writing 2 combined with Life writing 1. ..... *202*

Life Writing 3: Impact of Current System Directions and Policies in the Classroom – Analysing the Themes in the Lower Right (LR) Quadrant 202

Responses to the factory model of education 204

Summary of the Theme of the Factory Model System 207
Curriculum and Content Demands 207
The question of Time and Rapid Pace 211
Summary of the Question of Time and Rapid Pace 213
Push/Pull Between the Classroom Level, School Level, District and Provincial Level 214
Summary of the Theme of Push/Pull Between the Classroom Level, School Level, District and Provincial Level 217
Summary of Key Themes Presented in Life Writing 3 217
Table 20. Summary of the themes into the Lower Right Quadrant of the Integral Model 218
Life Writing 4: Using Storytelling for Learning Community and Professional Development – Analysing the Themes in the Lower Left (LL) Quadrant 219
Sharing Knowledge 220
Teachers' understanding of their own personal stories and the roles that they play 222
Reflections and Self care 223
Table 21. Summary of the life writing themes into the Lower Left Quadrant and completing the Integral framework analysis 227
Analysis of Themes from the Final Focus Group Questions 228
Teacher Self Understanding 228
Stress Reduction and Teacher Wellness 229
Creation of Community and Potential for Professional Learning Communities 230
Teacher Personal Engagement in Understanding the Work of the System. 231
Chapter summary 232

Chapter Six: Discussion – Integral mapping of themes and their connections to mindfulness 233
Introduction 233
Connection between mindfulness and personal and professional development (UL) 235
Connection Between Mindfulness and Current Brain Research (UR) 236
Connection Between Mindfulness and Current System Direction (LR) 238
Connection Between Mindfulness and Storytelling (LL) 240
How Well do the Findings of this Study Address the Research Problem and its Related Assumptions? 242
Table 22. Mapping the research findings onto the AQAL quadrants *243*
Implications for professional development, work in the field, and pre-service education programs 245
Table 23. Mindfulness through Integral Life Practice for Teachers (MILPT). *246*
Limitations to this Study and Recommendations for Future Research 247
Time 247
Experience Level of the Research Participants 248
Locations of Research Participants 248
Use of the d2l Platform 248
Familiarity with the Life Writing Process 249
Importance of Establishing a Community of Learners 249
Exploration of the Full Potential of the Integral Model 250
As noted earlier in this thesis, the "quadrant" is the most basic element of the Integral model. As the acronym AQAL implies, the two foundational components of the model are

the quadrants and the levels. Beyond this basic infrastructure, it is also important to remember that the elements “lines”, “states” and “types” provide additional depth to the model. In order to use the Integral model to its full potential, sufficient time and resources are needed, and this implies the use of research teams. A future extension of this research should begin with the inclusion of “levels”, which would enable the researcher to fully describe the perspectives of the participants as well as the contexts in which they operate. Next, every attempt should also be made to include “lines”, which would shed further light on the participants’ capacities to incorporate mindfulness into their praxis. 250
Recommendations for Practice.....250
MILPT Integration into Personal and Professional Development.....250
Mindful Teachers Incorporating their Learning into Curriculum Implementation 251
Recommendations for Theory Development.....251
Exploring the Connections Between Mindfulness and the Learning Sciences for Both Teachers and Students 251
The Link Between Health Care and the Humanities 252
Summary of Considerations for Research, Theory and Practice.....252
Concluding Remarks: Researcher’s Reflections on the Mindfulness and its Possibilities in Education.....253
References.....256
Appendices.....268
Appendix A: Recruitment letter Distributed to Teachers Interested in Mindfulness 269
Appendix B: Recruitment Procedures for Research Participants 270
Appendix C: Call for participants in a Research Study.....271

Appendix D: Participant Consent Form 272

Appendix E: Initial Interview Questions 275

Appendix F: Life Writing Assignment Guide 278

Appendix G: Final Focus Group Questions.....280

Appendix H: Summary of Participants' Responses about Mindfulness, Health, Wellness and Brain Development 281

Appendix I: Summary of Participants' Personal Definition of Mindfulness and the Role of Mindfulness/Wisdom Traditions in Curriculum and Learning.....283

Appendix J: Summary of Participants' Use of Narrative Inquiry and Mindful Practice..286

List of Figures and Tables

Figures

Figure 1. Emerging themes and patterns on the personal journey to mindfulness. 137

Figure 2. Emerging themes and patterns regarding the use of mindfulness in the classroom.. 144

Figure 3. Emerging themes and patterns regarding the impact of current systems directions and policies in the classroom..... 151

Figure 4. Emerging themes and patterns exploring storytelling, learning community and professional development..... 157

Figure 5. Mindmap summarizing the key themes of the final focus group..... 166

Tables

Table 1. Literature review areas in the Integral Model framework 21

Table 2. Integral Model as a Framework for the review of the literature..... 39

Table 3. Integral Model as a Framework for the review of the literature..... 47

Table 4. Integral Model as a Framework for the review of the literature..... 61

Table 5. Integral Model Framework Applied to the Three E's..... 69

Table 6. Summary of the Principles of Inspiring Education in the Integral Model..... 72

Table 7. Teaching Quality Standards in the Integral Model 75

Table 8. Calgary Board of Education results for student achievement..... 77

Table 9. The 12 principles of initial teacher education in the Integral model. 79

Table 10. Semesters of the B.Ed program summarized through the AQAL quadrants. 80

*Table 11. Research Questions in the Integral Model Framework..**Error! Bookmark not defined.***

Table 12. Research Methods and Data Collection Point Summary 107

Table 13. Background of the participants and their current school contexts..... 123

Table 14. Mapping the Research Questions onto the AQAL Quadrants 170

*Table 15. Interview themes on the use of narrative inquiry and mindful practice in the Integral Model.....**Error! Bookmark not defined.***

Table 16. Interview themes on mindfulness and the role of mindfulness in teaching summarized in the Integral Model..... 173

Table 17. Interview themes on the interior and exterior perspectives on health and wellness. 174

*Table 18. Summary of Life Writing 1 themes into the upper left quadrant of the Integral Model. .....**Error! Bookmark not defined.***

Table 19. Overview of themes from Life Writing 2 combined with Life writing 1..... 199

Table 20. Summary of the themes into the Lower Right Quadrant of the Integral Model..... 216

Table 21. Summary of the life writing themes into the Lower Left Quadrant and completing the Integral framework analysis 225

Table 22. Mapping the research findings onto the AQAL quadrants 241

Table 23. Mindfulness through Integral Life Practice for Teachers (MILPT). 243

Chapter One: Introducing the Topic, the Questions and the Researcher

Introduction of the Topic

As a young girl I refused to color in the lines and often felt dismayed when forced to learn in the same way and fashion as all the other children. I realize now that my teachers were subscribing to the *factory model* of education, dispensing fragmented bits of knowledge which made little sense to me as a child seeking an understanding of the whole. The factory model of education, with its emphasis on standardization, emerged during the late 19th and early 20th centuries as a by-product of the industrial society it served. At the turn of the century, this standardized system, with its standard curriculum, "provided an accessible, uniform model of education that met the needs of the masses at that time" (Friesen & Jardine, 2009, p. 4). With its hierarchical, bureaucratic and highly segmented components, the factory model did not meet my needs and instead forced me into a tightly fitted box, stifling my imagination and creativity. Creativity and thinking were not the domains of the worker I was being trained to become. I was expected to take my proper place amongst the masses doing what I was told to do. As a result, school became like a suffocating crate I vowed to break out of.

When I was no longer the student but the teacher, I continued my silent war against a system demanding compliance and following the doctrine of efficiency where "students and teachers are not required to be thoughtfully engaged in teaching and learning" (Friesen & Jardine, 2009, p.11). While others struggled with grammar checklists and spelling lists, my students and I shared our hopes and dreams, which led us into a deeper understanding of the literature and our interconnected role with the text and our world. My students were engaged in the classroom, understanding their personal stories based on their own reflections and considerations. This caused me to reflect and wonder about "the place of stories and narratives in

understanding curriculum or doing curriculum research" (Aoki, 1991, p. 250). In a deeply ethical way, my learners understood themselves, their connection to others, and their interconnected roles on earth as a "curriculum as lived" (Aoki, 1986/1991, p. 160). My students also did very well on their provincial examinations, as they knew how to think authentically about their human experience. We engaged in authentic intellectual work "as the construction of knowledge, through the use of disciplined inquiry, to produce discourse, products or performance that have value beyond school" (Newmann, Bryk & Nagaoka, 2001, p. 14). My students understood the literature and the language as

> not a fixed or ideal form, but an evolving medium that we collectively inhabit, a vast topographical matrix in which speaking bodies are generative sites, vortices where the matrix itself is continually being spun out of the silence of the sensorial experience. (Abram, 1996, p. 84)

Together, we learned mindfully and authentically about the interconnected web of our shared humanity and I began to understand the critical importance of being present and paying attention.

My own children's arrival into the school system demanded that I pay even more attention to this topic. My happy, bright boys rapidly transformed into frustrated and angry children, as the school system buried them in worksheets and rote memorization. Their individual gifts and talents were largely ignored as the system strove to standardize their skills and personalities. In response, they fought back to find their own free space. Yet, "free spaces are rare and hard won, and learning to live well within them is hard work that requires stillness, generosity and perseverance" (Jardine, 2012, p. 8). There was no room for their free space, no room for reflection or mindfulness, and this absence of contemplative room took a mental and physical toll on my children. Upon seeing their frustration I could no longer ignore the call to

explore mindfulness in our professional practice, the call to open up free spaces within which we all can learn in our own individual ways.

The Background of this Study

My professional experience as a teacher, and as an *Alberta Initiative for School Improvement (AISI)* system learning leader, has shown me a schooling system that is becoming more disconnected and fragmented. Our instructional leaders need to find a common understanding of complex issues around curriculum and learning. Teaching is an integral practice (Wilber, 2000, 2006) which cannot be encompassed by mastering teaching techniques. As a system instructional leader, I realized the vast complexities of our current knowledge society. In the past, significant learning moments and theories have defined pedagogical practice, however, current brain research (Czikszentmihalyi, 1993; Damasio, 2010; Davidson et al, 2012; Doidge, 2007; Immordino-Yang & Damasio, 2007) and a move towards well-being (Jardine, 2012; Jones, 2009; Ross, 2011; Seidel, 2006; Siegal, 2010) is inviting educators to take time to reflect on the self, on the process, and on the connection to the whole. Reflection requires mindfulness. Alberta Education is moving in a new direction, as articulated in *Inspiring Action on Education* (Alberta Education, 2010), which focuses on inspiring engaged, ethical and entrepreneurial citizens. These citizens will need to be "learning the landscape", which requires, "a network of connections that link one's present location to the larger space" (Bransford, Brown & Cocking, 2000, p. 139). The education system will need to be "more flexible and able to respond to the diverse learning needs of students" (Alberta Education, 2013, p. 5). However, in contrast to this optimistic new vision in education, teachers are feeling increasingly fragmented and suffering high burn out rates as a result of the intensifying demands of the teaching profession (Jardine, 2012; Jardine, Clifford and Friesen, 2006; McKinnon, 2009; Smith, 1999).

These pressures have resulted in an erosion of the wellness of both teachers and students. As McKinnon (2009) states,

> It appears that the whole personhood of educators and students are at risk of becoming diminished as they are rarely addressed in a balanced manner within the school system—due, in part, to the school system's perceived need to quantitatively justify their existence to the culture's stakeholders. (p. 3)

Many teachers are exhausted and unable to see what could be possible, as "they and their students are already overburdened and don't need something added to the mix of expectations. They are exhausted, worn out, caught in what is experienced as an ever-acceleration rush of one thing after the other" (Jardine, 2012, p. 9). There is a need to create time and spaces for reflection and contemplation, to create what Jardine (2012) refers to as a "pedagogy left in peace" (p. 1). There is a need for mindfulness if we are to encourage authentic learning. This authentic learning has the potential to sponsor "significant intellectual accomplishments that have utilitarian, aesthetic, and personal value" (Newmann, Bryk & Nagaoka, 2001, p. 15).

This study seeks to give voice to the experiences of mindful teachers, exploring mindfulness and how it may be incorporated into their curriculum "as lived experience" (Aoki, 1986/1991, p. 159).

Definition of Mindfulness Guiding this Study

> Smith (1999) considers the Sanskrit word *upaya* with regards to teaching praxis:
>
> In Sanskrit, there is a word *upaya,* used precisely to describe the teaching style of an Awakened One. Literally it refers to "skill in means, or method." It also has the connotation of "appropriateness", of knowing exactly what is required in any specific instance. Students under the tutelage of one who is awake often find the teacher to be a

> bundle of contradictions, because what is said to one may be completely reversed in instructions to another. This is because the teacher understands the unique needs and capacities of each, honouring their differences, and knowing what is best for each. (p. 20)

MacDonald and Shirley (2009) reflect on the concept of a mindful teacher as;

> A form of teaching that is informed by contemplative practices and teacher inquiry that enables teachers to interrupt their harried lifestyles, come to themselves through participation in a collegial community of inquiry and practice, and attend to the aspects of their classroom instruction and pupils' learning. (p. 4)

Inspiring Education cites as the goal of effective education the creation of a learning context wherein each learner receives what she needs, when it is required, with "each learner starting and ending on different points" (Alberta Education, 2010, p. 26).

For the purpose of this study a mindful practitioner is defined as a professional who understands the importance of *being present* and paying attention, and who can reflect on the needs of each individual student in order to personalize learning. It is the assumption of the researcher that mindful practitioners understand the living, breathing heart of authentic learning.

An exploration of mindfulness and its effects on the well-being of both the learner and the teacher requires an understanding of the underlying ideologies. My original purpose was to try to touch upon something that lies deep within our hearts, our capacity for embracing the present moment, often in ways that seem impossible under our current complexity of educational demands, in ways that are healing and transforming. My call to mindfulness was a quest for healing. This healing is part of an individual's ability to take a larger perspective, which aligns directly with Wilber (2000, 2006, 2008) and the exploration of the Integral Model. The different perspectives allow us to pay attention in a particular way; on purpose, in the present moment and

non-judgementally. These are all the seedlings of mindfulness and need to be carefully cultivated via focused practice and commitment.

Mindfulness is a skill that can be developed through practice and, over time, can become a way of being. Our experience of life is always changing, which is why it is critical that we are aware of the present moment and why mindfulness is a powerful concept with regards to education. Mindfulness requires us to pay attention to the here and the now. Kabat Zinn (1990) defines mindfulness operationally as "the awareness that arises by paying attention on purpose, in the present moment and non-judgementally" (p xxxv).

This ability to be present without judgement is connected to our ability to feel empathy and compassion for others. As Kabat Zinn (1990) reflects, "it is important to keep in mind what we mean by heartfulness. In fact, in Asian languages, the world for *mind* and for *heart* are usually the same" (p. xxxv). The "heart of wisdom" (Chambers, Hasbe-Ludt, Leggo & Sinner, 2012, p. xxxv) is indeed a rich site of knowing and being. When we are mindfully aware, without judgement, we are better able to observe and understand the content and habits of our mind, including the shadow aspects.

From a physiological perspective researchers at Massachusetts General Hospital and Harvard University have found changes in different structures of the brain associated with learning and memory, emotional regulation, the sense of self and perspective taking. We are beginning to understand that certain regions of the brain respond to mindfulness meditation training, a phenomenon known as neuroplasiticty (Kabat, Zinn, 1990, p. xii). Hence, mindfulness practices allow a shift from our amygdala—a region that is responsible for appraising and reacting to threat—to our higher functioning pre-frontal cortex, which allows for higher level thinking, empathy and compassion (Davidson, et al, 2012; Siegel, 2010; Immordino-

Yang & Damasio; 2007). This neuroplasticity, showing direct connections to mindful practice, is highly significant to the work in the learning sciences.

Mindfulness is based on our ability to pay attention moment to moment without pre-determined judgement. It is not simply being silent but being present and aware. It is the ability to shut down the chatter of the mind and focus on the here and now to see what naturally arises in the open spaces of possibilities. When we are able to obtain this state of inner reflection, awareness, insight and compassion naturally arise as the brain actually changes the way that it processes information. The focus on the perspective of the "I" shifts to a deeper understanding of the interconnections of the whole picture. In the terms of the Intergral Model, perspective shifts from the upper left interior individual perspective to the lower right exterior collective perspective. The upper left perspective involves the inner experience of the educator while the lower right involves the more complex systems response, which is a more complex combination. Mindfulness does not allow us to actually change the situation, but to change our response to it based on our understandings of the current reality and the different perspectives. It is our response to the complex conditions of our lives that impact our holistic wellbeing. This is in contrast to contemplation, where we consider the possibilities. In mindfulness practices, the challenge is not to think, not to consider, not to contemplate, but simply to be. It is the ability to just wait in the present moment and allow the portals of new learning and ways of being in the world to appear. In our current educational paradigm, the ability to think outside the traditional narrative of education and consider new perspectives and possibilities from each unique lens is critical to the well-being of teachers, students and the system as a whole.

The Research Problem

The problem statement guiding this study is "What is the role of mindfulness in curriculum and learning?" Many secondary classrooms in Alberta today are filled with students who are disconnected from their subjects, their teachers, and each other. At the same time, Alberta Education calls on teachers to teach differently, to engage the learners and thereby to co-create knowledge with their students. Mindfulness appears to be the element of teaching, which could reconnect students, teachers, and learning.

Mindfulness may be a more effective way for teachers to cope with the "tensionality that emerges, in part from an indwelling between two curriculum worlds: the worlds of curriculum-as-plan and curriculum as lived experiences" (Aoki, 1986/1991, p. 159), than the currently prevalent frenzied race to reach achievement expectations. This lack of mindful presence is taking a toll on teacher and student wellness and is in a sharp dichotomy with *schola,* the Latin world for leisure and the root of this place we call school. The strategy of mindfulness involves "clearing the garbage of one's mind so that the mind can actually function freely to engage in what is necessary to be done in any particular situation" (Smith, 2012, p. xiv).

Ironically, teachers, preoccupied by multiple expectations and continuing changes to their practice, are often unwilling to consider new approaches to pedagogy that might in fact make their lives easier. As stated by Jardine, Clifford and Friesen (2006) teachers have legitimate reasons for feeling overburdened;

> add this to school board level expectations, varying and sometimes unreliable administration support, worsening economic conditions, decreased funding, larger and larger classes, student apathy and disengagement, increasing diversity and difference in the classroom, a proliferation of 'special needs' and ever increasing urgent realms of

> paper work, and we have a deep mire that makes quite sensible and sane the retraction from what can only be believed as a false sense of abundance.

Teachers in secondary schools particularly find themselves coping with "too much stuff to do", with anxiety-ridden students, working in a fragmented, anxiety producing environment. Such an environment distracts the teachers from creating the mindful practice, which would allow them to be 'present'.

Teachers need to find a way to connect the perceived separated strands and bring wholeness back into their practice by reflecting on their own ontologies and on the educational contexts in which they teach. Mindfulness may help teachers to become focused observers and to "cultivate a detailed understanding of the circumstances, ideas, images and assumptions we have often unwittingly inherited, so that when those ghosts rear up, we don't arrive at them unprepared" (Jardine, 2012, p. 20).

Hence, the purpose of this research is to investigate the role of mindfulness in curriculum and learning to determine how it could address the fragmented world of today's classrooms.

Conceptual Framework: The Integral Model

Ken Wilber's Integral model (2000, 2006) will be used as the conceptual framework for this study. To examine and undertake research in such a diverse discipline as education requires a framework with the capacity for the consideration of the vast knowledge base and perspectives. The Integral model is a framework that provides a map for this study. "This map uses all the known systems and models of human growth—from the ancient shamans and sages to today's breakthroughs in cognitive science" (Wilber, 2006, pg. 7).

The Integral model served a trifold purpose for this study. First it allowed for the examination of the current literature in four areas of explorations which inform the research question. Secondly,

it served as a conceptual framework for the research design. Finally, it provided a framework for the interpretation of data and final analysis. The basic structure of the Integral model is composed of the four quadrants, which are described as four fundamental perspectives on mindfulness based on an intersection of two dimensions: singular/plural, and inside/outside. The intersection of these dimensions creates the four quadrants: Upper Left (UL) *interior individual*; Lower Left (LL) *interior collective*; Upper Right (UR) *exterior individual*; and Lower Right (LR) *exterior collective*. These four perspectives, taken together, present valuable insight into the interconnected whole. As Wheatley (1992) reflects, "the survival and growth of systems that range in size from large ecosystems down to tiny leaves are made possible by the combination of key pattern or principles that express the system's overall identity and great levels of autonomy for individual system members" (p.11). There is significant power in being able to see the interconnectedness of the big picture and the use of this framework identifies multiple perspectives to inform the data. As Wilber (2006) states, "in short, the Integral approach helps you see both yourself and the world around you in more comprehensive and effective ways" (p. 8). Through the use of this framework, the researcher hoped to develop a broad based comprehensive understanding of *the role of mindfulness in curriculum and learning.*

The Research Questions

The research problem guiding this inquiry is: What is the role of mindfulness in curriculum and learning? The research questions guiding the inquiry are:

1. How do teachers personally define mindfulness? (UL)
2. How do teachers incorporate mindfulness into their curriculum design? (UR)

The following sub questions will be considered with regards to the interpretation of the data.

1. In what ways can storytelling be used to build a common vision in a learning community? (LL)

2. How do mindful teachers understand current system policy and how do they communicate it to others through narrative? (LR)

Research Design

This research focused on the personal narratives of nine teachers in order to explore the role of mindfulness in curriculum and learning through storytelling. Hasebe-Ludt, Chambers and Leggo (2009) reflect on this process of researching autobiographical stories in a search for meaning:

> While the autobiographical stories may not carry the full meaning nor reveal original causes, every clue of these creation stories is a clue to the meaning we seek in our own lives, in the lives of others and the world in which we live. (p. 44)

By exploring teaching and learning narratives, the researcher and the participants worked together to gain insight into the relationship between mindfulness, curriculum and learning. The ancient art of storytelling is a traditional way of learning and making sense of our world. As Fowler (2006) reflects on the power of a narrative story to make meaning,

> Stories seduce; they build desire –to know what happened, to watch who, to visual where and when, to make meaning about how, and to more deeply understand why. (p. 6)

Stories offer us a portal to that deeper level of understanding as "our narratives, poems, and meditations are echoes whose vibrations are like lines of connection that guide our practice" (Hasebe-Ludt, Chambers & Leggo, 2009, p. 4).

Research Methodology

This study employed narrative inquiry (Bamberg 2006; Clandinin 1992, 1996, 1990 and 2000; Fowler, 2006; Leggo, Chambers and Hasebe-Ludt 2009; Richardson 2007) to explore the research questions. The nine participants engaged in journaling, using Life Writing methodology (Leggo, et al. 2009) to explore their philosophy and practice of teaching and learning. Data were analyzed for themes and patterns, with a second level of analysis exploring their relevance to improving professional practice. The Integral model (Wilber, 2000, 2006) will be used as the conceptual framework, in the interpretation and analysis of data.

Of key interest to this study are the works of Hasebe-Ludt, Chambers & Leggo (2009) on Life Writing:

> We write in various life writing genres such as memoir, poetry, poetic prose, rumination, story, journal, personal essay, and letters; we work with mixing these genres, and through their blending as well as the interweaving of our individual texts we produce and how we ourselves are constituted in particular locations. Each one of us has a distinctive voice… (Hasebe-Ludt, Chambers & Leggo, 2009, p. 7)

In this study the stories of teachers in the field were braided together, allowing for multiple modes of engagement, representation and expression.

Research Participants

The research participants were nine teachers interested in exploring mindfulness through autobiographical writing or creative story sharing. The participants were recruited through a variety of settings. Participant selection was based on the following criteria:

1. Teachers in their first five years of professional service at an accredited school board

2. Teachers who expressed an interest in mindfulness from a personal and professional perspective
3. Teachers interested in exploring mindfulness through autobiographical writing or creative story sharing (Life Writing)
4. Teachers who expressed an interest in mindfulness from a spiritual, physical, emotional and cognitive lens (holistic wellness)
5. Teachers who were part of a staff exploring student learning
6. Teachers who expressed an interest in working with a collaborative learning community in order to come to deeper understandings of *the role of mindfulness in curriculum and learning.*
7. Teachers who have used mindfulness in their teaching praxis

Data Sources and Collection

The nine participants engaged in an initial interview. They then participated in four life writing experiences exploring the key areas of the research question. The teacher life writing submissions were the primary data used for interpretation. The final data collection point was a focus group.

1. Initial interviews with teachers to establish the context of the research, the requirements of the participants and the desired outcomes.
2. Life writing as an exploration of personal stories. This was done online. The online platform also allowed for different ways of representing their stories. There were four data collection points, and upon each written submission the researcher responded and reflected data back to the participants to confirm the validity of the interpretation:

(a) *Teacher Life Writing #1:* Personal journey to Mindfulness. How do you personally define mindfulness based on your life story? (Upper left quadrant)

(b) Teacher Life Writing #2: How do teachers incorporate mindfulness into their curriculum design? Specifically how do you use mindfulness in the classroom context? What does it mean to your own professional practice and your teaching? (Upper right quadrant).

(c) *Teacher Life Writing #3:* How does the system impact mindfulness? What role does current system directions and policies play in determining your day to day activities in the classroom context? (Lower right quadrant)

(d) *Teacher Life Writing #4:* What is the role of storytelling in mindfulness? Reflect on whether and how storytelling could be utilized to build a common vision in a learning community and to facilitate teacher professional development and learning (Lower left quadrant)

3. Final focus group questions: teachers reflect on their personal and professional journeys, on mentoring, and on the implications for professional development

Interpretation of Data

The participants' stories were analyzed to reveal common themes. The interpretation of the themes was grounded in the concept of the braiding together of life writing, for "when immersed in the act of writing and braiding we are distinctly aware how juxtaposing and mixing our narratives create a new text that is stronger and more complex than our individual stories" (Hasebe-Ludt, Chambers & Leggo, 2009 p. 7).

Limitations and Delimitations of the Study

Limitations.

1. Nature of self-report: the researcher had no control over the extent to which the participants were telling the truth.

2. The participants' professional commitments limited their time to engage in the research process.

Delimitations.

1. The methodology itself, narrative inquiry, requires a small number of participants.

2. There is vast literature around the topic of praxis and mindfulness, and I have chosen to focus on the four sections defined by the quadrants of the Integral model.

Assumptions

1. Authentic learning requires critical reflection.
2. Reflection and mindfulness is a process that requires time.
3. Teachers acquire mindfulness over time if they are aware and motivated.
4. Mindfulness is required to come to higher understandings and deeper learning.
5. Storytelling is a way to make sense of the learning process: "The key to making sense is what researchers came to call a 'life narrative'—the way we put this story into worlds to convey it to another person" (Siegal, 2011, pg. 172).
6. Current brain research supports the use of storytelling to increase the development of neural pathways in the brain.
7. Storytelling and language is a traditional way to transmit culture and wisdom from one generation to the next.
8. Storytelling can build community

9. Storytelling can be used as a research methodology for a professional learning community.
10. Storytelling can be used as a research methodology to explore mindfulness, curriculum and learning

Significance of the Study

The teaching profession has a high burnout rate and many members are suffering physical illness as a result of the increasing stress and demands of the profession. According to research done by The Alberta Teachers' Association (2012):

> Teachers in the focus group reported that their jobs often left them feeling "overwhelmed" and "exhausted." Some even remarked that they felt guilty because they were unable to do any one facet of their work to the best of their ability. They were particularly troubled when the competing demands left them feeling that they had short-changed their students.

As Brookfield (1995) reflects, "our continuing inability to control what looks like chaos becomes to our eyes evidence of incompetence. The need to break this vicious cycle of innocence and blame is one reason why the habit of critical reflection is crucial for teachers' survival" (p. 1). It is an assumption of the researcher, that critical reflection is a component of mindful praxis as "critically reflective teachers can stand outside their practice and see what they do in a wider perspective" (Brookfield, 1995, p. 16). Critically reflective, mindful practitioners can see the entire landscape, which allows for deeper understanding and a stronger formulation of the teaching praxis.

Researcher's Life History as a Contribution to this Study

As a researcher, I need to be able to reflect on the present and past conditions that have brought me to the research question. Our lives, and our life experiences, urge us to find answers

for pressing problems, to find solutions where none seem to be accessible or available. Chang, Ngunjiri & Hernandez (2013) state, "Auto-ethnography as a research method enables researchers to use data from their own life stories as situated in sociocultural contexts in order to gain an understanding of society through the unique lens of self" (p. 18). My autobiographical lens—my own story—has fuelled the desire to understand the nexus between mindfulness, curriculum and learning. It is my love of literature, language and words that has brought me to the method of story telling and the methodology of narrative inquiry. My frustration with systems broken down into fragmented pieces has driven me to a deeper understanding of the importance of the whole. I have reached the conclusion that we research who we are. We cannot educate others about what we do not understand ourselves. My own journey to mindfulness and its emotional and physical outcomes are a key part of this research. Our ontology shapes our understanding of our methodology and forms the root of our praxis. My own ontology, my sense of Being and understanding of the world, has formulated this framework and this understanding of curriculum and learning. I cannot separate myself from that experience as it is my Essence and my core, and it guides and shapes all that I do. The steady flow of my own breath guides the process. Through many years of yoga study, including the study of Ashtanga practice in Mysore, India, I have learned how to control my mind by watching my breath. I used the asana practice as a tool to tame the body and observe the mind. Thus, I learned how to be present and pay attention as a yogi.

My role as the researcher is as one of many threads being woven in a complex pattern. I am only one experience but that strand is an integral part of the greater whole. My experience illustrates how I have been guided to this place and found this question, and I have been immersed in this story in many ways. Through my teaching experiences, my role as a mother,

my yoga studies and the erratic patterns of my own breath, the need to understand my own story through critical reflection has pressed upon me. I am a part of this narrative: my history and my voice are interwoven with the voices of those around me, for "the ethnographical life is not separable from the Self. Who we are and what we can be—what we can study, how we can write about what we can study—are all tied to a knowledge system itself and to its methods for claiming authority over both the subject matter and its members" (Richardson and Adams St. Pierre, 2007). This knowledge system is part of the interconnected whole, a whole that I seek to more fully understand.

This is a collective story, woven within the strands of a complex tapestry of teaching, learning and becoming fully human. I am a strand in the tapestry. I hope that within this study, through the weaving of our stories, we shall find wholeness in the teaching practice and bring all stakeholders together as a collaborative learning community, as "stories are not about people and cultures 'out there'—ethnographical subjects or objects. Rather, they are about ourselves—our workspaces, disciplines, friends and family" (Richardson & Adams St. Pierre, 2007). Wherever we find humans we shall also find their stories. Each day a new possibility and perspective presents itself and as a researcher I must always be open to the process. We have moved far beyond the instruction model of pedagogical practice into a world of reflection and contemplation, a world that is open to a variety of possibilities as unique as the makeup of each individual learner and each individual brain. It is a move towards being able to freely color outside of the lines and be present to the current moment.

Organization of the Thesis

This thesis explores the stories of nine teachers with regards to mindfulness, curriculum and learning. Chapter One provides the overview of the research design. Chapter Two comprises

the review of the literature selected in order to provide breadth as well as depth of scholarly context for this study. The introduction begins with an exploration of the concept of *praxis* and an overview of the Integral model. As a researcher, I am aware there is vast literature around this topic and I have chosen to focus on the following four sections in this particular study: in the first section the concept of mindfulness and the Self is explored. In the second section an exploration of current learning science is considered with reference to the epistemological knowledge required for effective teaching and learning. The third section considers storytelling and the role that it takes in history, teaching and learning and the building of community. The final section consists of an overview of current system realities: Alberta Learning, Calgary Board of Education Results statement, U of C teacher pre-service training programs and other current professional development programs in the field with regards to the requirements for teaching in the province of Alberta.

Chapter Three outlines the research methodology and conceptual framework that is best suited to this question. It then explores the concept of narrative inquiry. Finally, this chapter shows how narrative inquiry, specifically life writing, could be used as research methodology for professional development.

The reader will also note throughout the work my own autobiographical reflections inserted into the body of the dissertation. As this work is deeply connected to my own story and lived experience, my reflections add cohesiveness to the literature review and the understanding of the research methodology. These inserts, written in first person narrative and poetic verse, also allow the reader to understand my lens and what motivates my passionate commitment to researching and teaching in this particular way. Chapter Four introduces the participants and presents findings from the life writing and focus group activities. Chapter Five presents the

analysis of themes. Chapter Six connects the themes to the Integral model framework and discusses the implications for research, practice and theory.

Conclusion

In this chapter the context and the design of the study were introduced. The study focused on understanding the relationship between mindfulness, curriculum and learning, using the Integral model as a conceptual framework for the research design and the analysis of findings. This research project involved nine teachers who engaged in life writing around four writing prompts, as well as participating in a final focus group activity. This chapter concluded with an outline of the organization of the thesis.

Chapter Two: Using the Literature to Contextualize the Topic and the Research Questions

My intent was not to provide an extensive review of all the literature that can be considered for such a complex question, but to identify intersecting areas of study that I believe are key with regards to curriculum and learning.

With this aim, the literature review explores four key areas related to teaching and learning, as framed through the Integral model (Wilber, 2000, 2006), focusing on the question 'what is the role of mindfulness in curriculum and learning?'

The literature review begins with an introduction of the concept of praxis, and an overview of the Integral model as the conceptual framework. Following this introduction, the chapter unfolds in four thematic sections, all relating to the topic of mindfulness and curriculum and learning. The four sections are, (1) mindfulness and Self, (2) mindfulness and learning science, (3) mindfulness and storytelling, and (4) mindfulness and systems complexity, as outlined below.

Table 1. Literature review areas in the Integral Model framework

Upper left – Interior Individual - Subjective ***Mindfulness and Self (I)***	***Upper right – Exterior Individual - Objective*** ***Mindfulness and Learning Science (It)***
Lower Left – Interior Collective – Intersubjective ***Mindfulness and Storytelling (We)***	***Lower Right – Exterior Collective - Interobjective*** ***Mindfulness and Systems (*Its)**

The Concept of Praxis Informing this Literature Review

For the purpose of this study, praxis is defined as a process by which a theory, lesson or skill is enacted, embodied or realized. Thinkers that have informed this definition are: Freire

(1970), Plato (1906), Socrates, and Aristotle. Freire (1970) metaphorically compares educational systems to business conducted at a bank. For Freire, education is compared to the proceedings of a bank where knowledge in the hands of the instructor is to be handed out as desired, or withdrawn, and then returned to the instructor upon demand, or deposited, to prove acquisition of knowledge. Many teachers, across cultures, today still practice the conventional instructionist pedagogical practice where information is something to be transmitted to and then regurgitated by learners. This practice renders education a passive process, devoid of meaning and authenticity, where the learners' lived experience is not considered or honoured in the process.

Freire (1970) describes the current praxis as 'the pedagogy of the oppressed'. He states that in the banking model, students are treated as receptacles for knowledge that comes from the instructor, meaning that they are not given free orientation to their own ideas. As a direct outcome of this process, critical thinking is stifled as students are taught to disassociate their educational experience from their intellectual development. In contrast to the banking model, a liberating pedagogy with a more holistic perspective can help destroy the forces of de-humanization that are institutionalized by a certain mode of education practice. It is this holistic perspective that is at the heart of this research study, for it is the assumption of the researcher that a holistic understanding is a part of mindful teaching praxis.

According to Freire (1970) "education is suffering from a narration sickness" (p. 57) where students articulate and memorize instruction strongly disconnected from their own lived experience. Knowledge is a given, not to be questioned but simply to be learned in fragmented pieces, disconnected from the greater whole of the study of humanity. Steele (2011) reflects on what teachers do from a Canadian lens:

> What we do as teachers mostly is about ensuring that students are able to give correct answers to very specific sorts of questions. We are beholden to ensuring that our students have worked their way successfully through a given curriculum and we measure their success at doing so by how they answer our questions, as well as the questions of our provincial masters. (p. 1)

Up until June 2013, the province of Alberta imposed provincial achievement tests at grade 3, 6, 9 and 12 for which teachers were accountable. Currently these tests are being replaced gradually by a different form of assessment for grades 3, 6, and 9, which, while still standardized, will better inform student learning at the beginning of the year. The current tests will remain for grade 12 students. According to the Alberta Education website (Alberta Education, 2012), the purpose of the achievement testing program is to:

- Determine if students are learning what they are expected to learn
- Report to Albertans how well students have achieved provincial standards at given points in their schooling
- Assist schools, jurisdictions, and the province in monitoring and improving student learning

As the greater goal is to improve student learning "careful examination and interpretation of the results can help reveal areas of relative strengths and weakness in student learning. Teachers and administrators can use this information in planning and delivering relevant and effective instruction in relation to learning outcomes in the *Programs of Study.*" (http://education.alberta.ca/admin/testing/achievement-results.aspx). However, often these tests are not used to plan instruction but as a final evaluation of student learning and an assessment of teacher effectiveness. There is a difference between assessment for learning and final

assessment, which is contradictory to the vision of supporting student learning. In the past, the provincial achievement exams distracted most teachers from developing a mindful praxis, as their focus became the exam itself and not the process of learning. When education is broken down into discrete, measurable bits, it is lost forever from the holistic understanding, and both students and teachers fall victim to the evaluation. It is the assumption of the researcher that a move away from standardized assessment is a move towards mindfulness.

Freire (1970) points to both the oppressed and the oppressor as contributors to the outcome of the banking model. A learner who remains passive and unquestioning, will never reach a higher level of understanding. When teaching within the "banking model" teachers take the role of the oppressor, which students often passively accept. Freire's pedagogy describes the liberation of the learners, who had been conditioned to believe that they have no role to play in their own learning. In contrast to the "banking model" teachers need to connect students to knowledge by way of their lived experiences, to personalize their learning to fit their individual needs. We can replace the static, information based model with one that explores problems contextualized within the lived experience of being human. By making the learning relevant and directly connected to the lived experience of the learner, teachers are no longer passively disseminating information to learners but engaging in meaningful dialogue.

The development of the four quadrants is based on these explorations of the concept of praxis. Self (UL) is a component of self- reflection involving the understanding of one's inner Being. Storytelling (LL) enables us to understand our own experiences, and to share that understanding with others in order to build a stronger learning community. Knowledge is found within the self and within the learning community. This communal focus is in strong contrast to the "banking model" where knowledge only comes from the instructor. In storytelling

communities, knowledge and the interpretation of that knowledge becomes a collaborative shared inquiry.

This research has added the considerations of current learning science (UR) and system policy direction in the province of Alberta (LR). Hence for this research, praxis will be considered with regards to the four quadrants of the Integral model (2000).

Mindfulness and the Self

> *Before one can really begin to research and understand the world, one needs to take the sacred journey from the head to the heart. To find one's true heart, or Essence, the journey needs to go inward to the Self. As a doctoral student I was much like the spiritual seeker, trying to find the pathway to the acquisition of wisdom, a pathway filled with rough roots and rocky cliffs that seemed insurmountable at times. This journey took many twists and turns from intensive yoga studies, to long runs in the park with a small dog reminding me to slow down and pay attention, to frantic ambulance rides with my son while he struggled to breathe. Each of these pathways screamed out for me to recognize the critical importance of the slow and steady breath and the role that breath plays in the sustaining of life. I realize now that much of my path was blocked by fear, for "what we fear, we repress, and what we repress comes back over and over to haunt us, in our dreams, in our compensatory actions, until the day comes when we can no longer run away from it, and have to make friends with it, and embrace it as part of what sustains us" (Smith, 1999, p. 23). The Universe keeps repeating messages to us until we slow down and really listen to what needs to be heard and understood.*
>
> *Much of what I sought to learn was not found within the confines of the Academy but deep within my own soul as I journeyed between my head and my heart desperately struggling to link the pieces in some sort of framework that showed the connectivity. It was a battle between my spirit and my logical mind, the artist and the scientist, as each fought for supremacy. I was seeking the one right answer that I truly believed would solve this complexity I was immersed within. But there was no right answer emerging, only a battle within my own Being. I realized that, "to find myself, I have to lose myself, otherwise death comes in the most vainglorious guise, death by a thousand achievements that that leave me isolated in the cage of my own subjectivity, bereft of the companionship of the world" (Smith, 1999, p. 25). The first step of this long and complicated journey was inward, seeking the Self and sometimes becoming very lost in the process.*
>
> *It was an assignment for a graduate class that inspired my quest for self, a paper that asked me to explore the concept of Self-Realization. The words tumbled from my fingers to the keyboard often awash in an ocean of tears. My heart broke into many pieces as I recognized the essence of my story, and that paper turned into what I now honor as the first quadrant of the Integral Model or the "I". It was the beginning of my*

> *own awakening, my own coming to an understanding of the complexities of my life. I stopped practicing yoga as a type of "yoga-cize" and truly began to be present and mindfully pay attention to what has heart and meaning, focusing on understanding the slow and steady flow of my breath. I began to pay attention to the journey as "Journeys have a way of finding our pathways. Whether sought or circumstantial, each journey shapes how we walk in the world" (Meyer, 2003, p. 11).*

Mindfulness as Awakening

The Sanskrit word *upaya,* which informs the definition of mindfulness for this research, describes the teaching style of an Awakened One. An understanding of this *upaya* is essential to the exploration of the role of mindfulness in curriculum and learning. Smith (1999) reflects, "in terms of contemporary pedagogy, we can see the way that *upaya* refutes any systematic approach to instructional conduct, making possible an opening of a much fuller range of expression on both the part of the teacher and the student" (p. 20). *Upaya* is a sharp juxtaposition to the standardizing factory model in that "the interest of the [upaya] teacher is not to teach, in the usual sense of imparting well-formulated epistemologies" (Smith, 1999, p. 20), but rather to strive to recognize and protect the unique conditions under which each individual student can find his own way. It is the mindful process of slowly awakening to an

> understanding of how pedagogical confidences learned in one's teacher training may have only limited application in the face of any classroom's true complexity; and that dealing with that complexity requires not yet another recipe for control, but precisely the opposite, namely a radical openness to what is actually happening therein, in the lives and the experiences of both students and oneself, and an ability to deal with it somehow on its own unique terms. (Smith, 1999, p. 22)

This approach involves the willingness to face oneself and others in a mindful and heartfelt manner, recognizing that we are all interconnected strands of a vibrant and thriving learning community. It requires the ability to be silent, to be still and face our heart of darkness, to

recognize our fears and to begin the deep and complicated journey of awakening to the Self. To achieve this self-awakening a teacher must take an inner journey, for, "to be a teacher...requires that I face my Teacher, which is the world as it comes to meet me in all of its variegation, complexity and simplicity" (Smith, 1999, p. 24). Facing the entire world and recognizing what it has to offer allows one to face the Self. At this point one understands that her face is always reflected in the faces of others, and thus she is one with all kind and recognizes the interconnectivity of all other Beings on our planet. As Smith (1999) reflects on this process, "by facing those whose faces have been burned by the fires of life, seeing myself in them, I become more fully human, more open and generous, more representative of this real thing we call Life" (p. 24). It is this thing called Life that we seek to understand in our educational contexts, that we try to address through our curriculum as "the situated image of the live(d) curricular experiences of teachers and students" (Aoki, 1996, p. 418). Self-awakening is a slow process that requires time for consideration and reflection, and results in a loss of fear as "the teacher who is awake has recovered themselves from the snares and entrapments of the Self and Other thinking, now accepting all others in a way a very young child does, trusting the world as being the only world there is, engaging without fear" (Smith, 1999, p. 25). Self-awakening also involves the recognition of beauty, for, "when we can sincerely recognize the beautiful qualities of other people, it is very difficult to hold onto our feelings of anger and resentment" (Thich Nhat Hanh, 2009, p. 73). Someone who has awakened sees the beauty of Life in each moment, and transcends fear. The awakened Being is then in turn able to inspire this same type of insight in others, encouraging them towards mindfulness and grace, as "the Buddhist tradition links the stillness, wisdom and openness to the need for deliberate, difficult practice in concert with others who are devoted to this pursuit" (Jardine, 2012, p. 19).

An awakened teacher mindfully understands the Self. This understanding is critical in our current educational context, for "this may be a particularly appropriate historical moment from which to take the dynamic of journeying—leaving home, healing, coming home wiser, more sane and generally compassionate—and applying it to the generalized condition of our lives" (Smith, 1999, p. 2). We require a type of healing in our educational systems, and need to emphasize empathy and compassion as essential components to learning. There is an urgent need to synthesize the fractures of the factory model as "the need in the West for a new kind of spirituality is quite urgent...a kind of spirituality that is simpler, truer, and having its own integrity" (Smith, 1999, p. 3). This is a type of spirituality that is achieved by stopping all action and paying attention, towards the creation of "a space where one is generally free to engage the world openly and without pre-judgment" (Smith, 1999, p. 4). One needs to be open to and present in the current context, releasing all pre conceived ideas and concepts of the past. This is a type of inner peace, a mindful awareness, which allows for a new type of engagement with the world.

Siegel (2011) reflects that, "without preconceived ideas or judgements, this mindful awareness, this receptive attention, brings us into a tranquil place where we can be aware of and know all the elements of our experience" (p. 92). This tranquil place or this "pedagogy left in peace" (Jardine, 2012) "entails cultivating a detailed understanding of the circumstances, ideas, images, assumptions and desires we have often unwittingly inherited" (p. 20). A detailed understanding is acquired through deep reflection and an understanding of the interconnectivity of our world. In this respect, mindfulness is also about rationality. Kabat-Zinn invites us to ask, "*how are we in relationship with everything,* including our own minds and bodies, our thoughts and emotions, our past and what transpired to bring us, still breathing, into this moment—and

how we can learn to live our way into every aspect of our life with integrity, with kindness towards ourselves and others, and with wisdom" (Kabat-Zinn, 2013, p. xxxvii). The awakened teacher, as a result of her own Ontology, is able to encourage learners to develop their own passions, for "the practice of mindfulness (smrti in Sanskrit) leads to concentration (Samadhi) which in turn leads to insight (prajna). The insight we gain from mindfulness meditation can liberate us from fear, anxiety and anger, allowing us to be truly happy" (Thich Nhat Hanh, 2009, p. x). This insight results from a type of personal journey that involves going inward to the Self and then outward to the communities and systems that we are a part of, and as "their identity expands they become aware that they are part of a much larger whole" (Siegel, 2011, p. 76). It is an inner journey that takes us to "a place deep within us that is observant, objective and open. This is the receptive hub of the mind, the tranquil depth of the mental sea" (Siegel, 2011, p. 93). Here we encounter a place of tranquility and peace allowing for the awakening to begin. Smith (1999) reflects on this journey to awakening with regards to Buddhism:

> in Buddhism, a Bodhisattva or Enlightened Being is one who, after attaining insight into the nature of reality, goes back to his people to help them with their struggles. The most basic purpose of going on a journey, then, is the very ordinary one of learning to be at home in a more creative way, in a good way, a healthy way, a way to be tuned to the deepest truth of things. (p.2)

This journey for the deepest truth of things, which teaches us to be at home in a more creative way, is at the root of authentic curriculum and learning. The creative process involves a type of "journeying –leaving home, healing, coming back home wiser, more sane, and generally compassionate—and applying it to the generalized condition of our human lives" (Smith, 1999, p. 2). These sane and compassionate Beings are self-realized: they truly recognize who they are

as breathing living beings, each playing a role in the interconnected world. Kabat-Zinn (2013) reflects on mindfulness as "much more about *being*—about allowing yourself to be as you already are, and discovering the fullness and vast potential within such an approach" (p. xxii). As Siegel (2010) reflects, "without preconceived ideas or judgements, this mindful awareness, this receptive attention, brings us into a tranquil place where we can be aware of and know all the elements of our experience" (p. 92).

Mindfulness as Self Realization

In pedagogical practice teachers are always seeking to inspire growth in learners. Impactful teaching requires teachers to gain clarity of mind. Siegal (2011) refers to this process as *mindsight.* He reflects that "mindsight emerges as our communication—with others and with ourselves—helps us reflect on who we really are and what is going on inside of us" (p. 31). We seek to find a way to live in our present moment, in our current reality, and understand the complexity of the process in which we are engaged. Cszikszentmihalyi (1993) says that learning to control the mind is "a greater priority for survival than seeking any further advantages the hard sciences could bring" (p. 28). He goes on to explain, "to live an entire life without understanding how we think, why we feel the way that we feel, what directs our actions is to miss what is most important in life, which is the quality of experience itself" (p. 29). In education we strive to create engaged and ethical citizens though relevant and meaningful learning experiences. As Friesen & Jardine (2009) reflect on this process, "we are always educating for a world that is or is becoming out of joint, for this is the basic human situation, in which the world is created by mortal hands to serve mortals for a limited time as home" (p. 5). Through various educational models, such as traditional learning centres, art based learning, and inquiry science, educators are all seeking to understand epistemology and what it means to practical pedagogical practice.

These models represent attempts to find the balance between what Aoki (1986/1991) refers to as the "tensions that emerge, in part, from the indwelling in a zone between two curriculum worlds; the worlds of curriculum as plan and curriculum as lived experience" (p. 159). Exploring the curriculum as lived experience requires an understanding of Self and our role on this planet. When we have achieved this understanding of Self through our own personal journey, then we are in a position to help others with their struggles. As Smith (1999) reflects on this idea of the mindful teacher's journey with regards to Buddhism, "A Bodhisattva or Enlightened Being is one who, after attaining insight into the nature of reality goes back to his people to help them with their struggles" (pg. 2).

The quest to understand the Self has deep historical roots in a diversity of cultural contexts. The desire to know and to understand our purpose of existence is a common quest of our humanity. As Abram (1996) reflects, "one's individual awareness, the sense of relatively personal self, or psyche, is simply that part of the enveloping Air that circulates within, through and around one's particular body; hence one's own intelligence is assumed, from the start, to be entirely participant with the swirling psyche of the land" (p. 237). Our awareness and our earth are interconnected.

The process of trying to understand the Self and our role in life is central to ideologies concerned with learning to control the mind. The sage Patanjali explores this in *The Yoga Sutras.* In the first chapter he writes "Yogaschittavrittinirodhah," meaning, Yoga is the channelling of the fluctuations of the *citta* (the mind, ego and intellect). Learning to control our mental condition is the essence of yoga. In the west we have taken up the process of yoga as a type of "yoga-cise," but this limited exploration of the physical asana practice neglects the deeper application of traditional yoga. Yoga goes far beyond standing on one's head: yoga involves the

process of venturing into the inner world of the mind and the breath. The word yoga is a Sanskrit term derived from the root "yuj," meaning to yoke or harness. Thereby, true yoga can be viewed as the process of harnessing the mind in order to unite the body, mind and spirit. It is a discipline used to create harmony with the individual self, and to create the connection to a greater Universal self which then unites with the Universe as a whole. Yoga creates union: whether within a single person, between two people, or amongst many people, the practice of yoga should bring people together by creating deeper understanding, compassion and acceptance.

The search for self-realization is often seen as a quest that needs to be undertaken by a seeker. Joseph Campbell (1949) calls this the "hero's quest" and asks us to "follow our bliss." This bliss is the quest to find the Holy Grail, the meaning of life and ultimately happiness. The hero's journey, the monomyth, refers to a basic pattern found in many narratives around the world. It is the key genre of our essential literary questions and the guiding light that shines to help us search for wisdom and an understanding of our human story. The "follow your bliss" philosophy can be traced back to the Hindu Upanishads, as "the Hindus believe that the divine being already lives within the secret cave of our hearts and that we are much more than we know" (Ross, 2011 p.17). It is often a key theme, or essential question, explored in literary texts through the ideology of happiness, knowledge, insight and Enlightenment, all of which begin with the recognition of the wisdom of the heart.

In educational contexts, because "so much of our conscious experience with learning is an activity that has been assigned to us—a parent, a teacher, an employer, someone that we are competing against—learning for many of us is a means to an end that is not of our choosing. We go through a learning process in pursuit of a goal that we have been told is important" (Vaill, 1989, p. 31). Learning to understand the Self needs to be a process of being, of becoming

something or someone. For, "while knowledge and skills are necessary, they are insufficient for skillful practice and the transformation of the self" (Dall'Alba, 2009, p. 1). This transformation demands self-exploration and deeper understanding of the interconnected complexities. This is why the concept of self- realization is difficult to distil into a single definition and is not often explored in Western educational curriculum.

Palmer (1998) argues that the western educational curriculum has, since the time of Enlightenment, evolved to privilege logic and mind above the emotions and the heart. Math and science are often seen as the dominant discourse whereas humanities and the arts are the often dispensable cousins. Yet to cultivate an understanding of Self would require the development of these softer skills, which facilitate a type of emotional and social intelligence. Goleman (1990) describes four elements of emotional intelligence: self-awareness—the ability to decipher one's emotions and recognize their impact; self-management and the control of one's emotions as well as being able to adapt to different circumstances; social awareness—the ability to sense, comprehend and react to the emotions of others while understanding social networks; and relationship management, which is the ability to inspire, influence and develop others while managing conflict. The acquisition and cultivation of these emotional intelligences will, according to Margaret Wheatley (2002), restore hope for the future.

> And it is how we can restore hope for the future. It is time for us to notice what is going on, and to think about this together and to make choices about how we will act.… Are we able to live a life that has meaning for us? (p. 66)

Educators need to explore the emotional world in addition to the cognitive world. We need to seek the link between the cognitive, the emotional, the social and the physical. The emotional world is essential to our survival and "in a sense it can hijack the cognitive one because it

evolved first and is therefore more fundamental" (Goleman, 1995). Siegal (2011) reflects on the process of "losing our mind" from the scientific perspective of the physical brain: "The middle prefrontal cortex - the region that calms the emotionally reactive lower limbic and brainstem layers - stops being able to regulate all the energy being stirred up and the coordination and balance of the brain disrupted" (p. 26). When the balance of the brain is disrupted, the journey becomes complicated and the hero comes to a turning point, seeking an epiphany. Here the journey to awakening begins, and we need to turn inward for answers.

Our main quest in life is to find a space of happiness when we are completely absorbed in the present moment. Czikszentmihalyi (1993) refers to the idea of *flow*. Flow is characterized by complete absorption, involvement and enjoyment of the process or activity, and also leads to the development of *memes.* A meme acts as a unit for carrying ideas, culture and practices, and can be transmitted from one mind to another. They are cultural analogues to genes and, just as genes evolve and pass from generation to generation, so do *memes*, as "the information contained in memes is not only passed on through chemical instructions on chromosomes, but through imitation and learning" (p. 87). Czikszentmihalyi (1993) sees this process of evolution as having both a biological and an environmental base, consisting in a dance between who we are when we are born and how our world shapes and redefines us. The goal of education is to create engaged and ethical citizens capable of reflection on their world. We need to develop our *memes* to allow us to positively awaken and reach a place of self-realization. If the goal of education is to bring harmony into one's life and the lives of others, it is important that teachers come to a deeper understanding of Self in order to facilitate this process in others. As Smith (1999) reflects, "there is so little time to find one's original face, because every space is seen to require some sort of instructional intervention" (p. 24). Yet perhaps it is not a standard intervention that is required

but “a pedagogy left in peace that entails cultivating a detailed understanding of the circumstances, ideas, images, assumptions and desires we have often unwittingly inherited, so that when these ghosts rear up, we don’t arrive with at them unprepared” (Jardine, 2012, p. 20). The process of going inward and cultivating mindfulness requires time and is not completed with a checklist of scheduled tasks. Yet efficiency has still been given a priority and, “even in medicine, the rush to interventional practices often gets in the way of natural healing and a true pedagogy of suffering” (Smith, 1999, p. 24). The suffering and the passion are all part of the journey and are critical components of the emotional element of learning and teaching. One wonders about the role of emotion in authentic teaching and the need for intense passion in achieving greatness. Are great teachers in essence passionate artists who have discovered for themselves what it is that lies at their Essence? What is the significance of a/r/tography (Irwin & Cosson, 2004) and rendering the self through art-based inquiry? Are mindful teachers not only teachers but also artists and researchers? If *memes* are constantly evolving and changing is it possible to “develop” individuals’ teaching potential through the sharing of the stories of strong teachers who are functioning in an awakened state?

The Mindful Teacher

MacDonald and Shirley (2009) explore the concept of *mindful teaching.* Mindful teaching is not a program or a *how-to* cookbook, but a reflective practice that allows time for insight to develop:

> It is a form of teaching that is informed by contemplative practices and teacher inquiry that allows teachers to interrupt their harried lifestyles, come to themselves through participation in a collegial community of inquiry and practice, and attend to aspects of their

> classroom instruction and pupils' learning that ordinary are overlooked in the press of events. (p. 4)

Mindful teaching invites educators to slow down and pay attention to what has heart and meaning. In today's classrooms, children "have virtually no time to simply dream, wait, think, ponder or learn to be still" (Smith, 1999, p. 24). Free spaces for authentic learning and contemplation need to be opened up and kept clear so that "our lives can be shaped with some graciousness and mindfulness" (Jardine, 2012, p. 11). This process can only happen if we allow the time and space in our classrooms for breathing and growing to be nourished.

> Although mindfulness may not be very powerful in the beginning, if you nourish it, it will become stronger. As long as mindfulness is present, you will not drown in your fear. (Thich Nhat Hanh, 1991, p. 54)

How do mindful teachers overcome the fear of failure and instead show their students how our obstacles in life can allow us to grow and become stronger? What process is involved in the exploration of the darker sides of the Self, "these Other sides of my face I must face too, if I want to be a teacher, or more accurately if pedagogic authority is to flow out of me in the manner of the world's upholding, in a way that reveals the deepest truth about the world rather than acting against it" (Smith, 1999, p. 23). Facing the Self goes far beyond the obtainment of a teaching certificate and learning specific teaching techniques. It is grounded firmly in the ability to be still, which allows mindfulness to find its role in curriculum and learning.

To develop engaged and ethical learners we need to create more space for life in our educational contexts. We need to learn to live in the present moment, and address the current complexities and realities that surround us. We need to honor and experience the emotion and the passion of these complexities, and allow reflective time to understand them:

> in the condition of stillness, it becomes possible to hear new sounds, or old sounds in a new way; appreciate tastes once numbed out by old habits of taste; see a child, spouse, partner, parent, in a way that honors them more fully, instead of constrained by the usual fears, desires and projections" (Smith, 1999, p. 21).

This mindful practice has strong connections to current brain research, as "during an experience that feels life threatening, the flood of stress hormones and our internal state of terror can shut down the hippocampus" (Siegel, 2011, p. 184). The hippocampus plays an important role in long and short term memory and is critical to the learning process. In contrast to the strong *fight or flight* response, mindfulness can bring us happiness and joy. We need to nurture this seed of mindfulness within us, taking care to water it and allow it to flourish.

> The seed of mindfulness is in each of us, but we usually forget to water it. If we know how to take refuge in our breath, in our step, then we can touch our seeds of peace and joy and allow them to manifest for our enjoyment. (Thich Nhat Hanh, 2009, p. x)

Mindful teachers have a type of wisdom that "involves an understanding of how each child brings to the classroom a different life story with its own particular ways of proceeding to meet the world" (Smith, 1999, p. 9). Each child has their own unique roots and grows according to their own particular strengths.

The Power of Mindful Holistic Learning

The mind and body are not separate things and they need to be in harmony if we are to grow and learn. Learning to breathe, to deal with emotions, and to understand our interconnected role on this earth is necessary if we are to cultivate understanding and wisdom. The role of the teacher is critical in this process. As Siegel (2011) reflects, "The presence of a caring, trusted

other person, who is attuned to our internal world, is often the initial key to widening our windows of tolerance" (p. 138).

Children live in a complex world, fraught with increasing demands and complexities. A mindful approach to life is necessary to allow them to breathe and grow. Without time and energy devoted to creating open space, we shall crash under a storm of prescribed learning objectives. In many ways, less is so much more in terms of teaching and learning. Education needs to focus on helping learners find their passions, which requires time for reflection and exploration towards the understanding of the Self. We need to seek a condition of stillness if we are to see the world in a new and different way:

> In the condition of stillness, it becomes possible to hear new sounds, or old sounds in a new way… One begins to understand how pedagogical confidences learned in one's teacher training may only have limited application in the face of any classrooms true complexity; that dealing with that complexity requires not yet another recipe for control, but precisely the opposite… (Smith, 1999, p. 22)

This stillness allows us to see new things, new possibilities and be open to the potential of the process. As Tich Nhat Hanh (1991) reflects on the process of mindfulness, "Practicing mindfulness enables us to become a real person. When we are a real person, we see real people around us, and life is present in all its richness" (p. 22).

The process of becoming fully human is at the essence of mindfulness. It is highly significant that we take time to reflect, to contemplate, and to breathe, for "as we reacquaint ourselves with our breathing bodies, then the perceived world itself begins to shift and transform" (Abram, 1996, p. 63). The transformation of Self is at the core of effective curriculum and

learning, making it so that "a new engagement with the world may be possible, one that is more friendly, honest and true" (Smith, 1999, p.5).

Table 2. Integral Model as a Framework for the review of the literature.

Upper left – Mindfulness and Self (I)   The practice of mindfulness (*Smrti* in Sanskrit) leads to concentration (*Samadhi*), which in turn leads to insight (*prajma).* The insight we gain from mindfulness meditation can liberate us from fear, anxiety and anger, allowing us to be truly happy. (Thich, Nhat Hanh, 2009, p. x)

Mindfulness and Learning Science

A scholarly inquiry into mindfulness in education would not be complete without raising the question of scientific evidence. This question is consistent with the Upper Right (exterior individual) quadrant. From my own experience, intuitively I expected that measurable or observable physical evidence ought to exist to demonstrate the effects of mindfulness on the brain, emotions, behavior and learning performance, however, I was not excessively confident at the start of my literature search in this area, that I would find credible scientific studies, which would demonstrate this. The word "mindfulness" implies the existence of the mind, which is still a contested concept in the scientific community. As Bohac Clarke (2012, p. 145) noted,

> The interaction of mind, brain, 'person', and spirituality with its subjective and undefinable nature is variously discussed, disputed, and dismissed in debates among neuroscientists, neuropsychologists, and philosophers (de Waal, 2009; Damasio, 1999; Bennett, Dennett, Hacker & Searle, 2007; Dennett, 1998, 2003).

When I found the work of Richard Davidson, I was pleased for two reasons: it provided the evidence that was indeed credible and scientific, and it helped me understand about the effects of mindfulness training on my own son.

> *My son Tristan, who was critically ill a few months into first grade, in essence lost his ability to speak and write language after his hospitalization. He simply stopped talking and his story was trapped deep within his body, causing various forms of physical illness. I researched for years trying to understand what happened to him when he was in ICU with tubes down his throat and his voice silenced. I worked as a literacy specialist studying reading and the brain, the process of reading and writing, and the areas of the brain involved. Tristan struggled significantly with school as he was filled with anxiety and much of his time was devoted to memorizing. Memory belongs to the hippocampus and "under highly stressful conditions, the flight-fight-freeze response floods the body with the hormone cortisol, a chemical that has been shown to block the hippocampal function" (Siegel, 2011, p. 157). These rote memory tasks were impossible and this child was riddled with nightmares and stress, refusing to sleep. We spent hours with psychologists, neuropsychologists, neurologists and other specialists, but Tristan remained a silent enigma trapped in his night terrors and unable to move forward. Many hours of careful observation, contemplation and connecting the dots were required to understand the details of this plot. It reached a climax when he began to have full grand mal seizures, which coincided directly with the fall return to school and an increased level of anxiety.*
>
> *We have recently learned that he has temporal lobe epilepsy. This epilepsy is either inherited (of which we have no genetic link, and hence was not considered earlier) or brought on by an illness or virus. This was the epiphany as all the pieces started to make sense. Tristan's seizures occur in the left temporal lobe which is home of both the amygdala and the hippocampus. With this type of epilepsy memory is a key concern as is language processing. As an English teacher my portal to his soul was language and his physical brain could not work this way. His language was buried deep within some inner cavern of his mind and inaccessible to my probing, hence I needed to discover another portal to learning. The mindfulness research shows reference to th**e** hippocampus and the amygdala in essence "healing" which fuelled my desire to understand the relationship between the humanities and wellness. We found that breathing exercises, singing bowls and drama games actually changed the magnitude of the seizure activity. Yes we still required drugs and clinical intervention, however we were able to work some things out by simply being present and paying attention. By controlling the breath we were able to control the response of the physical body. A seizure is caused by increased electrical activity in the brain and our Universe is an interconnected whole of energy.*

On a metaphysical level, we were trying to change the level of energy that was impacting the physical functioning of his brain to allow his language to return to him so he could share his story and begin to heal his spirit.

I am a storyteller but I am also a healer of sorts. This work began as a quest to help my son. It is a complicated package and often the interconnected pieces threaten to overwhelm me. I wonder how I can even possibly consider making such complex connections yet I know this is the only way to come to deep understandings of complex pedagogy. The undergraduates now study brain research and we are challenged to personalize learning based on each unique brain. This is not a small task and as I survey my English classes of 40 students I wonder if this is even possible. The numbers keep growing and the demands are endless yet the Universe screams out for me to be present and pay attention. Perhaps if someone had paid attention to the little six year old struggling to be heard we would not have the horror story of Tristan's life. We need to slow down and understand the whole story from a cognitive, emotional and physical perspective. Everything we are, and all our experiences impact the story of our lives…

The very first abstract that I had read of the work of Davidson's team, focused specifically on mindfulness meditation, and brought the first indication that mindfulness was being considered seriously by some members of the medical profession:

> The underlying changes in biological processes that are associated with reported changes in mental and physical health in response to meditation have not been systematically explored. We performed a randomized, controlled study on the effects on brain and immune function of a well-known and widely used 8-week clinical training program in mindfulness meditation applied in a work environment with healthy employees… These findings demonstrate that a short program in mindfulness meditation produces demonstrable effects on brain and immune function. These findings suggest that meditation may change brain and immune function in positive ways and underscore the need for additional research. (Davidson, Kabat-Zinn, Schumacher, Rosenkranz, Muller, Santorelli, Urbanowski, Harrington, Bonus, & Sheridan, 2003, p. 564)

Richard Davidson had learned about mindfulness from The Dalai Lama, with whom he also collaborated on brain imaging studies, conducted with meditating monks. As Bohac Clarke indicated (2012, p. 145), the Dalai Lama is a proponent of scientific studies, which would probe the interior individual perspectives of mind and consciousness:

> The Dalai Lama suggests that, rather than deny the subjectivity of consciousness, researchers should be trained in a rigorous methodology of first-person empiricism as a legitimate scientific methodology:
>
> > In training ourselves to take consciousness itself as the object of first-person investigation, we must first stabilize the mind. The experience of attending to the mere present is a very helpful practice. The focus of this practice is a sustained training to cultivate the ability to hold the mind undistractedly on the immediate, subjective experience of consciousness. (Gyatso, 2005, p. 160)

Since it is becoming clear that the brain is far more responsive to learning stimuli than was previously believed, an understanding of how it functions and learns is essential for those involved in curriculum and learning. The most recent developments in cognitive neuroscience (Damasio, A., 2010; Doidge N., 2007; Immordino-Yang & Damasio, A. 2007; Ramachandran, V.S. 2011; Siegel D., 2010; Sousa, D.A 2010) show that the plasticity of the brain allows the creation of new pathways, thereby resulting in new learning. The role of self -reflection and mindfulness has also been connected to neuroplasticity and increased ability to learn (Davidson et. al, 2012; Siegel, 2011).

The brain, which was once thought static and inflexible, has shown evidence of remarkable adaptability and flexibility and researchers now understand that teaching significantly impacts brain function. As teachers' understanding of the flexibility of the brain

increases, it follows that the pedagogical process should evolve in response to this new understanding of the cognitive labyrinth.

Understanding the complexities of the brain, consciousness and mind is instrumental to the holistic development of the individual and of society. As Csikszentmihalyi (1993) reflects, "If we don't gain control over the contents of consciousness we can't live a fulfilling life, let alone contribute to a positive outcome of history. And the first step to achieving control is understanding how the mind works" (p. 29).

Emotion, Learning and Mindfulness

As Immordino-Yang and Damasio point out, "the relationship between learning, emotion and body state runs much deeper than many educators realize and it is interwoven with the notion of learning itself" (Immordino-Yang & Damasio, 2007, p. 3).

A key component of providing a positive emotional context for learning, is forming relationships: "Good teaching requires getting to know one's students personally, uniquely, individually, so that a genuine conversation can exist between you, and knowledge is mediated in a way that has a human soul" (Smith, 1999, p. 9).

Researchers are also more aware of the link between emotions and stress and their interconnected relationship with learning (Immordino-Yang & Damasio, 2007; Siranni, 2004). As Immordino-Yang & Damasio (2007) state, "recent advances in neuroscience are highlighting connections between emotions, social functioning and decision making that have the potential to revolutionize our understanding of the role of affect in education" (p. 3).

The above studies characterize human beings as fundamentally emotional and social creatures. However, traditional educational paradigms fail to consider the significant impact of emotion in learning, as

> those of in the field of education often fail to consider that the high level cognitive skills taught in schools, including reasoning, decision making and processes related to language, reading and mathematics, do not function as rational, disembodied systems, somehow influenced by but detached from emotion and the body. (Immordino-Yang & Damasio, 2007, p. 3)

The effects of emotion and stress on the general learning process have been well researched, and the evidence shows that emotion is a significant indicator not only of academic success, but of overall health and wellness (Davidson et, al, 2012; Desbordes, 2012; Immordino-Yang & Damasio, 2007; Siranni, 2004). Jenson (1998) calls psychological stress "the single greatest contributor to impaired academic learning" (p. 52). Stress not only affects learning ability but the entire wellness of the learner. Observant teachers would note the types of emotions that are associated with their stressed students.

As Immordino-Yang and Damasio (2007) reflect:

> Although the notion of surviving and flourishing is interpreted in a cultural and social framework at this late stage in evolution, our brains still bear evidence of their original purpose; to manage our bodies and minds in the service of living, and living happily, in the world with other people. (p. 4)

The amygdala is located deep within the temporal lobe of the limbic brain and is the structure that is involved in many of our emotions and motivations, specifically those that are related to our survival. It is also involved in the processing of emotions and memory. The amygdala is essential to the ability to feel certain emotions and to perceive them in other people. It is also critical to learning, as "any competent teacher recognizes that emotions and feelings affect student performance, as does the state of the body" (Immordino-Yang & Damasio, p. 3).

The ability to regulate emotional fluctuations is a skill necessary for the processing of information in the higher evolved parts of the brain.

Contemplative pedagogical practices are generating interest in the scientific community in light of studies conducted on the impact of meditative practices on the brain (Austin, 2009; Lutz et al., 2008; Davidson et, al, 2012; Slagter et al, 2011). It is suggested that the effects of contemplative pedagogy, and mindful practice, impact the amygdala's response to emotional stimuli and may impact neuroplasticity and learning. Several neuroimaging studies have implicated the amygdala in the effects of meditative training on the brain. Mindful meditation training has been associated with lower amygdala response to emotional stimuli (Goldsmith & Davidson, 2008). Research indicates that qualities such as emotion regulation can be cultivated and can change the mind and brain (Urry et al., 2006) in a way similar to that of other skills traditionally learned through repetitive practice.

A new pedagogical process is required for understanding the interwoven complexities of biology, learning and culture—a relation which in the past has proven difficult to understand from a scientific paradigm. Can neuroplasticity result in changes to the physiological structure of the brain? What is the role of emotion, and can emotional processing be impacted by teaching mindfully? If it is possible to learn to control the fluctuations of emotion, is non-medical intervention to learning problems also possible? As Immordino-Yang & Damasio (2007) reflect: "the more educators come to understand the nature of the relationship between emotion and cognition, the better they may be able to leverage this relationship to the design of the learning environment" (p. 9). Studies are beginning to link mindfulness-based clinical interventions to reductions in anxiety and depression in adolescents, showing potential for enhancing the quality of education (Biegel, Brown, Shapiro & Schubert, 2009). A key

characteristic of contemplative practices is that they demonstrate forms of mental training that can induce plastic changes in the brain (Lutz, Brefczynski-Lewis et al., 2008). Although research in this area is new and generally based in assumptions the ground is ripe for explorations.

Contemplative practices "have been found to promote general wellness and alleviate a variety of medical symptoms (Davidson et. al, 2012, p. 147). Research has shown its impact in improving chronic pain, rheumatoid arthritis, fibromyalgia, anxiety and depression (Arias, Stenberg, Banga, & Trestman, 2006), in addition to affecting immune and endocrine function (Witek-Janusek et al., 2008). It is becoming more evident that the body and mind are deeply interconnected, and as such, educators need to be aware of the implications of this connection. As Abram (1996) reflects, "the living body is thus the very possibility of contact, not just with others but with oneself—the very possibility of reflection, of thought, of knowledge" (p. 45). Our bodies are deeply interconnected with our learning.

The interconnected role of mindfulness and cognitive learning science requires future research and exploration. The role of the breath and the body with regards to learning, neuroplasticity, and higher levels of thinking is complex and difficult to measure in terms of quantitative scientific data. Qualitative research, specifically narrative inquiry (Frank, 1995, 2010; Griffith & Griffith, 1994; Siegel, 2011) has been used to explore the mind and body connection. These studies show that sharing personal stories may be one method of approaching mindfulness and building learning communities.

Contemplative practice, combined with other approaches focusing on unique learning needs, has the potential to significantly impact teaching and learning. Ideas drawn from contemplative practice "promise to improve the regulation of attention, emotion, motivation,

social cognition, and behaviour," which is significant toward "reducing the risks children face and improving both social and academic outcome of schools today" (Davidson et. al, 2012, p. 151).

Table 3. Integral Model as a Framework for the review of the literature.

Upper left – Mindfulness (I)	***Upper right – Neuroscience and the Body (It)***
"Although attempting to bring about world peace through internal transformation of the individual is difficult, it is the only way." (Dalai Lama)	*"The living body is thus the very possibility of contact, not just with others but with oneself—the very possibility of reflection, of thought, of knowledge." (Abram, 1996, p. 45)*

Mindfulness and Storytelling

As a child I spent many hours escaping into the world unfolding before me with each turn of the page. As an adult my interest turned to linguistics and the acquisition of language as I contemplated how these words become stories and how these sounds became words. I reflected on how our brain evolved to allow for the development of this wonderful gift we call storytelling, and I wondered if story was a healing balm to help us "cure the diseases of our spiritual hearts" (Smith, 2012, p. xi). I knew somehow story was a strand that would link my explorations of mindfulness and self, the current cognitive learning science, and overall holistic wellness and that this was a critical link, for I have witnessed first hand that "mental illness is now the leading form of human suffering in North America" (Smith, 2012, xi). Telling the stories of our lives, or life writing, offered a process to open up the possibilities of linking the power of a mindful brain and a heart of wisdom (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012). For years I have been pondering how I might bring these two together. This has required a great deal of discipline and contemplation as well as the experience of deep silence and stillness.

I needed to stop moving, stop questioning and stop fighting to allow the voice to speak. And then the hauntingly beautiful, yet incredibly powerful strands of the plot line began to spin their web around me encompassing not only myself but the other characters immersed in story. It allowed me to "feel better, more 'recollected' as they say in Benedictine spirituality, because I was affirming the ever-elusive wholeness of my being. It was a form of soul purification and indeed bodily discipline that was at times quite terrifying" (Smith, 2012, p. xii).

Yet something incredible happened as I descended into the inferno in search of a semblance of paradise. The, "long held secrets bubbled up, betrayals were noted, simply

joys giggled forth like teenagers and a heightened awareness arose of the absolute intractability of our human interdependence, sabotaging the myth of autonomy" (Smith, 1999, p. xiii). Through the moments of silence and discipline, my story arose and through that story I was able to expand my awareness and understand my connection to the whole. It was a type of recovery that allowed me to see life for what it really is, allowing me to escape the twisting matrix of my own mind and stop the rapid decline down the slippery slopes of the rabbit hole.

Smith (2012) reflects, "in North America, anti- psychotic drugs now outsell all other medications including those for heart disease and stroke" (p, iiv). This is a result of the inability to control the fluctuations of the mind, to live mindfully, and to make sense of the story of our lives as "the way that we feel about our past, our understanding of why people behaved as they did, the impact of those developments into adulthood—these are all the stuff of our life stories" (Siegel, 2011, p. 170). The key was to find some way to make sense of this life narrative, for "if past trauma or loss is not resolved, our internal narrative will break down" (Siegel, 2011, p. 182). I needed to dive deeply into my own memories, submersing myself in stories—mine and those around me—to allow for an understanding of this sea of language swirling around me that encompassed the stories of my life.

Our sounds, our words, and our language are all connected to our story, and the story has great power on the journey to awakening and wisdom. It also has an incredible ability to heal our heart and bring us to a place of mindfulness where we can be "overcome by a feeling of stillness, or wanting to be completely and meditatively quiet, to simply allow the work to penetrate my endlessly distracted life and draw me into an understanding of Life that is deeper, truer, and indeed more hauntingly beautiful than anything my conceptually overburdened imagination could possibly imagine" (Smith, 2012, p. xii).

It is the understanding of our personal stories, and how they connect to the stories of others, that form the basis of living mindfully in a community. From creation myths to Shakespeare, to speculative science fiction, stories shape our world, provide us with insight and open passageways to previously unobtainable places. They allow us to understand our own personal world, sometimes through our own voice but often through the lens of another. Our stories and our language bring together the components of the Self and the Other, connecting us to our natural world as our interconnected tales form the woven threads of community.

Investigating the process of storytelling is key to unveiling the role of mindfulness in curriculum and learning.

Stories are not something that can be calculated and measured; rather, stories form the essence of our collective human condition as beings living within intersecting webs of life. As Abram (1996) reflects, "The everyday world in which we hunger and make love is hardly the mathematically determined 'object' towards which the sciences direct themselves" (p. 32). However, often in education we seem somewhat determined to use scientific measurable data. We evaluate the stories of children, giving them marks for content and organization, which impedes the natural flow of creative expression. The fact that language evolved to allow us to communicate, to share ideas, thoughts and stories, has been lost, and we have become separated not only from our language but from ourselves and our environment. We break our stories into words, into letters, into grammatical structures, into fragmented pieces that lack interconnectivity and meaning, forgetting that the original sound of the vowel was the breath of life. The fragmented use of language does not honour and recognize the connection between our minds and our bodies, and the significance of that to our language. Language binds and connects our communities by allowing us to step into the shoes of others and seek to truly understand different perspectives, participating in the mindful practice of staying present and paying attention. Without this mindfulness you cannot pay attention to a story unfolding around you because your mind remains "too encumbered with what you thought was important in that moment to take the time to stop, to listen and to notice things" (Kabat-Zinn, 2013, p.11). We need to slow down and pay attention to the story revealed through our language.

Language is an organic, living system, consisting of interconnected strands of words and concepts that encompass the system as a whole: "the web like nature of language ensures that the

whole of the system is implicitly present in every sentence, in every phrase" (Abram, 1996, p. 83). Any separation of the parts results in a disconnection between our cognitive, emotional, and physical beings, as well as a disconnection from our environment. As Abram (1996) asserts, "this assumption has its source in Rene Descartes's well known separation of the thinking mind, or subject, from the material world, of things, or objects" (p. 32). Using our language to share our stories allows us to bring the disconnected bits back into their whole, facilitating the formation of community. As Kabat-Zinn (2013) reflects on this life connection:

> Poets and scientists alike are aware that our organism pulsates with the rhythms of its ancestry… Our very bodies are joined with the planet in a continual rhythmic exchange as matter and energy flow back and forth between our bodies and what we call 'the environment.' (p. 39)

Through the use of different modes of language, we can see common strands that interweave and connect in unexpected ways, revealing a complex and interconnected narrative of life. If we pull and unravel a strand of the pattern, the integrity of the whole is forever compromised. We must search for new type of science to understand the whole of the pattern in our schools, learning organizations, and our lives. As Wheatley (1992) reflects:

> The light may be dim, but its potency grows as the door cracks wider and wider. Here there are scientists who write about natural phenomena with poetry and a lucidity that speak to dilemmas we find in organizations. Here are new images and metaphors for thinking about our own organizational experiences. (p. 7)

Our educational systems are interconnected, and the evolution of these systems must reflect that critical understanding. Smith (1999) explores the idea that the understanding of the Self is

sustained through its relations and in turn the relations are sustained through the Self. One cannot exist without the other.

> Pedagogically it can be seen how this view sponsors a certain requirement of friendliness with others, a new kind of ethical foundation for social relations. If I harm you, somehow my own self requirements are diminished, or at least the context of my life is harmed. (p. 16)

It is the act of communication, the sharing of narratives, that offers us insight into the shared human condition. Entering into this exchange with the patience for mindful reflection allows us to develop deeper understandings of our own culture and the cultures of others:

> The importance of relating historical narratives to contemporary situations is not unknown to educators, particularly English teachers. It is acknowledged that one reason for studying literary fictions is to gain a deeper understanding of historical events, whether of one's own culture or of others. (Sumara, 2002, p. 27)

Our personal stories are our own historical texts. Sharing the history of our lives and their varied experiences allow us to co-exist together. Hasebe-Ludt, Chambers and Leggo (2009) comment on their process of personal story-sharing, which they identify as autobiographical life writing:

> In a similar way, as life writers, we are seeking to locate ourselves in a rapidly growing network of contexts, including family, neighbourhood, community, profession, school and society, by sending out resonances that we can hear when, in the way of echolocation, we seek to know our locations in connection with the past, the future, and others, as well as with our unfolding sense of self-identities. So our narrative, poems and meditations are echoes whose vibrations are lines of connection that guide our practice. (p. 4)

The lines of intersecting connections developed through the process of story-sharing help to build strong and authentic communities within which all can grow.

The desire for communication and the sharing of stories can be traced back through our own evolution, from the progression of our reptilian primitive brain to the development of the higher levels of the neocortex. When we began to develop our language birth was given to our stories, which in turn strengthened our communities. Language, and our use of language, has critical connection to mindfulness and the establishment of community.

History of the Word, Language and Community

What differentiates humans from most other species is our ability to use language and reflect on our lived experience. Compared with our long evolution, the written word is a relatively new invention, but its emergence allowed us to record, and thereby reflect upon, a history that up to that point was purely oral. As Wolf (2007) states;

> Our ancestors' invention could come about only because of the human brain's extraordinary ability to make connections among its existing structures, a process made possible by the brain's ability to be shaped by experience. The plasticity at the heart of the brain's design forms the basis for much of who we are, and who we might become. (p. 3)

The connection between the plasticity of the brain and the art of storytelling in our educational praxis is a key consideration in this study. What is the role of storytelling with regards to mindfulness and how does the understanding of who we are and who we may become impact the plasticity of our physical brains? Our use and evolution of language, and its application to higher levels of thinking, is reflected in our current educational contexts. As the brain is changing daily, we need to educate students in a way that honours this evolving process, and the

evolution of language. Are we sensitive to the different modes of discovering and sharing stories? What will be lost if we hold to the old and don't honour the new forms of language that are developing rapidly? Wolf (2007) reflects on the rapidly changing paradigm of current educational contexts and our need to keep up with the cycle of change:

> In words unerringly present today, Socrates described what would be lost to human beings in the transition from oral to written culture. Socrates' protests—and the silent rebellion of Plato as he recorded every word—are notably relevant today as we and our children negotiate our own transition from a written culture to one that is increasingly driven by visual images and massive streams of digital information. (p. 19)

Learners of today live in a new world, and we need to find ways to address their changing learning environment. We need to be present and aware of what works in any given context. But not all methods of the past need to be discarded: traditional cultures utilized storytelling to promote wellness, and thus storytelling might prove to remedy the problem of increased anxiety and stress in today's schools. Things that worked in the past will still work today if we take the time to reflect mindfully on how and why a certain process had been effective. As Kabat-Zinn (2013) reflects, "It is not that mindfulness is the 'answer' to all of life's problems. Rather it is that all life's problems can be seen more clearly through the lens of a clear mind" (p. 13). The acquisition of a clear mind requires time to understand and reflect on the stories as ongoing metaphorical representations of our lives.

In our schools, the beauty of a well thought out metaphor is often passed over, being subordinate to long lists of terminology and other disconnected bits of knowledge. We think by developing connections, weaving one idea into the next, which reveals to us deeper meanings in our thoughts and ideas. We learn through stories and patterns, as the brain is naturally wired to

make these connections (Siegel, 2011; Sousa, 2001). Regardless of the origin of the story, the discovery and the retelling of the story make connections from one pattern to another. The recognition of these patterns solidifies the base of interconnected communities. We need to understand ourselves and our own stories, and then extend this understanding to our roles in the various communities that surround us.

Autobiographical Storytelling as a Means for Personal Reflection and Understanding

The exploration of identity is often at the heart of our pedagogical process. Through education, we hope to discover our own voices. Smith (1999) traces our deep roots in the history of autobiography:

> Current interests in autobiography have a serious precedent in Saint Augustine of the fourth century. His *Confessions* were an experiment in the art of introspection, with introspection being the means to unravel and describe all the ways that a human soul could be devious in the search for its true, divinely inspired identity. (p. 12)

The process of introspection and reflection is a critical part of the process required for higher-level thinking and mindfulness. Knowledge of the Self also depends on the context of our interactions with others. Storytelling has for centuries been a powerful vehicle for communication, entertainment, and education. It is a means for passing on cultural ideals and making sense of our world. At this point in our history we need much more than a factory model of education. Rather than mindlessly preparing children for work we need to create caring and empathetic communities that ethically work together to create a strong interconnected web of life. To create engaged and ethical citizens, educational leaders need to understand their own personal stories. These stories are all unique and cannot be given voice via some predetermined

formula. Hasebe-Ludt, Chambers & Leggo (2009) comment on the process of writing and sharing stories:

> In the ethos of these times, humans need a soul place, a renewed connection between humans, the places and the beings that dwell in these places. In our autobiographical writing, this is the common ground that we seek and we believe that it is our pedagogical and professional responsibility to find. In telling our stories, we present the dilemmas and questions we live with… (p. 14)

In telling our stories, and making time and space for careful contemplation and reflection, we can enter into a state of mindfulness. The resulting deeper narrative reflection on the dilemmas and questions we live with will bring learners into higher levels of understanding from cognitive, emotional, and physical perspectives.

Storytelling and Wellness

Siegel, 2011; Abram, 1996; Griffin & Griffin, 1994; Hodge, Pasqua, Marquez & Geishirt-Cantrell, 2002; Frank, 2010 have explored the connection between storytelling and the body. Their work has roots in the work of Paulo Freire (1921-97), a Brazilian educationalist who launched literacy programs amongst the disenfranchised people. Freire, in *Pedagogy of the Oppressed,* explores the link between human beings and their world through the concept of conscientisation. He defines the concept of *conscientise* as an increase in consciousness or an awakening - to *render conscious*. Freire's idea of *praxis* is a form of reflection that stems from and remains embedded within active human intervention in reality. This conception of *praxis* is significant to this study as it explores the nexus between mindfulness and story. Yet our stories cannot simply be fables to reflect upon, but must act as catalysts for learning and change. True praxis can never really be only thoughts but must also involve action. When the reflection and

the action become one it results in creativity and the ability to transform one's social situation, or storyline. With this idea of transformational learning, we can connect to the physical growth of our neuropathways as we move from our reptilian survival brain into our higher thinking pre-frontal cortex. Our role as humans is to somehow come more fully into our ontological being. This is part of the process of our life stages—an "ontological and historical vocation" of becoming our full conscious being (Freire, 1970. p. 66). It is this understanding of the complex, transformative nature of self, that is at the heart of the study of ontology. Part of this transformation involves coming to an understanding of our personal story and our role within our communities. The transformation affects both our ontology and our epistemology as well as connects the cognitive, mental and physical components of our Being.

Frank (2010) and Griffin & Griffin (1994) specifically focus on the relationship between our narratives and physical illness. Their research supports a critical need to share stories, to allow the body to explore and process its memories and heal itself. If we are physically ill, it is difficult if not impossible to learn. Often in education, the voices of the learners and often the teachers themselves are silenced, resulting in physical and emotional distress and potential disease. Stress, anxiety, and burn-out are current realities in many of today's classrooms and we need to find a new approach to teaching and learning that avoids such dire outcomes. Wellness may be improved if we work mindfully to understand the narratives of each individual learner.

The work of White & Epson (1992) focuses on a problem-based narrative. Their work in *narrative therapy* supports the notion that physical and emotional wellness can be achieved through the sharing of narratives. Through the sharing of narrative story wellness can be achieved. This has significance to our work in classrooms, and further research is required with regards to its implementation in our educational context, specifically in the English Language

Arts classroom. How can the use of story serve as a tool for self-discovery? How can this then be applied in an interdisciplinary context? Does story have the ability to facilitate wellness in our teachers and learners? Are our curriculum objectives compatible with allowing learners to explore and understand their personal stories? How is the understanding of our personal stories in alignment with the ideology of teaching mindfully, and can this mindful understanding of our stories improve the well-being of the entire community? These are deep questions with regards to authentic pedagogical practice and require us to reflect carefully on the role of the humanities on health.

Personal Understanding, Wellness and the Building of Community

> Once upon a time, long ago and far away (or perhaps not so long ago), teachers did not use fancy PowerPoint presentations, overhead projectors, or even chalkboards. They simply shared their knowledge through stories.

Traditionally knowledge is transferred through the art of storytelling. The first written texts to appear in Greece—namely the works of Homer, were essentially transcriptions of oral works chronicling the journey of the hero. Wisdom and ways of understanding our world were shared through oral storytelling tradition, and with the development of the written world our ability to share our ideas increased. This also required a cognitive leap as we were now required to decode symbols and interpret meanings separately from the oral context. This has presented a world of complexities to both teachers and learners. Wolf (2007) reflects on the evolution of the English language and the complexity it presents to learning:

> The English language is a similar historical mishmash of homage and pragmatism. We include Greek, Latin, French, Old English and many other roots, at a cost known to every first and second grader. (p. 42)

Our language has been separated from its initial intent, which was to communicate and share our human story and to understand the interconnections that we have with our Earth. To speak a language we must understand and be a part of the system we inhabit, understanding the web-like nature of the whole system:

> This does not mean that it is necessary to know, explicitly, the whole of the language in order to speak it. Rather, the weblike nature of language ensures that the whole of a system is implicitly present in every sentence, in every phrase. (Abram, 1996, p. 83)

To be able to speak then is to be able to share, to be able to connect and become an interconnected part of the greater whole. There are many ways to tell and share a story: stories can be sung, danced or enacted in a variety of contexts depending upon the unique learning profile of each individual brain. Abram (1996) reflects on the power of singing:

> The sung stories, along with numerous ceremonies to which they were linked, were in a sense the living encyclopedias of a culture—carrying and preserving the collected knowledge and established customs of the community—and they themselves were preserved through constant repetition and re-enactment. (p. 104)

These insights can also be brought into the digital world as methods of telling and sharing stories evolve to include multimedia formats, allowing for the inclusion of larger communities than previously possible. It is through the ongoing conversations of these interconnected communities that we educate our young and keep new ideas alive and flowing. Wheatley (2002) asks us to trust the process of the sharing and join in with the conversation, building authentic and supportive communities:

> Wherever conversation leads you, I trust you will experience how listening and talking to one another heals our divisions and makes us brave again. We rediscover one another

> and our great human capacities. Together, we become capable of creating a future where all people can experience the blessings of a well-lived human life. (p.11)

The well-lived life is the ultimate goal of our educational systems: the building of supportive communities that help us discover our human capacities. This is what guides the vision of Alberta's Inspiring Education document and local school Board learning outcomes. Participating in the communal art of storytelling involves the gathering of narratives—written, oral, visual and digital—in order to focus on and understand the deeper meaning we give to our experiences. When we begin to understand the deeper meaning of our experiences, we develop insight into the complexity of our human lives and the world we coexist within.

Language is used to communicate and build connections, and thus there are dire consequences when language becomes a barrier. Mindfulness in teaching may extend a voice to someone who has been silenced by the barriers of an oppressive language. Crotty (1999) reflects on the process of mindful learning as explored through the work of Freire;

> Freire does not begin by teaching his peasant groups the alphabet or showing them how to spell words chosen for them to learn. Instead he spends time with communities, learning himself the words that are meaningful to the people, worlds that evoke a response in them. (p. 148)

Freire did not introduce literacy to his learners by breaking down the language into its alphabetic sound bits or memorized spelling lists. Instead he created a meaningful connection, spending time with communities and living in that community. For learning to occur the process must be meaningful, engaging, and relevant to the life of the learner. As Connelly and Clandinin (1990) state, "education is the construction and reconstruction of personal and social stories; teachers

and learners are storytellers and the characters in their own and other's stories" (p. 2). Learning is a spiral process that folds back onto itself through the power of our language.

Our stories are our journeys, our quests, and represent a central aspect of our human experience, for "the most basic purpose of going on a journey...is the very ordinary one of learning to be at home in a more creative way, in a good way, a healthy way, a way to be tuned to the deepest truth of things" (Smith, 1999 p. 2). We journey to find our way home, and to find our place in the community. Throughout history, reflection through storytelling is a form of critique or evaluation used to identify patterns and connections in community life.

> Stories are narratives, which create self-awareness, a sense of humour and pathos, and express the story makers' self-consciousness. (Roddick, 1993, p.10)

A deep understanding of our consciousness can be accessed through storytelling, which has a rich history in the Academy, specifically with regards to personal growth and leadership. As Holmes (2000) reflects:

> Plato (1906) himself demonstrated considerable skill as he created teachings rich in metaphor and visual images to describe the challenges leaders face. It was essential to continue one's learning in the philosophical arts through the interaction with literature. Through storytelling we can often live the experience. (p. 33)

The ability to live the experience through the sharing of our stories allows the formation of collaborative communities. The awakening we experience through sharing stories will allow us to see clearer the communities that we co-exist within and our integral relationship to these systems.

Campbell (1972), Clemens and Wolf (1999), Clemens and Mayer (1999), & Whyte (1994) have all explored the role of literature and storytelling in understanding organizational

complexities. The work of Richardson (1994) demonstrates the power of writing. The process of writing and sharing literature, of sharing our human stories, has remarkable potential as a catalyst for change within our educational systems. Stories help us mindfully understand ourselves and others around us, allowing us to explore the complicated issue of living together ethically and empathetically as an interconnected community.

Table 4. Integral Model as a Framework for the review of the literature.

Upper left – Mindfulness and Contemplative Pedagogy (I) "We are determined to learn the art of mindful living by touching the wondrous, refreshing, and healing elements that are inside and around us, and by nourishing seeds of joy, peace, love and understanding in ourselves, thus facilitating the work of transformation and healing into our consciousness." (Thich Nhat Hanh, 2009, p. 124)	***Upper right – Mindfulness, Cognitive Learning and the Body (It)*** "The frontal lobe is associated with most of our complex thinking and planning." (Siegel, 2011, p. 7)
Lower Left – Mindfulness and Community (We) "Through literacy and literacy engagement with words, stories and poems we hope that they can remember their own stories, gain the courage to tell them and to address the complicated issues of living ethically and with empathy among all our relations." (Hasebe-Ludt, Chambers & Leggo, 2009, p. 12)	

Mindfulness as it Relates to System Understanding

What began as a quest to understand my own life and my own story eventually evolved into the need to understand the bigger picture of the complex system of

education. What is the role of mindfulness with regards to current policy direction? What is the impact of the concept of mindfulness and how are we are developing curriculum to meet our collective vision for the future? How are all these things connected and how can we make this connection evident to those who are involved in the process? Is it possible to reclaim the souls of our students by simply slowing down, being present and paying attention? The vast possibilities swirled around my mind as I contemplated the meaning of this question. We are all part of many complex systems which require careful consideration. Therefore the next step in my journey was to begin to link the ideologies of the various educational stakeholders and try to find the common heart.

Hence, it was time for my poetic muse to merge with the scientist again, time for art and science to become one. My graduate degree explored the complexities of organizational learning and leadership and I turned back to the work of Wheatley and Senge, attempting to thread together the broken strands of our current educational context. There simply had to be a common bond, as we all share the collective goal of building a harmonious and healthy society. We all share the same dream of creating a beautiful world in which our children can grow. Somehow these pieces needed to be glued back together to allow recognition of a shared ideology, as without a collective vision any type of organizational change is impossible.

There are many stakeholders in education. Government plays a key role, as the need to build a society of engaged and ethical citizens is critical to the well-being of the country. School boards also play a critical role as they work to build a common vision based on effective practice and the current research on authentic teaching and learning. Teachers, standing guard on the frontline, are an essential part of the process, as they truly understand the lived experience and the key complexities involved, and work towards a new way of teaching and learning. The Universities and the teacher-education programs are critical in building a strong foundation, as it is through evidence based research and critical reflection that we bring forth the fundamentals of effective praxis. Communities are key stakeholders in the foundation, as community is established and built around the strength of interconnected systems. Parents are powerful voices, as they can see firsthand the positive or negative impact of our current educational contexts. The most critical stakeholder is the individual child. The story of each unique child needs to be voiced, recognized, and allowed to grow in a way that honors the unique gift that each has been given.

Hence with my various hats stacked in disarray upon my head I began to contemplate the connections. The Artist and the Scientist battled it out, each one seeking supremacy over the other before realizing that they were each part of an interconnected whole and they just needed to get along and work it all out. My positions as researcher, teacher, artist and mother all negotiated back and forth the meaning of curriculum and

the need to find some open space for things to grow. It was complicated, time consuming and required a lot of interlinking pieces but, in the end, I realized that the system was not at odds with itself but functioning in a quite cohesive manner. Through the use of the Integral model, I was able to align the stakeholders and build a model for understanding.

I used this model in my undergraduate specialization course and it seemed to make sense to the pre-service teachers. I presented at conferences and conventions in an attempt to bring forward my work on the role of mindfulness in curriculum and learning. I created the model first, and then carefully considered the components of the design and how I could bring this work to life.

To be engaged in our learning it needs to be meaningful and relevant to our daily life. Out of a need to help my son, and many others like him, the Universe has called me to this work—and out of the ashes indeed has risen the Phoenix. My life has been a series of experiences which has brought me to this time and this place. My personal story, intertwined with the tale of my son and linked in so many ways with the voices of my students, demanded that I pay attention.

This dissertation began as many tumbled thoughts merged together in long documents as I attempted to find some semblance of the whole. It was slashed, edited and almost given up as a lost cause when a final breath whispered through the wind for the sake of the children, illuminating the connections so desperately required. Throughout our system, both children and their teachers are struggling to breathe. They are fighting for some open space to allow their minds to settle and their bodies to be well. Our systems and the people within them are aware of this need. Big brother is not controlling us from afar but a symphony of voices are joining together to help us understand our common cause, and our common humanity. The voices are calling each other, like the sound of the wind through the trees, and we must recognize that we share the same essence. We are all striving for a mindful brain and a heart of wisdom (Chambers, Hasebe-Ludt, Leggo and Sinner, 2012). As Smith (2012) reflects on this connection, "through the heart, brings things to mind, so that the mind is challenged to (re)incorporate and re-evaluate things that have been forgotten and left for dead, out of fear, pride, false courage, cultural prejudice, or sheer stubbornness. In this sense then, heart work is headwork, such that through the unification of their relative experience, wisdom has a chance to arise, since what comes to be known is known both experimentally and reflectively" (p. xv.). What began as an inner journey, through my poetic soul and into my heart, developed into a scientific exploration of the brain and how people learn. The Storyteller then took the reins and tried to determine how we might link the pieces. Then, reaching out to hold hands with the Scientist, the two began to uncover the complexity of the System. Together they realized that the System was really not that complicated after all so long as both were present and paid attention. For if we "listen with an open mind and a receptive heart" (Thich Nhat Hanh, 2009. p. 105),

> *remarkable things can happen and we can begin to understand the interconnectivity of the whole. Here we can reach a state of mindfulness where "we produce our true presence in the here and in the now and offer it to our community and to the world" (p. 9).*

We form an interconnected web of life, each strand woven and linked to the next. As a result, each action we make causes a reaction in the whole. Each interconnected strand is a part of a much larger system, yet often we remain unaware of this interconnection and instead mistake our personal perception as the only valid viewpoint, given that our own personal understanding of our world shapes the way we see and view things. Thus, the differing perspectives that exist between individuals give rise to different meanings and modes of understanding. As Abram (1996) reflects, "It should be evident that the life-world may be quite different for different cultures. The world that a people experiences and comes to count on is deeply influenced by the way that we live and engage in the world" (p. 41). Our ontology shapes our epistemology, our very way of being and living in our world. This is also true of the way we understand our learning organizations, and our roles within these complex systems. To fully understand the diverse factors involved in these interconnected systems, we must think critically, and set aside the time and space necessary for mindful contemplation. When we can think critically about the factors that affect the eventual outcome of these systems, we can allow new ideas to emerge and fresh ideas to be given breathing room.

For change to occur in an organization there needs to be a common vision, a philosophy which establishes a benchmark for helping us reach a mutual understanding despite the variance in our own personal lenses. Without a common vision, fragmentation and fracture may result in our organizational systems, as the ideas might appear out of alignment or as simply "add-ons" to what appears to be an already overburdened organization (Friesen & Jardine, 2009). Setting

aside time for reflection is critical for all stakeholders involved in a change of management, so that the participants can fully understand and consider the multiple perspectives and possibilities available.

In current educational context in Alberta, there are a variety of organizations working towards understanding the praxis of authentic and effective teaching and learning, in order to implement new procedures to meet the current needs of learners. The key lies in meeting the needs of the individual learner in creative and innovative ways in order to help her become engaged and enthusiastic about learning. As each learner is unique, discovering how to engage each learner is challenging work that will require a serious paradigm shift from the educational models of the past. Innovative student engagement will impact how the entire system will grow and thrive.

I am aware that many voices will seek to be heard with regards to education. This particular research project will focus on the following stakeholders:

1. Alberta Learning
2. Calgary Board of Education
3. The University of Calgary

I am aware that there are many other stakeholders involved in the future of education in Alberta but has chosen to align this research with these three organizations, as these are the systems I am most familiar with as a student, a teacher and a researcher. My familiarity with these groups has spurned my desire to see new and innovative possibilities emerge in response to the research data. My memory as a dismayed young girl refusing to colour in the lines drives my desire to see a new model of teaching and learning, one that focuses on individuals and their unique passions and desires. The new model will be mindful of the student and the context at hand,

allowing for personalization in student learning, since "our students are not uniform, they are not steel, and they do not respond in the same way to pressures of various kinds" (Eisner, 2002, p. 583). Each unique brain will discover its own gifts and passions and will understand its own particular journey. Students will recognize their roles in our interconnected system as individuals "who have particular interests, pursue those interests in depth, and at the same time work on public service projects that contribute to something larger than their individual interests" (Eisner, 2002, p. 583). This is a model that will not follow traditional paradigms or assembly-line principles but will be based in the reflective praxis of mindful teachers and their ability to have a significant impact on curriculum and learning, for "the point of learning anything in school is not primarily to enable one to do well in school—although most parents and students believe this to be the case—it is to enable one to do well in life" (Eisner, 2002, p. 581). In this spirit of effective teaching, this section focuses on what is currently supported in systems work with regards to teaching praxis and the personalization of student learning, and how this is connected to the research questions.

Our learning organizations are complex and always evolving in configuration and make up. Education systems are forever in motion, requiring us to be mindful and responsive to changing needs and contexts. As Wheatley (1992) states on the ongoing spiral process of learning organizations,

> I believe that we have only just begun the process of discovering and inventing the new organizational forms that will inhabit the twenty-first century. To be responsible inventors and discovers, though, we need the courage to let go of the old world, to relinquish most of what we have cherished, to abandon our interpretations about what

> does and doesn't work. As Einstein is often quoted in saying: No problem can be solved by the same consciousness that created it. We must learn to see the world anew. (p. 5)

The key is to build on what we know from the past, specifically with regards to mindfulness, and then expand that into our new-world thinking, as not all things of the old world need to be discarded. Some things need to be revisited, reframed and renewed in order to bring us to a new place of learning. We must savour what is valuable and assess how to improve upon it, because "with regards to learning, the joy is in the journey" (Eisner, 2002, p. 581). Learning is a cycle of growth, with one layer building on the next and spiraling out to a world of new possibilities. Since our future is morphing rapidly, we must keep pace with it in order to keep learners engaged and inspired, to build ethical systems and to sustain our long term viability with our earth. Each learner must be instructed how to take their place in the interconnected web of the whole, as "to preserve the world against the mortality of its creators and inhabitants it must be constantly set right anew" (Friesen & Jardine, 2009, p. 5). The next section of this literature review examines the policies of three major stakeholders in Alberta educational context as they work towards a satisfactory vision of education.

Review of Alberta Education's *Inspiring Education* Policy

> This collaborative learning community, consisting of thousands of Albertans, came together to create the framework for *Inspiring Education*, asking,
>
> How do we ensure the child born this year can adapt to the many changes ahead? As importantly, how do we help children discover and pursue their passions? How do we help them make successful transitions to adulthood? And how do we help them become lifelong learners who contribute to healthy, inclusive learning communities and thriving economies? (p. 4)

As a result of this collaborative consultation they articulated their vision of the successful student in the form of three specific conditions, which have been summarized as *the three E's of education for the 21st century.*

1. ***Engaged Thinker*** – one who thinks critically and makes discoveries working from multiple perspectives and disciplines to identify problems and find the best solutions. As a life-long learner, the engaged thinker will communicate these ideas to others as well as adapt to change with an attitude of hope and optimism.
2. ***Ethical Citizen*** – one who builds relationships based on humility, fairness and open-mindedness, who demonstrates empathy and compassion and who fully contributes to the community through teamwork and collaboration. .
3. ***Entrepreneurial Spirit*** **–** one who creates opportunities, achieves goals, strives for excellence and earns success. One who has the confidence to take risks and make bold decisions in the face of adversity.

The underlying characteristics of the three E's of education can be summarized within the quadrants of the Integral Model.

Table 5. Integral Model Framework Applied to the Three E's

Upper left – Mindfulness and Self (I) -hope and optimism for the future -humility -empathy and compassion -learner centred -innovative, passionate and positive	***Upper right – Mindfulness and Cognitive Learning Science*** ***(It)*** -thinks critically -multiple perspectives and disciplines -engaged thinker -inquiry and discovery -competency based -responsive flexible approach
Lower Left – Mindfulness and Storytelling(We) -fairness and open mindedness -teamwork and community -collaborative relationships -teacher as architect of learning -shared responsibility and accountability -engaged communities	***Lower Right – Mindfulness and Systems thinking (*Its)** -adapts to change -creates opportunities for change -takes risks in the face of adversity -interdisciplinary curriculum -innovation to strive for excellence

This model sharply contrasts the industrial model of the past, in that it is driven not by efficiency but by creativity. There is no one-size-fits-all standardization of assessment, or regimented path to learning. It is based on innovative, collaborative learning communities working together to understand our spirits, brains and bodies, and the communities and systems we live within. This is a mindful model that is transformational in nature and presents a new way of thinking about teaching and learning, focusing on the development of the whole instead

of individual parts, as "our concept of education should expand beyond the school and integrate the community, the environment and the real world" (Alberta Education, 2013, p. 23).

The possibilities for creativity and innovations are endless and the key philosophy is always grounded in the question of, *how does one live in the real world?* Competency-based education will prepare learners to live, grow and contribute to the world. School subjects will not be studied in isolation, but in connection with our living, breathing human stories. Our autobiographies will show their vibrant lives as they interweave and connect with the stories of others. As Leggo (2003) reflects on the process of autobiographical poetry with regards to learning and living in the world,

In my autobiographical poems,
I am learning how to live with wellness in the world.
I am learning that live/living is a verb,
a process, a flow,
not necessarily evolving,
perhaps revolving,
*but definitely not static. (*p. 135)

The ability to adapt and flourish amidst the cycle of change and growth is critical in this brave new world wherein learners are an integral part of the process. As I reflected on the future,

No more worksheets
Memorized tests
Children begging
Are we done yet?

Engage your mind
Entice your soul
Let your inner passion emerge
You are in control

Each learner will require what she needs when it is required, with "each learner starting and ending on different points" (Alberta Education, 2012, p. 26). Authentic relationships between students and teachers will emerge, to the extent that students and teachers understand each other's stories and the deep connections between and "teachers are as interested in the questions students ask...as they are in the answers that students give" (Eisner, 2002, p. 579). The power of relationships in interconnected learning communities is critical, and demonstrates the interconnected trinity of the teacher, the student, and the content. Technology is a tool to be used in order to enhance, engage and support, but not to replace authentic learning. Authentic learning is based in relevancy of content, and in the relationships between students and teachers. Teachers should strive to build strong and caring learning communities, recognizing that "the most important forms of learning are those that students know how to use outside of school, not just inside of school" (Eisner, 2002, p. 581). The following seven principles outline the goals of this vision of future education:

1. Learner-centered – the needs of the children are always the first consideration
2. Shared responsibility and accountability among all stakeholders
3. Engaged Communities – supportive learning
4. Inclusive, equitable access – all ways of life and individual needs are respected and valued within the learning environment.
5. Responsive, flexible approach – meaningful learning opportunities appropriate to each learner's developmental stage. Multi-disciplinary, community-based and self-paced.
6. Sustainable and efficient use of resources, both financial and human
7. Innovation to promote and strive for excellence – creativity and innovation

Table 6. Summary of the Principles of Inspiring Education in the Integral Model

Upper left – Mindfulness and Self(I)	***Upper right –Mindfulness and Cognitive Learning Science (It)***
-Learner-centred – based on the interests, passions and desires of each individual child -Self-paced learning -Creativity and innovation	-Learner-centered based on cognitive processing and physical needs -Responsible, flexible approach to meaningful learning opportunities -Creativity and innovation
Lower Left – Mindfulness and Storytelling (We)	***Lower Right – Mindfulness and Systems thinking (*Its)**
-Engaged communities supporting learning -Community-based learning	-Shared responsibility and accountability -Inclusive equitable access -Efficient use of resources to support the system

Decisions will not be made based on rigid policy and procedures but on best practice, and grounded in current research on effective teaching praxis receptive to our current knowledge on how the brain learns, how we build community, and how we are interconnected with each other and our Earth. We must foster an evidence-based practice that supports what we now know about learning, and the diversity of factors involved in that process.

> In 2030, if Alberta is to truly foster learning excellence there will be no 'on size fits all' approach. What is taught, how it is taught, and how the community is engaged will reflect what is valuable to the community. (Alberta Education, 2010, p. 37)

This interconnected learning community will inspire the future and lead us away from the focus on standardized exams that has dominated educational contexts and fed the Fraser report statistics. In the future, schools will no longer be narrowly evaluated and measured based on standardized test scores but honoured as key centres for building communities, establishing

relationships, and inspiring students through an interconnected, meaningful process. In the future, schools will be mindful places of authentic inquiry and learning. As Ford Slack (1995) reflects on this idea of community as interconnected systems of being,

> Schools as communities—spiralling to interlink with other communities—require the reciprocal processes that enable participants in communities to construct meanings leading toward a common purpose. (p. 159)

Communities function as interconnected webs built through relationships, and collaboratively work together to "prepare our children for tomorrow's world" (Alberta Education, 2012, p.39). Communities are the basis for both our ecosystems and our social systems, and this insight guides our current vision of the future of education. The researcher is aware that this is difficult work that must be undertaken authentically, necessitating a common vision that holds between all the stakeholders in the education process. There will be disagreements, fractures and mixed voices as we strive for a common understanding. However, conversation and compromise is what drives change in learning organizations as we work together towards a common understanding. We do this work as a unit, because each stakeholder is a key part of the community. As Ojibwa elder Nadine Chase eloquently states,

> You ask me how I understand the world *community*. I think you are ready to hear my answer. Communities are not what you think. If you take time to watch nature you will understand community. The moose up the road lives in community with the Wolf; and the Eagle in community with the Dish—but they do not always agree, and sometimes one sustains the other by feeding their young. People are no different—we just have two legs. Our brain sometimes misinforms us—we think we are the community instead of understanding our part in the many communities. (Lambert et al, 1995, p. 159)

We are all a part of a greater whole, working towards creating a sustainable future. We do not always agree but we can still share a common vision that is open to process and possibilities. The work of teachers is difficult, and requires the support and commitment of the whole community.

Mindful Teaching and the Review of the Teaching Quality Standards Policy

In the province of Alberta, Ministerial Order (#016/97) pursuant to Section 25(1) (f) of the School Act presents a framework for the Teaching Quality Standard. All teachers are expected to meet the Teaching Quality Standard throughout their careers. This order acknowledges the fact that each teaching situation is different and is in constant change, and that a reasonable judgement must be exercised in order to determine whether the Teaching Quality Standard is being met in a given context. As the order states, "Quality teaching occurs when the teacher's ongoing analysis of the context and the teachers decisions about which pedagogical knowledge and abilities to apply result in optimum learning by the students" (Ministerial Order #016/97). Teachers who hold a permanent professional certificate must demonstrate the knowledge, skills and attributes (KSA) outcomes in order to meet this standard. The following chart summarizes the KSA outcomes with regards to the quadrants of the Integral Model.

Table 7. Teaching Quality Standards in the Integral Model

Upper left – Mindfulness and Self (I)	***Upper right – Mindfulness and Cognitive Learning (It)***
-Teachers' application of pedagogical knowledge, skills and attributes is based on the ongoing analysis of contextual variables -Teachers understand that students bring preconceptions and understanding to a subject -Teachers are respectful of students' human dignity and seek to establish positive professional relationships with students characterized by mutual respect, trust and harmony -Teachers gather information about student learning needs and progress. -Teachers are career-long learners and guide their actions by their overall visions of the purpose of teaching.	-Teachers' analysis of contextual variables underlies their reasoned judgements and decisions about which specific pedagogical skills and abilities to apply in order for students to achieve optimum learning -Teachers know that there are many approaches to teaching and learning -Teachers appreciate individual differences and believe that all students can learn, albeit at different rates and in different ways -Teachers engage in a range of planning activities -Teachers create and maintain environments that are conducive to learning -Teachers translate curriculum content and objectives into meaningful learning activities -Teachers apply a variety of technologies
Lower Left – Mindfulness and Storytelling (We)	***Lower Right – Mindfulness and Systems thinking (*Its)**
-Teachers recognize that they are bound by a standard of conduct expectant of a caring, knowledgeable and reasonable adult who is entrusted with the custody, care and education of students or children -Teachers strive to establish candid and ongoing lines of communication with students, parents, colleagues and other professionals, and incorporate information gained into their planning	-Teachers understand the legislated, moral and ethical frameworks within which they work. -Teachers function within a policy-based and results-oriented education system authorized under the School Act and other legislation -Teachers understand the subject disciplines that they teach -Teachers understand the fluidity of teaching and learning.

-Teachers establish and maintain partnerships within their schools, homes and communities	

Review of Calgary Board of Education Results for Student Achievement Policy

The Calgary Board of Education Results policies consist of statements of outcomes for each student in each district. Based on the philosophy of *personalization of student learning* and the principles of *Universal Design for Learning*, these outcomes are designed to focus on the individual learner. This is in alignment with the first principle of *Inspiring Education,* which emphasizes that education should be learner-centred. There are 4 key pillars to this philosophy and one central statement, which is referred to as the *Mega Result statement*:

1. Academic success – each student, in keeping with his or her individual gifts and abilities, will complete high school with a foundation for learning required to thrive in life, work and continued learning. They will achieve this at individual and appropriately challenging levels
2. Citizenship – each student will be a responsible citizen
3. Personal Development – each student will actively identify and develop individual gifts, talents and interests
4. Character – each student will demonstrate good character

   Mega Result – each student, in keeping with his or her individual ability and gifts, will complete high school with a foundation of learning necessary to thrive in life, work and continued learning.

The focus of the key pillars is on the individual learner, differing from the standardized industrial model. The key pillars emphasize mindful relationships between teachers and learners, focusing on the unique needs of each learner based on best practice and current knowledge of cognitive process. The vision depends upon teachers being present and paying attention to what

is required for each particular learning context. The specifics of this vision can be summarized below in the Integral framework.

Table 8. Calgary Board of Education results for student achievement

Upper left – Mindfulness and Self(I) -Read for information, understanding and enjoyment -Understand the responsibilities of citizenship -Respect and embrace cultural diversity -Identify and develop individual gifts, talents and interests -Love learning -Be a confident and autonomous individual -Self evaluate, set goals and strive to improve -Develop the character to do what is right, act morally with wisdom, and balance individual concerns with the rights and needs of others	***Upper right – Mindfulness and Cognitive Learning Science (It)*** -Understand the scientific method, the nature of science and technology, and their application to daily life. -Understand and demonstrate competence in using information technologies -Be a critical and creative thinker -Develop resiliency to overcome failure -Develop and maintain a healthy lifestyle
Lower Left – Mindfulness and Storytelling (We) -Write and speak clearly and accurately and appropriately for each context -Understand and appreciate literature -Have the opportunity to learn other languages in preparation for participation in the global environment -Know the history and geography of Alberta and Canada -Participate in developing and maintaining our Canadian civil, democratic society -Develop the skills necessary to work and communicate effectively with others -Demonstrate a commitment to make a difference	***Lower Right – Mindfulness and Systems thinking (*Its)** -Understand and use knowledge of mathematics to solve problems -Understand the physical world, ecology and the diversity of life -Understand political, social and legal systems within a global context -Actively contribute to making a better local and global community -Demonstrate the ability to adapt to changing environments

The student achievement results strive to make learning as unique as every student. The outcomes are reflective of the teaching quality standards established by Alberta Learning and establish a solid framework for the requirements of teaching mastery in the province of Alberta. A clear alignment, based on the needs of the student, is present between *Alberta Learning* and the *Calgary Board of Education.*

Review of The University of Calgary Undergraduate Education Program Policy

The University of Calgary piloted the new Bachelor of Education Program in 2011. The program recognizes that "teaching is a professional activity that involves particular characteristics, situational-contextual factors, legal and ethical obligations, approaches to teaching and student performance, collaboration, passion and commitment" (Bachelor of Education Handbook, 2011, p. 6). The aforementioned characterization is informed by both an internal and external review of the program itself, The Alberta Ministry of Education *Teaching Quality Standard*, and the 12 principles of initial teacher training recently developed by the Association of Canadian Deans of Education. The chart below summarizes the elements of an effective teaching program.

Table 9. The 12 principles of initial teacher education in the Integral model.

Upper left – Mindfulness and Self (I)	***Upper right – Mindfulness and Cognitive Learning Science (It)***
-Promotes diversity, inclusion, understanding, acceptance and social responsibility by continuing dialogue with local, national and global communities -Provides opportunities for candidates to investigate their practice -Supports thoughtful, considered and deliberate innovation to improve and strengthen the preparation of educators	-Engages teachers with the politics of identity and difference and prepares them to develop and enact inclusive curricula and pedagogies -Ensures that beginning teachers understand the development of children and youth and the nature of learning -Ensures that beginning teachers have a sound knowledge of subject matter, literacies, ways of knowing and pedagogical expertise
Lower Left – Mindfulness and Storytelling(We)	***Lower Right – Mindfulness Systems thinking (*Its)**
-Demonstrates the transformative power of learning for individuals and communities -Encourages teachers to assume a social and political leadership role -Cultivates a sense of the teacher as responsive and responsible toward learners, schools, colleges and community	-Envisions the teacher as a professional who observes, discerns, critiques, accesses and acts accordingly -Involves partnerships between the university and school, interweaving theory, research and practice -Supports a research disposition and climate

The Bachelor of Education model has a unique focus on teachers as both experts of learning and as researchers. They are engaged in (1) learning about learning, (2) their respective specializations, (3) contemporary contexts, (4) teaching and learning communities, and (5) ethical action. The semesters in the program can be summarized through the 4 quadrants of the Integral model:

Table 10. Semesters of the B.Ed program summarized through the AQAL quadrants.

Upper left – Mindfulness and Self(I)	***Upper right – Mindfulness and Cognitive Learning Science (It)***
-Field experience 408 – Professional development and lifelong learning	402 – Principles of Educational psychology 406 – Individual learning: Theories and Applications
Lower Left – Mindfulness and Storytelling (We) 404 – Literacy, language and culture	***Lower Right – Mindfulness in Systems thinking (*Its)** 401 – Issues in teaching and learning 403 – Pragmatics of teaching and learning 407 – Diversity in Learning -Integration seminars

The specialization course should be part of all 4 quadrants of the Integral model, as the disciplines do not exist in isolation but are part of the whole system. In addition to the Undergraduate program, eight Alberta school authorities have joined the Faculty of Education in striving for innovation through research-active inquiry and practice in the field. This development formalizes what may actually already be occurring in schools: building the link between theory and practice. It puts the teacher in the role of the researcher, establishing classrooms as living, learning laboratories where "high quality intellectual work" is "grounded in knowledge, concepts and perspectives of academic, professional, or applied technical disciplines" and is "directed to understanding issues, problems or questions of significance beyond classrooms and schools" (Newmann, p. 2).

Conclusion

This section links the four quadrant perspectives on mindfulness and Self, mindfulness in cognitive learning science, mindfulness in storytelling, and mindfulness in system policy.

Socrates taught that the love of wisdom is dependent on the art of thinking, and that to be able to acquire any type of wisdom one must first engage in deep and reflective thought with regards to the Self. Self-reflection of this sort requires a type of open space, a mindfulness that creates room for possibilities. This engagement consists in our awakening to our surrounding events and activities in order to allow us to live fully in the present moment. To facilitate true learning, we must emphasize the importance of these open spaces in order to "create conditions in school that enable students to pursue what is distinctive about themselves; to retain their personal signatures, their particular way of seeing things" (Eisner, 2002, p. 581). We need to focus on the learner, allowing each child, and their teachers, to uniquely thrive and grow.

This is a noble, but also extremely complex, vision whose realization will require significant work and commitment by all stakeholders. Living up to our vision will prove a serious challenge, as many still subscribe to outdated educational narratives based on defining educational moments, learning theories, and personal beliefs about learning. We still hold to our God Ford and the efficiency model, so the complexities involved in the organizations and systems make revising the principles very challenging work. Jardine (2012) reminds us;

> We should...have no illusion. Free spaces are rare and hard won, and learning to live well within them is hard work that requires stillness, generosity and perseverance. (p. 8)

The real work is not in the writing and exploring of these visions from a research or theoretical framework, but in their actual implementation in the classroom setting. The question of *how do*

we do this in our current educational context is at the heart of this research. *How can we make this vision a reality in the classroom of today?* Taking the time to let this vision live and breathe in our classrooms will require patience, stillness and reflection, all of which are required for the acquisition of wisdom. It will require letting go of some of the things that were considered critical in the past in order to allow open space for new possibilities to emerge. Implementation of a new vision for teaching and learning will also require grounded evidence-based research into the praxis of effective and authentic teaching.

The real work involves an exploration of how the brain undergoes the learning process, an understanding of the amygdala and the significant role that emotions can play, and a type of *awe* with regards to the potentials of neuroplasticity. This is a *brave new world* and an inspiring time to be an educator. There is so much to learn about the brain and its ability to modify itself based on our experiences of the world. Our emotions sometimes make it feel like it is hard to breathe, overwhelming us and leaving both students and teachers with feelings of panic. We need to remember that we are all human, that our cognitive labyrinths are complex and that we need to work together if we are to come to higher levels of understanding and insight and begin "looking at the brain as an embodied system beyond its skull case, and actually making sense of the intimate dance of the brain, the mind and our relationships with one another" (Siegel, 2010, p. 44). Teaching does change the physiological structure of our brains, and "seeing our minds clearly helps us embrace that humanity within one another and ourselves" (Siegel, 2011, p. 37). Are we, as educators, willing to reclaim time to breathe and understand our individual and collective interwoven stories? Is it even possible in this rapidly changing and evolving world, or is this vision simply a dream doomed to burst, leaving a void of shattered souls and broken systems?

We live in a storied universe and we see our world through those stories. What will the future story of education be and how will we understand it? Hasebe-Ludt, Chambers and Leggo (2009) reflect on the power of myth to help us understand the ultimate meaning of our human experiences:

> But it is myth that has helped humans grapple with the ultimate meaning of human experience. Thus the answer to the questions of who we are, how we come to be who we are, and where we come from is not a simple aggregate of facts, a compilation of events that occurred in historical time. These … require a transcendence of logic and fact. (p. 41)

Deeper thinking about the interconnected meaning of our human lives has the potential to inspire engaged and ethical thinkers who are then capable of contributing to their world in greater ways. Education has a duty to impart a sense of authenticity—a genuine understanding of how things are in the real world of today and how this understanding impacts our communities.

Each of our stories exists in a relation to the stories of others, as all things of the world are interconnected. Together, our stories form complex communities filled with different perspectives, ideologies, dreams and desires. Lambert et al. (1995) reflect on communities in the following way:

> Community is part of a social ecological construct that might be described as an *interdependent* and complex web of reciprocal relationships *sustained* and informed by their purposeful actions. Complexity is manifested by the *diversity* of the systems; the more diverse, the more rich and complex. Such communities are flexible and open to information provided through feedback *spirals*, as well as unexpected fluctuations and surprises that contain possibilities. (p. 161)

These interdependent webs create and inform our educational institutions. As a researcher I am seeking to connect the dots and discover new ways of teaching, knowing and learning based on differing perspectives and possibilities. From systems-thinking to poetry, we seek to link the ideologies of our humanity to our role in the ecosystem: the artist and the scientist work together to understand the interwoven strands of the entire System through the stories of our lives. This is a process that requires mindfulness and an understanding of the interconnectivity of life.

The review of the literature demonstrates that the research undertaken in this study is original and the research question has not been addressed in an interconnected way. As Wheatley (2002) reflects on her unique contribution to the whole, "most cultural traditions have a story to explain why human life is so hard, why there is so much suffering on earth. The story is always the same—at some point in our human origin, we forgot that we were all connected. We broke apart, we separated from one other." (p. 114). This research seeks the story of connection between the heart, the head and the spirit, bringing together the disconnected bits of knowledge into a wholeness of possibility and hope which can best be expressed through poetry;

Disconnected bits of knowledge
No longer stuffed into the disembodied heads
Seeking interconnectivity
And interwoven threads

Swirling, linking, twirling
The complexity of the process
Neurons firing, wiring, pruning
Developing as a whole

Teacher and student together on a journey
Taking time to observe and imagine the world
Exploring our stories, written and oral
Listening to the beat and steady pattern of our hearts

The slow and steady musical rhythm
Mirrored by the breath
Leading the way to mindfulness
To possibilities and hope

Each individual brain unique and wonderful
Each child with a special hope
Growing daily with the promise
Of what may lie ahead

Learn to trust the process
See all the possibilities patiently waiting
Teaching, learning, growing mindfully
Together into our future

Chapter Summary

The literature reviewed in this chapter was presented in four thematic sections, all relating to the topic of mindfulness and curriculum and learning. The four sections are, (1) mindfulness and Self, (2) mindfulness and cognitive learning science, (3) mindfulness and storytelling, and (4) mindfulness and systems complexity. The literature review demonstrates that among scholars there is a growing awareness of the complexities of teaching praxis, which involve an understanding of both the ontology and the epistemology of the teacher.

Chapter Three: Conceptual Framework and Methodology

Introduction

In this chapter I report on how narrative inquiry was chosen as a research methodology and how the Integral model as a conceptual framework addresses the major research questions. I was seeking a methodology whereby "the sense of the whole is built from a rich data source with a focus on the concrete particularities of life that create powerful narrative tellings" (Connelly & Clandinin, 1990, p. 5).

This study of the role of mindfulness in curriculum and learning seeks the particulars of the interconnected lived experience of nine participating teachers. Through sharing their interconnected stories, the participants were able to explore the role of mindfulness in curriculum and learning in a way that is meaningful and relevant as a "collaboration between researcher and participants, over time, in a place or series of places, and in social interaction with milieus" (Clandinin & Connelly, 2000, p. 20).

Ken Wilber's *Integral model, or All Quadrants and All Levels (AQAL)* (2000, 2006) provided a framework for this study, with four different perspectives or lenses: the mindful instructional leader, mindfulness and its connection to current learning science, the role of storytelling with regards to mindfulness, and current system policy direction. Each of these perspectives must be given consideration with regards to the research question and the data gathered. Since this research is seeking a nexus between the humanities (contemplative practice and storytelling) and the sciences (learning science and systems thinking), AQAL was an obvious implement, as it can sufficiently address both the artistic and scientific sides of mindfulness in curriculum and learning. With this alignment of art and science in mind, this chapter on research methodology is divided into the following two parts:

1. An introduction to Wilber's integral model and AQAL as a framework that addresses the research question. This will be followed by an account of my own attempts to determine a research method that would adequately address the different perspectives required in the research question. This exploration is presented as an auto-ethnographical reflection of my own "research journey" as a doctoral student seeking to understand the various methodologies and the roles that they play in the research process.
2. A design of the research, based on Integral theory (including limitations) and a discussion on how the data were collected and analyzed to explore all the perspectives required to examine the research question.

Wilber's Integral Model and AQAL Framework

Wilber's Integral Model (Esbjorn-Hargens, 2006b, 2009; Martin, 2008; Wilber, 2000, 2000a, 2006; Wilber, Patten, Leonard & Morelli, 2008) is suited to this research question because of its comprehensive nature: in that it serves as a model of different perspectives, the framework aligns with our original definition of mindfulness as being open to what is needed and required depending on each specific contextual situation. Wilber believed that this radically different framework offers a mode to study human experiences in a post-modern research context. Unlike other traditional frameworks, the Integral model does not bracket the subjectivity inherent in the inquiry process, thus preserving a unique lens for exploring differing perspectives. As summarized by Yuen (2013) the underlying epistemology of Wilber's' Integral model includes the following:

1. Every perspective discloses a unique window to reality
2. All perspectives form an integral conference with reality

3. An investigation of only a partial collection of the perspective would compromise the integrality of the phenomenon
4. The mode of inquiry is to seek and embrace divergent paths towards the truth (p. 51)

As this research seeks to explore multiple perspectives of a complex question, the use of the integral model became an obvious choice as it allows for different realities to emerge and coexist. The Integral approach (and the AQAL map) is an attempt to take everything that various cultures have to tell us about human potential in order to "create a composite map" (Wilber, 2006). With the Integral model, "we are able to facilitate and dramatically accelerate cross-disciplinary knowledge, thus creating the world's first integral learning community" (Wilber, 2006). The ability to understand multiple perspectives and possibilities is a critical component of current educational context with regards to system work, the personalization of student learning, and ways to balance and transform lives. By considering each perspective, each angle of consideration, we are able to see not only the parts but the whole.

The framework offers a unique edge towards initializing a critical change in the cycle of educational paradigms. As Esbjorn-Hargens (2006) reflects, "the world has never been so complex as it is right now - it is mind boggling and at times emotionally overwhelming" (p. 1). The current ecological turn of education is fuelled by new findings about learning, particularly neurology, which emphasize a focus on student engagement, personalization, inclusion and equity. The integral framework is what is required if we are to shift from the linear factory-type models of inquiry into a more holistic process that honours the complexity of our interconnected world.

I have used the four quadrants to examine the research question from the following perspectives: philosophical, cognitive, social and cultural, and systems complexity. The need to

incorporate all the quadrants of the AQAL model into this study is critical, as "AQAL functions as a kind of *reality mapping technology* that shows how everything fits together and makes sense" (Wilber et al., 2008, p. 27). If we are moving towards a better understanding of the interconnected systems of education, based on evidence and practice, we must be willing to recognize the value of the research framework and the ability to explore multiple perspectives when seeking a unified understanding of complex questions.

The Quadrant as the First Organizing Element of AQAL

Integral theory consists of five basic elements: quadrants, levels, lines, states and types, collectively known as *AQAL*. The first and most fundamental element of the Integral model is the quadrant.

The four-quadrant approach inquires about a phenomenon from four different perspectives: individual interior (UL), exterior individual (UR), interior collective (LL), and exterior collective (LR). Esbjorn-Hargens (2006a) describes the quadrants as the "basic perspectives an individual can take on reality" (p. 5). We can inquire into the role of mindfulness in curriculum and learning by consulting these four distinct perspectives because "the quadrants provide a particularly helpful lens for the researchers in that the left hand and right hand quadrants are associated with qualitative and quantitative methods respectively" (Esbjorn-Hargens, 2006b, p. 84). In a quest to understand the research question, the four-quadrant perspective is comprised of the following:

- The UL quadrant corresponds to the individual and personal beliefs about mindfulness from the first-person perspective.
- The UR quadrant corresponds to how individual instructional leaders incorporate mindfulness into their curriculum design.

- The LL quadrant corresponds to how storytelling can contribute to the praxis of mindful teaching and the establishment of a collaborative learning community.
- The LR corresponds to the system role in the research question with regards to how mindfulness is related to current policy mandates of education for teachers in Alberta.

The research study assumes that the four *co-arising* perspectives can provide rich and detailed data, allowing us to explore the role of mindfulness in curriculum and learning. Specific details of the research questions are below summarized within the Integral Model framework:

Table 11. Research Questions in the Integral Model Framework (Wilber, 2000, 2006)

Upper left – Personal Beliefs (I) **How do teachers personally define mindfulness? (1)** 1 a) What is the teacher's understanding of *mindfulness*? 1 b) How do teachers implement mindfulness in their own personal and professional practice? 1 c) How do teachers understand mindfulness in the classroom context? 1 d) Why do teachers use mindfulness in their teaching?	***Upper right –Current brain research on learning (It)*** **How do teachers incorporate mindfulness into their curriculum design? (2)** 2 a) How do teachers interpret the curriculum mindfully and design their learning environments with sensitivity to individual learners' needs? 2 b) Are lessons designed and assessed with regards to students' attainment of mindfulness? 2 c) Do teachers understand the cognitive, emotional and physical impact of mindfulness in teaching and learning?
Lower Left – Storytelling (We) **Can storytelling be used to build a common vision in the learning community? (3)** 1 a) What is the impact of life writing with regards to building a common vision? 2 b) Can storytelling be used as a tool for understanding the role of mindfulness in curriculum and learning? 3 c) How can life writing be utilized in professional development?	***Lower Right – Systems Roles (*Its)** **How do mindful teachers understand current system policy and how do they communicate it to others through narrative? (4)** 4 a) What is the connection between mindfulness and Inspiring Education? 4 b) How does mindfulness align with the provincial direction of personalizing student learning? 4 c) How does mindfulness align with the current vision of the Bachelor of Education program at the University of Calgary?

Levels, Lines, States and Types

Levels and *lines* are the structural features of the model, which help to disclose the complexity of phenomena contained in the quadrants. Bohac Clarke (2012) described the levels and lines as follows:

> Wilber mapped out a progression of developmental levels within each quadrant, and suggested two distinct overall tiers of development, where a fundamental shift in perspective would result in a developmental leap from tier one to tier two. For ease of use, he assigned each level a colour as a shorthand descriptor of the developmental characteristics. Thus, the red level can be characterized as a "might is right" survival mentality, while green is a "global cooperative" mentality. Wilber identified developmental "lines" (capacities or intelligences) running through each quadrant and level. For example, in the individual "Upper" quadrants, such lines include cognitive, emotional, kinesthetic, interpersonal, moral, and so on. (p. 157)

According to Esbjorn-Hargens (2009) these *levels* of complexity are significant as "they represent many potential layers of development in each quadrant, and practitioners could gain valuable traction by aiming their efforts at the appropriate scale (level) and thereby finding the key leverage point" (p. 9).

States are "temporary occurrences of reality," while *types* refer to "the variety of styles that aspects of reality assume in various domains" (Esbjorn-Hargens, 2006b, p. 84). States are variable, flexible and changeable depending on the context. The use of AQAL thus allows the research question to be considered with regards to the current educational context and all its varying dimensions. It allows for diversity of perspective and opens the research to the consideration of a greater community of stakeholders. To reach a common understanding of a

vision, all stakeholders need consideration. The research framework is then in alignment with the current educational philosophy of Universal Design for Learning, which emphasizes multiple ways of representation, engagement and expression depending on the level and state.

Integral Methodological Pluralism (IMP)

Integral methodological pluralism calls on researchers to use a variety of methods that are appropriate for each quadrant. This pluralism is critical to the research question, as each perspective discloses a unique window to reality through the choice of methods consistent with that perspective. IMP allows the researcher to seek and embrace different paths towards the truth, moving away from the standardized one-right-answer formula. Through integral methodological pluralism,

- A unique window to reality is disclosed with each perspective, adding richness to the data collection;
- An integral conference with reality is formed as a result of the combination of all the perspectives;
- The process allows a mode wherein the researcher can seek and embrace divergent paths towards the truth.

Explorations of Narrative Inquiry as Research Methodology

The process of narrative inquiry as described here is informed by the works of Hasebe-Ludt, Leggo & Chambers (2009), Chambers, Hasebe-Ludt, Leggo and Sinner (2012), Connelly &Clandinin (1992, 1996, 2000, 2012), Fowler (2006), and Richardson (1996, 2007). The choice to use qualitative research was evident, as this is a human subject dealing with human thoughts and feelings and not something scientifically measurable. I knew that I needed to listen to the voices of others and combine those insights with my own understanding and personal

experiences of mindfulness, curriculum and learning. The choice to use narrative appeared logical. But as I realized there are many ways to tell a story, each being as unique as our fingerprints and our individual brains, poetic inquiry as well as auto, duo and poly ethnography also called for my attention. The different forms of storytelling challenge us to see the world from other perspectives, making storytelling a useful counterpart to the comprehensive framework of the integral model's four quadrants. Pinar & Grumet (1976) challenge educational researchers "to look inside ourselves as well as outside, and begin to describe, as honestly and personally as we can, what our internal experience is" (p.3). For this reason I am seeking both the internal and external experiences of instructional leaders in the field. The root of this investigation lies in the *grand narrative of education,* whose blossoms are supposed to reach to the sun seeking creative new possibilities for the future. Everything I study, review and reflect upon shapes my Ontology and becomes part of my research. Hence, the next section of this chapter will be an autobiographical reflection on the process explored through the *research methodology quest*.

Research Methodology Quest

In the beginning
There were philosopher kings
Who spoke and discussed
The mind, heart and soul of humanity

In and out of the circular spiral we go
Moving between an understanding of the parts
And an understanding of the whole
Seeking the spinning spiral of knowledge

As human beings we are intuitive storytellers, and we use our stories to help us understand the world. Through the use of our language and the sharing of our stories, we can establish a common understanding of our human experiences. It is the key purpose of this study

to tap into the collected storied knowledge of the mindful instructional leader. This undertaking requires the collaborative effort of a professional learning community, for "by speaking, writing and doing autobiographical research, curriculum scholars and teachers become interpreters and translators of human experiences and provocateurs of individual and social change" (Hasebe-Ludt et al, 2009, p. 37). When teachers work together, exploring the process of education, they become invested in the outcome and real change can occur. Education is a rapidly morphing system, but we can demonstrate our ability to continuously adapt to the change cycle. Our personal and professional teaching narratives can be understood as a type of *currere*—a deep understanding of self and the practice, a "constant struggle to understand both the educational paths upon which we set to journey, and what that begins to offer in terms of understanding self, responsibility, and the work with which we have been entrusted" (Lund, Panayotidis, Smits & Towers, 2012, p. 2).

As ongoing change is a reality of the educational systems of today, things look much differently now than they did in the past. Current research on cognitive and learning sciences and the diversity of learning styles point to the need for a rapidly morphing teaching practice. By sharing our narratives and looking for a common story, which may be told in a diversity of ways, we can create a stronger unity made up of individual storytellers. Each individual will offer a type of life writing that will bring her into a stronger understanding of the whole community. As Hasebe-Ludt, Chambers & Leggo (2009) state, reflecting on the process of life writing: "when immersed in the act of writing and braiding we are distinctly aware how juxtaposing our narratives create a new text that is stronger and more complex than any of our individual stories" (p. 7). Investigating stories of the field, brought forth in their various styles and components, will help to create a greater understanding of the collective whole, as "humans

are storytelling organisms who, individually and socially, lead storied lives. Thus the study of narrative is the study of the ways humans experience the world" (Connelly & Clandinin, 2012, p. 2). This insight supports my personal epistemology that education is a process of authoring and re-authoring personal and social stories, as "teachers and learners are storytellers and characters in their own and others' stories" (Connelly and Clandinin, 2012, p. 2). Through practitioner research, focusing on reflection and memoir, this study hopes to recognize and bring together the many different realities and ways of knowing. As a result, we may find a common understanding that will be implementable and accessible to future professional development, since "Life narratives are the context for making meaning in school situations" (Connelly & Clandinin, 1990, pg.2).

Seeking the Stories

Listen to the story
A whole new world you shall see
See the legends of the past
Define your history

Seek for understanding as we dream
Once upon a time
Dream for days of hope and love
Create the vision within your mind

As teachers and instructional leaders, we can understand and give meaning to our practice by sharing our personal narratives (Connelly & Clandinin, 2012; Hasebe-Ludt, Chambers & Leggo, 2009; Lund, Panayotidis, Smits & Towers, 2012). For an authentic learning community to function, time needs to be spent developing the relationship bonds between the members of that community. The building of community is essential for organizational learning and change management. Noddings (1996) reflects that "too little attention is presently given to matters of community and collegiality, and that such research should be construed as research for

teaching" (p. 510). In current educational system change models the voices of the instructional leaders have been silenced: they find themselves "without voice in the research process and...find it difficult to feel empowered to tell their stories" (Connelly & Clandinin, 1990, p. 4). This disempowerment has resulted in a stagnation of growth for the profession as a whole. It is the objective of this study to find and celebrate the silenced voice of instructional leaders. Their empowerment and the inspiration that they will bring forth is required if we are to incite change in our system and rekindle a type of enthusiasm in the practice. This is not a quick fix solution, and its actualization will require us to set aside time to explore and reflect on the diverse possibilities. The question then becomes, are school systems willing to allow instructional leaders time to reflect? This study hopes to serve as an invitation for instructional leaders to learn, to become, to take time and listen to the breath. It is the assumption of this study that listening to the voices of these teachers working together in a collaborative learning community will lead us towards effective and inspirational organization change. As Wheatley (1992) reflects, "it would seem that the more participants we engage in this participative universe, the more we can access its potentials and the wiser we can become" (p. 65). As we all have different ways of realizing our own ontological framework and how it connects to our epistemology, it is an understanding of the process of self-understanding, at multiple levels, which guides this research. Connelly & Clandinin (1990) reflect on the ideology of growing through the narrative process:

> The central task is evident when it is grasped that people are both living their stories in an ongoing experimental text and telling their stories in words as they reflect upon life and explain themselves to others. For the researcher, this is a portion of the complexity of the

> narrative, because a life is also a matter of growth towards an imagined future and, therefore, involves retelling stories and attempts at reliving stories. (p. 4)

The ability to recognize and communicate one's story is critical in the process of discovering one's personal ontology. An understanding of ontology is critical, for it shapes the way we approach and understand epistemology. Professional development requires a type of research that will allow for the exploration of both being and knowing. A combination of theories of knowledge and theories of being will bring us to a deeper understanding of ourselves and our communities because, "while knowledge and skills are necessary, they are insufficient for skillful practice and for the transformation of the self that is integral to achieving such practice" (Dall'Alba, 2009, p. 1). It is this process of self transformation that this research is seeking to explore. This research is a collaborative effort, for "we can tell our stories together, but the voices are not necessarily singular. Both separate and together they illustrate how understanding lives in the dialectic of difference and the moments of congruence" (Lund, Patayotidis, Smits &Towers, 2012, p. 2). It is an effort that will honour the process of transformation, allowing me as the researcher to understand my own story while allowing other voices to be heard. As a researcher, and as an instructional leader, I am only one strand in this pattern and I desire to become part of the vibrant tapestry of mindful instructional leaders. I desire to "surrender my care of the universe and become a participating member, with everyone I work with, in an organization that moves gracefully with its environment, trusting in the unfolding dance of order" (Wheatley, 1992, p. 23). In honouring the process there will be a variety of data collection options for participants. As Connelly & Clandinin (1990) state:

> A number of different methods of data collection are possible as the researcher and the practitioner work together in a collaborative relationship. Data can be in the form of field

> notes of the shared experience, journal records, interview transcripts, other observations, storytelling, letter writing, autobiographical writing… (p. 5)

Some of the key considerations for this study are the collaborative nature required and the need to listen carefully and mindfully to the stories as they begin to unfold. Connelly and Clandinin (1990) refer to the narrative approach as a two-part inquiry agenda: "We need to listen closely to the teachers and other learners and to the stories in and out of classrooms. We also need to tell our own stories as we live our own collaborative researcher/teacher lives. Our own work then becomes one of learning to tell and live a new mutually constructed account of inquiry in teaching and learning" (p. 12).

My Autoethnographical Reflections

I don't know how it began or when
This journey to understand the jumbled pieces
Of the interconnected events of my life

Classroom teacher, storyteller, dream keeper
Mother of a child who struggles to breathe
Suffocating, drowning, brain cells screaming in seizure
My children and I struggling to become our stories

Long before I had my own biological children, I referred to my students as my children. When asked how many children I had I would often reply 150 - although in reality there were many more than that. In my years of teaching, I have come across many wounded souls seeking solace from a world that has shown no mercy. I realize now that my classroom had always been a sanctuary of sorts, regardless of whether I was teaching grade 7 or undergraduate students. Each individual learner had their story that they needed to understand, unpack and explore in unique personalized ways. This process of discovery requires time for contemplation and authentic reflection. Yet this kind of time is never present for us as our education systems are exhausted, caught in a frenzy to achieve higher and higher goals which are really not relevant

toward the survival of society. Many children are stressed out at an early age and as a result develop physical illnesses, which carry on into adulthood. In my classroom I have had children with depression, ADHD, stress, anxiety, colitis, and cancer, all trying to find a reflective space to sort out the embodied memories trapped within their physical spirit. In order to achieve any sort of progress, these children, and I as their teacher, need to live in the present moment, the here and the now, as "the real feeling of the present moment is the material reality of the children's lives, of their families lives, of all our lives sharing this earth home" (Seidel, 2006, p. 1905).

Hence the focus of this research on mindfulness in curriculum and learning was borne out of my own lived experience. With the arrival of my own children and their entry into the school system, this theme became highly significant and persistent. A few months into the first grade, my oldest child became seriously ill with a respiratory infection. His throat was swollen shut and he struggled daily to breathe as oxygen, the elixir of life, refused to feed his spirit. The deep and careful exploration of this part of my story has brought me to the upper right quadrant of the integral framework, focusing on cognitive learning science and the body. As a result of my research around the mind and body connection, I do believe that the stress of school contributed to my child's physical illness. As a result of this illness he was intubated in the ICU unit and lost all access to language for a few weeks. As his language was restricted, his story remained silenced and oppressed for many years, trapped within his body—which would respond violently in a multitude of physical manifestations. As Edward Bruner (1986b) states, we cannot understand our experience when we have no language with which to give it voice; and when we do not understand what we are experiencing, we are helpless when we attempt to communicate that experience to others. As a result of his illness Tristan lost both his oral and written language skills. This privation continued through his elementary years, as post-traumatic stress continued

to haunt him. Breathing complications, skin infections and seizures wracked his body as the embodied memories of anxiety and stress raced through his physical body. Each day his body spoke the language his mind could not, on some days screaming so loudly we wondered if he would survive. Somehow we needed to allow his trapped story to emerge from deep within him.

Finally, in an act of desperation, I handed him an iPad and asked him to tell his story. None of the traditional methods of storytelling had yet worked and my last resort was to try technology. Using the Dragon NaturallySpeaking program alone in his room with his memories and his embodied stress, the words finally tumbled out of his mouth and his story could finally be heard, if only by a piece of technology. For some reason he could not tell this story in the presence of others and needed to explore it alone. I sat outside his room and listened to the terror and anxiety tumble out of his mouth in frenzy. When he was finished he came out of his room, face awash with tears. We did not talk but simply embraced. Things slowly began to improve after that moment, although his symptoms have still not gone away. His language is still locked in many ways, and his anxiety is still present at school. The seizures and anxiety persist, so we work daily with mindful practice to soothe his mind and body, but somehow the initial release of his story began the healing process, and it is our hope that with continued mindfulness practice we will find the whole again. It was my son's story, deeply intertwined with my own, that inspired my desire to understand cognitive learning science and the link between the mind, the body and the story. Hence, I have developed the connection between cognitive learning science, the embodied experience, and the story teller. My investigation brought me to explore the current system change model and the relationship it may have with mindfulness. The four quadrants of The Integral model framework—mindfulness and Self, cognitive learning science,

storytelling, and systems complexity—are the strands that I seek to connect, because they are all a part of my story.

Life Writing – Autobiographical Reflections for Human Recovery

Can we write together?
Our stories we shall braid
A brand new brilliant tapestry
Emerging through the synthesis of souls

One writer, two writers, three writers, four
How many can we be?
The possibility leads the process
Each story opens a new history

Can you speak in poetry?
Will it open up your soul?
Or does your inner artist
Seek another portal?

Auto, duo, poly, collaborative
Ethnographic fields
Auto ethnographic collaborative poetic inquiry
Heidegger's language of the embodied soul

How can you tell your story?
What possibilities shall we unfold?
What learning opportunities will emerge
As our stories are braided together?

In a brilliant multi colored
Tapestry of teaching
Synthesis of systems
Tapestry of the Muse

The idea of the *teacher researcher* is critical to the exploration of the role of mindfulness in curriculum and learning, and thus to the establishment of authentic professional learning communities. Understanding and sharing my own story, in essence the act of *currere*—"an act of self-interrogation in which one reclaims one's self as one unpacks and repacks the meaning that one holds" (Norris & Sawyer, 2012, p. 13)—was critical to the *teacher researcher* process and

allowed me to arrive at my research question. However, the limitation of auto ethnography when exploring complexities of an interconnected system is that as a researcher I am too familiar with the data and I am influenced by my own biases, experiences and understandings. My story is too strong and personal to authentically allow the voices of others to emerge. In a collaborative process there must be a multitude of voices heard and represented in order to challenge pre-existing ideologies and come to a new and deeper understanding of the educational context that is being examined. With regards to the process of collaborative auto ethnographic research, Chang, Ngunjiri & Hernandez (2013) state:

> CAE allows researchers to benefit simultaneously from self and collective analysis. The juxtaposition of these two seemingly contradictory frames of reference, is useful to the researcher, as the inclusion of multiple voices and perspectives adds rigour to autobiographical interpretation. Several benefits can result from employing a CAE research method. …1) collective exploration of researcher subjectivity; 2) power-sharing among research participants; 3) efficiency and enrichment of the research process; 4) deeper learning about self and other; and 5) community building. (p. 25)

In educational systems we need to seek an effective way to establish an authentic learning community that evolves organically with a common understanding and vision. In *Provoking Conversations on Inquiry in Teacher Education*, Lund, Panayotidis, Smits & Towers (2012) reflect, "we can tell our stories together, but the voices are not necessarily singular. Both separate and together they illustrate how understanding lives in the dialect of difference and moments of congruence" (p. 2). Duo-ethnographic research allows for a coherent, evolving interactive process that opens the possibilities for poetry as method (Faulkner, 2009) and a/r/t ethnography (Irwin & Cosson (Ed.), 2004) as ways to tell and share the narrative story. Aligning

with the concept of Universal Design for Learning (Rose, Meyer, Strangman & Rapppolt, 2002), we are moving towards a Universal Design for research, which allows researchers to trust the process and explore their stories using multiple means of engagement, representation and expression. Just as there are many ways to tell a story, there are many ways for researchers to investigate and understand those stories. This research hopes to open up the parameters of data collection in order to allow stories to emerge in new and interesting ways. We can then determine the role of mindfulness in curriculum and learning through "life writing as a mode of educational inquiry, one where educators and learners may get a 'heart of wisdom' as they struggle with the tensions and complexities of learning and teaching, in challenging contemporary circumstances and in a variety of pedagogical locations" (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012, p. x.).

The Research Methods in the Integral Framework

This study explored the role of mindfulness in curriculum and learning by investigating (1) the experiences and personal beliefs of the teacher, (2) current research on learning, (3) storytelling, and (4) current policy and system mandates in the province of Alberta. The research study pursues the following inquiry:

- *Problem statement:* What is the role of mindfulness in curriculum and learning?
    1) (UR – Interior Individual) How do teachers personally define mindfulness? How do teachers implement mindfulness into their personal and professional practice?
    2) (UR – Exterior Individual) How do teachers incorporate mindfulness into their curriculum design? How are lessons designed and assessed with regards to mindfulness?

3) (LL – Interior Collective) How does storytelling promote a common vision in a learning community? What is the impact of life writing with regards to building a common vision? Can storytelling be used as a tool to understand the role of mindfulness in curriculum and learning and utilized in professional development?
4) (LR – Exterior Collective) How is mindfulness related to the current policy mandates of education for teachers in Alberta? Do instructional leaders account for or align their planning and use of mindfulness with current policy direction?

Methodology and Research Participants

Nine teachers from four districts explored the role of mindfulness in curriculum and learning. The process was as follows:

1. Initial interviews with the participants to establish the context of the research, the requirements of the participants and desired outcomes.
2. Life writing as an exploration of personal stories. This was done online. The online platform also allowed for different ways of representing their stories. There were four data collection points, and upon each written submission the researcher responded and reflected data back to the participants to confirm the validity of the interpretation:

    (a) *Teacher Life Writing #1:* Personal journey to Mindfulness. How do you personally define mindfulness based on your life story? (Upper left quadrant)

    (b) Teacher Life Writing #2: How do teachers incorporate mindfulness into their curriculum design? Specifically how do you use mindfulness in the classroom context? What does it mean to your own professional practice and your teaching? (upper right quadrant).

(c) *Teacher Life Writing #3:* How does the system impact mindfulness? What role does current system directions and policies play in determining your day to day activities in the classroom context? (lower right quadrant)

(d) *Teacher Life Writing #4:* What is the role of storytelling in mindfulness? Reflect on whether and how storytelling could be utilized to build a common vision in a learning community and to facilitate teacher professional development and learning (lower left quadrant)

3. Final focus group questions: teachers reflected on their personal and professional journeys, on mentoring, and on the implications for professional development

Table 12. Research Methods and Data Collection Point Summary

Upper left – Personal Beliefs (I)	***Upper right –Current brain research on learning (It)***
How do teachers personally define mindfulness? (1) 1 a) What is the teachers' personal understanding of mindfulness? 1 b) How do teachers implement mindfulness in their own personal and professional practice. 1 c) How do teachers understand mindfulness in the classroom context? 1 d) Why do teachers use mindfulness in their teaching?	**How do teachers incorporate mindfulness into their curriculum design? (2)** 2 a) How do teachers interpret the curriculum mindfully, and in turn design the learning environment with sensitivity to individual learning needs? 2 b) Are lessons designed and assessed with regards to students' attainment of mindfulness?
Lower Left – Storytelling (We) **Can storytelling be used to build a common vision in the learning community? (3)** 1 a) What is the impact of life writing with regards to building a common vision? 2 b) Can storytelling be used as a tool for understanding the role of mindfulness in curriculum and learning? 3 c) How can storytelling be utilized in professional development?	***Lower Right – Systems Roles (*Its)** **How do mindful teachers understand current system policy and how do they communicate it to others through narrative? (4)** 4 a) What is the connection between mindfulness and Inspiring Education? 4 b) How does mindfulness align with the CBE personalization of student learning? 4 c) How does mindfulness align with the current vision of the Bachelor of Education program at the university of Calgary?

Lived Experience Data from the Life Writing

Nine participants were asked to participate in a life writing exercise focusing on four key points:

1. How do you personally define mindfulness? (#1)
2. How do you interpret and incorporate the curriculum through the lens of mindfulness? (#2)
3. What are the effects of current educational policy on your curriculum design, goals and implementation? (#4)
4. What is the role of storytelling in mindfulness (#3)
5. Final closing activity on the process of exploring their personal and professional stories, and implications for professional development

In reference to their experiences, the participants were treated "as experts and the interviewer as the appreciative perceiver" (Morgan, 2011, pp. 17-18). In addition to the initial meeting and a closing activity, four life writing sessions with each of the participants will be conducted. The first meeting was to establish the overall research project. The first life writing session explored teaching philosophy and professional practice based on life experience. The second life writing session explored how mindfulness can be incorporated into curriculum design. The third life writing session was an exploration of the barriers perceived between an ideal philosophy and the current system policy in the province of Alberta. The final life writing prompt asked participants to reflect on the connection between storytelling and mindfulness, specifically with regards to teacher professional development. The final focus group consisted of the teachers' reflections on their personal and professional journeys with regards to the research question. Transcripts from all four life writing sessions were provided to each of the research participants to enssure the

collected data are accurate and trustworthy. The recruitment, data collection, and data management of the research study adhered to the regulations and guidelines of the University of Calgary research ethics board.

Data Analysis for Developing Themes

The data for this research include 1) initial interview questions, 2) four life writing exercises per research participant for a total of 36 stories, and 3) data from the final closing focus group. Recurring themes from different quadrants were significant to the interpretation of the data. The following criteria from van Manen (1990, pp. 87-88) was adopted with regards to theme:

- Theme is the experience of focus, of meaning, of point
- Theme is a form of capturing the phenomenon one tries to understand
- Theme is the needfulness to make sense, is the sense we are able to make of something, is the openness to something, and ultimately the process of intimate disclosure

Themes developed with regard to Morgan's (2011) reading procedure and van Manen's (1990) sentential analysis:

- *Reading procedure*. As with any process of interpretation, multiple readings took place to determine meaning. Pre-readings were used to" determine preliminary themes, which were galvanized through external supports from other places in the data and identified through re-readings." (Morgan, 2011, p.35)
- *Sentential analysis.* The next step of the process was to determine statements or phrases instrumental to the exploration of the role of mindfulness in curriculum and learning. These statements were then utilized "to make deeper sense of the themes that emerged." (van Manen, 1990, p. 93)

- *Developed Themes.* After the reading and sequential analysis process, themes developed, and each theme was presented as a written paragraph. The themes were then organized into the four AQAL quadrants to allow for greater understanding of the role of mindfulness in curriculum and learning.

Once the themes were identified, they were correlated with current brain research on learning as well as policy direction in the province of Alberta. This allowed us to explore the correlation between contemplative pedagogy and current cognitive learning science as well as establish a relation between the effects of storytelling on professional development and the aims of current system policy.

The interpretation of the data involved seeking the common knots of experience that emerged from the research participants' narrative stories. Narrative inquiry is a way of understanding experiences, involving a collaboration between the researcher and the participants over time in a series of places. As Clandinin & Connelly (2000) reflect, "if we understand the world narratively, as we do, then it makes sense to study the world narratively. We then begin to reflect on the whole of social sciences with its concern for human experiences" (p. 17). Therefore, as narrative inquiry concerns stories lived and told, educational experiences should be studied narratively.

As a research method, narrative inquiry encompasses the personal, practical and social realms. First, narrative inquiry begins with the researcher's experience. My personal experience was a powerful catalyst of this project, which is why I have included my auto ethnographical inserts in the dissertation. My journey's "call to action" began with the story of Tristan in grade one, which lead me to the later inquiry work that prompted me to pay attention to the much larger context. From here I acknowledged the importance of a shift in the practice of education.

As a practical justification for using narrative inquiry, this research hopes to help shift educational practice from the stress-ridden factory model of education to a more holistic and mindful structure. In this new model, teachers will be engaged in the process of reflection and contemplation as they seek well-being for their students and themselves. The research is an attempt to draw on teachers' experiences in order to understand what teachers do, and how we can work together to shape that experience in more holistic ways. Through narrative inquiry we can diagnose the shortcomings of the current model of education and, through interpretation of this data, propose a series of remedies. This leads to the social justification of using narrative inquiry, as the experiences of the participants point to the role of mindfulness and its implications for the learning sciences, as well as the importance of sharing our experiences through our stories. The end result of this research was a framework for future professional development and pre-service teacher training that is reflective of the vast complexities of our current educational landscape. If we are to obtain well-being for both the teacher and the learner, we need to be present and pay attention to all the different, yet interconnected, perspectives that form the larger whole of the educational narrative of today.

The development of this framework required me, as the researcher, to consider new ideas, possibilities, different research methods and a variety of perspectives. The ability to consider multiple perspectives has been a missing link in educational research, and therefore my research aims to expand upon the teaching methods of the past. Narrative asks us to look at our experiences and how those experiences shape our understanding of Self, of others, and of the world around us. In the interpretation of text, both the writer and the researcher are involved in the process. The various stages of the interpretation of the life writing were conducted through multiples readings, seeking the strands of common experience and identifying reoccurring

patterns, or knots, in the experiences of the research participants. Once the common motifs of the participants' experiences were identified, the challenge was to determine how to present them in a framework that is relevant and meaningful for professional development and future learning.

Traditionally, narrative looks at the temporal, social and locational categories. As a researcher, I wanted to move beyond this model to expand into the inner and outer perspective of the educational landscape. The Integral Model (2000, 2006, 2008) provided this expanded framework, focusing on the different yet interconnected perspectives of the educational landscape. Storylines that interweave or interconnect, tensions that emerge, and continuities and discontinues that appear are all possible codes (Clandinin & Connelly, 2000) to analyze in order to identify common experiences and different perspectives. I looked for the patterns, narrative threads, tensions and themes within or across an individual's experiences and in the social setting. Once I identified these common experiences, I then used the Integral Model (2000, 2006, 2008) to organize the final data into a holistic framework that incorporates multiple lenses and perspectives.

Conclusion

The question of the role of mindfulness in curriculum and learning has addressed me in many ways. My various positions as instructional leader, teacher, coach, mentor, and mother have provided me with personal insight into this investigation, but the question concerns something much deeper than my own personal experiences—something that requires exploration as a community. What do we need to do as educators in order to impart to learners the key to living a happy, healthy and fulfilling life? Wilber et al, (2013), in the book *Integral Life Practice- A 21st Century Blueprint for Physical Health, Emotional Balance, Mental Clarity and Spiritual Awakening,* suggests we can live a fulfilling life by "breaking with tradition, while still

drinking deeply from the wisdom of the past" (p.4). Current educational context requires a break from traditional pedagogical practice while still recognizing the acquired wisdom of our past.

Our key purpose in education, as stated in the Calgary Board of Education Results Statement (2012), is to "develop our youngest citizens into well rounded adults and life-long learners who will make positive contributions to our community and our society as a whole" (p.2). This vision requires education to be a "living practice" (Friesen & Jardine, 2009, p.2) responsive to change and receptive to a variety of perspectives. We are then required to ask some key questions and be open to the differing perspectives, which will arise. The following questions are asked by Wilber (2013) with regards to creating an Integral Life Practice:

- What are the most effective and essential practices of ancient traditions?
- What new insights into practice are offered by the most current discoveries?
- How can we find patterns that connect the most diverse insights and methodologies?
- How can we use this knowledge to promote a lifetime of growth and awakening?

(p. 11)

Using these questions as a template, the following questions were developed to support the ideology of an *Integral Educational practice* that supports this research.

- *What is the role of contemplative pedagogy and self-realization in education?*
- *What new insights into learning are offered by current discoveries in brain research and learning sciences?*
- *How can we find patterns in our stories and systems that connect the most diverse insights and methodologies?*
- *How can we use this knowledge to promote a lifetime of growth and awakening in our educational systems?*

The goal of using integral theory to investigate the role of mindfulness in curriculum and learning is to gain an understanding of "a myriad of dimensions or reality as it reveals itself" (Esbjorn-Hargens, 2006a. p.22). *Integral narrative life writing* is an authentic framework for studying the multiple perspectives of this research question in the current educational environment in Alberta, as "our world has moved in a new direction and education must keep step" (Inspiring Education Discussion Paper, 2010, p.1). It is my hope that this research on the role of mindfulness in curriculum and learning will help bring us to a new understanding of education in a true evolutionary spirit.

To live in an evolutionary spirit means
to engage with full ambition and without
any reserve in the structure of the present,
and yet to let go and flow into a new
structure when the time has come

Erich Jantsch

Chapter Summary

This chapter provided a detailed review of the study's research framework and the journey undertaken by the researcher to arrive at the research methodology. The subject was explored via traditional format and autobiographical poetic inquiry, showing the effectiveness of using both art and science to frame a research question. Lastly, this chapter summarized the methodological approach undertaken. In Chapter Four, the data will be explored and documented. The three data collection points will be triangulated to determine common themes, which can then be explored for implementation into professional development.

Chapter Four: Findings – Exploring the Participants' Stories

In this chapter I outline the process undertaken in the research. This is followed by the presentation of the background contexts of the research participants. Finally, key findings from the life writing and focus group activities are introduced.

Understanding the Research Process

The data were gathered and pieced together through conversations, coffee dates, Facebook chats, various other forms of communication, and through the use of the d21 platform. A personal research journal was used to note my own findings and observations as I attempted to "keep an open mind, remembering that qualitative research is all about discovery" (Bloomberg & Volpe, 2012, p. 135). The process of discovery was at the heart of the research, and part of the quest for mindfulness. To encourage my research participants to reflect, explore and discover, I needed to likewise be open to this journey via the life-writing process.

The research protocol is connected to Freire's concept of "conscientisation," a word that first came into usage at the Institute of Brazilian Studies in the late 1950s. From an etymological perspective, to conscientise is *to render conscious*. Hence, the word denotes an awakening of, or an increase in consciousness. As the process of mindfulness involves the awakening of consciousness to a higher state of Being, the concept of conscientisation was invaluable to the data gathering process. By participating in this awakening, I was able, as the researcher, to come to a deeper understanding of the experiences, working conditions, and environments of all those involved in the research process. Together, we explored the concept of being human and what its implications are with regard to teaching and learning in our current context. The relationship between humans and their world was explored through various life writing exercises, and

through my own personal journal (excerpts italicized) as I worked through the process of exploring, interpreting and analyzing the research data.

Crotty (1998) reflects on the concept of conscientisation with regards to the work of Freire:

> Freire links conscientisation to the relationship between humans and their world, to the essentially historical character of human being, and to 'praxis' as a form of reflection that stems from, and remains indissolubly wedded to, active human intervention in reality. In short, he brings together his notion of conscientisation and takes his understanding of what it means to be human. (p. 149)

The understanding of *praxis* as a form of reflection was important to the research process. Mindfulness, as a teaching praxis, requires a process of reflection both inward and outward. It requires us to explore the inner workings of the mind and reflect upon the connections to the physical, emotional and social spheres. As a result, human action determines our reality. Through the process of my own journal, and the life writing of my research participants, we built a type of "collaborative auto ethnography" (Chang, Ngunjiri & Hernandez, 2013) to determine what role mindfulness plays in the holistic wellbeing of both the student and the teacher. Through the process we understood the study of auto ethnography as "a study of self, writing about individual experiences within the context of family, work, schooling and society and interpreting meanings into those experiences"(Chang, Ngunjiri & Hernandez, 2013, p. 11).

Although the research participants were not asked to formally analyze their life writing experiences, self-reflection was a natural evolution of the process. Such analysis requires a level of emotional self-disclosure, the degree of which I believe was directly correlated to the fact that the research participants, all undergraduate students, had had a personal relationship with the

researcher. This relationship built a community of trust and a climate of openness that may not have been possible without the relational context. This assumption has not yet been analyzed and will be addressed with regards to future research in this area, specifically concerning pre-service training and ongoing professional development in the field.

Overall, the use of life writing as a research method provided access to powerful data that would not have been obtainable though another medium. This approach asked the research participants to share their life stories and, in essence, to open their heart to the researcher so that "we could learn together what might be" (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012, p. xxvii.). Such a process required a high level of trust, commitment and authenticity from all involved in the research experience. Both the researcher's personal journal and the life writing data were based on "the first person experiences of coming to understand what matters most to them (and others), what sustains them (and others) and the places they inhabit, and what they have given their hearts to" (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012, p.xx). If the participants had not been able to open their hearts to explore authentically their lived experiences of the classroom the desired outcome would not have been possible.

Hence, to explore the concept of the role of mindfulness in curriculum and learning, one needs to be willing to *step to the edge* and embark on a journey to learn how to understand one's own tradition with greater insight and creativity (Smith, 1999). Smith (1999) explains that "the most basic purpose of going on a journey, then is a very ordinary one of learning to be at home in a more creative way, a good way, a healthy way, a way attuned to the deepest truth of things" (p. 2). In Buddhism, the Enlightened Being is one who, after obtaining the deep wisdom and insight required to understand the nature of reality, returns to his people in order to help them understand their challenges and obstacles. Hence, prior to working with my research participants

on the concept of mindfulness, I needed to obtain an understanding of my own complex reality and how it has shaped the way I think, the way I teach, and the way I walk in the world. I needed to understand my own journey and how that particular journey has brought me to this place at this time. I have realized that I have come back to right where I started. I walked the same pathway over and over again and eventually I began to see my place with new eyes, "trusting the world as being the only world there is, engaging in it without fear" (Smith, 1999, p. 4).

The Use of a Personal Research Journal for Reflection and Inquiry

Data from this project was gathered from a variety of sources. My initial approach was to use a d2l platform and run the research much like a class. When this did not work to my satisfaction, I realized the need to use email, personal conversations, and Facebook to connect with my participants.

The key challenge is in engaging the participants in the process. They all live very busy and stress filled lives and do not have time for reflection. This is a key concern of the research itself. Although they are all interested in mindfulness and wish to incorporate it into their lives, they believe that they do not have time. I have half of the research participants involved in the d2l aspect of the study. I have had a powerful coffee meeting with one but he has not had time to write his thoughts and observations. The other half, although interest has been expressed, are silent in the d2l shell.

This research would be more effective in a face to face context. In the future this component needs to be built into the research design. One of the barriers to mindfulness is the lack of direct human contact. I do not believe the online structure can replace that.

None of the research participants are interested in the discussion groups. I am not sure if this is a factor of time, or an unwillingness to share their personal story. This is unfortunate as I will not be able to gage the effectiveness of the online learning community.

I began to reflect on the idea of time and teaching, which has become a significant motif in the work. It quickly became evident that there is no time for reflection built into the present teaching model. Although my participants were keen and eager to be involved, the initial barriers were present and proceeded to impact the gathering of the research data.

I have emailed a personal note to the research participants who have not responded or contributed to the d2l shell. I am speculating that they are burned out and don't want to let me down now that they have offered to participate in the research. Hence the response is silence. I am concerned that they are isolated in their work and struggling with burnout. I hope that if I can rekindle a personal connection with them I can bring them back into the group. These teachers are interested in mindfulness and research, but the day-to-day reality of a classroom teacher does not allow any open space at all for this type of process. This observation is critical.

Through my own initial reflections on the process it became evident early on that there were many barriers in place to prevent my participants from engaging in the process I was asking them to undertake.

I have officially lost two participants. One has changed jobs and is working in the deaf and hard of hearing program, which he is not trained in, and so he is on a very steep learning curve. The other has taken on an administrative role and feels overwhelmed. The feeling of being overwhelmed is a very strong motif as well is the feeling of a lack of time for planning lessons and no time for reflection.

Two have handed in the first life writing and two have responded that theirs are in progress. The others are silent and I am hoping they emerge from the abyss over spring break. It appears evident that, although there is great interest in mindfulness and being involved in the study, the day-to-day demands of teaching are too complex to allow for open space. The email correspondence they have with me expresses their struggle with trying to find time in their day. Without time for critical reflection, it is not a surprise that they are feeling stressed and overwhelmed. There are far too many daily demands to allow space to be present and to pay attention.

The significance of my research question became stronger. As I reflected in my own journal, I was reminded of my own challenges in teaching and my own struggle to remain mindful. Life itself seems to create constant barriers to this mindful practice.

I have managed to track down a few of my lost ones. Some are completely burned out and "void of any ability for creative process." A few others are struggling with the first writing exercise, as they are going deep into their personal experiences. As I anticipated, sometimes an interest in mindfulness is caused by crisis. I am keeping a careful connection with these participants and making sure they have the support that they need, as they have expressed that the process is difficult.

My artist is on her own planet enjoying the process so I will just give her the space that she needs. Another one is in Vegas and thriving. The remaining two are in the CSSE program, in the remaining chaotic days prior to spring break.

I think the deadlines are too tight for what I have asked them to do and I may need to extend my research into the summer. They need more open space for time and reflection and this will not happen until July. If I can find something career-wise that is not full on, then perhaps I

can take another term to get the real quality data. I know the purpose is to finish but I really think they need more time and space for this type of work, as writing is a process. In the end, it will also provide better material for future research.

Overall, I still have 8-10 participants engaged in some way, and have officially lost only two. To make this work, I am really going to need to provide more personal contact and maybe visit with them in their schools, assuming the principals will allow it. Would I need to change ethics to do this? Or could it be done unofficially as I am not taking notes or doing any research? The purpose would be to make a personal connection with these teachers, which they desperately need at the moment.

Through the process of journaling my own life experience, I began to re-experience the barriers faced as a classroom teacher. I felt pushed to "gather the data" while knowing intuitively that if I wanted something authentic to emerge I needed to slow down and pay attention. This struggle brought me to the significant realization that data gathering is a complex process that cannot be accomplished with just one tool. It requires the merger of many tools in order to create a complete picture. Much like the process of teaching and learning, data gathering must be done in a way that meets the needs of each research participant. As a researcher I needed to be present, which would mean placing myself within the unique context and situation that was a part of each participant's lived experience. Bloomberg and Volpe (2012) state that "qualitative data analysis is an interactive and recursive process, rather than a linear one. It is important to recognize that in qualitative research, data collection and data analysis are an interconnected process" (p.153). Using a personal research journal allowed me to discover those interconnected patterns, reflect on the possible analysis and explore the themes that were appearing in a non-linear fashion. The ability to write in an open manner that allowed patterns

and themes to emerge organically was critical to the process of discovery. My research journal, which I realized was based in a constructionism epistemology, engages with the idea that "there is no objective truth waiting for us to discover it. Truth, or meaning, comes into existence in and out of our engagement with the realities of our world" (Crotty, 1998, p.8). My own personal process of reflection allowed me to make meaning of the stories of others, as "all of our narratives of personal experience are always connected to social, political, cultural and historical dynamics of identity, values and transformative possibilities" (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012, p. xxvii.). Every line written, every story explored, opened a portal to the possibilities for mindful transformation in our educational settings. The voice of each research participant, as well as my own voice, needed to be explored and understood if we were to fully develop the research question.

Introduction of the Participants

Backgrounds of the Participants

Before beginning the process of data analysis and interpretation it was critical to situate each research participant within their current context. Research participants were gathered from the public, separate and private schools in and around Calgary, a large urban center in southern Alberta.. The participants came from a variety of backgrounds and were all teaching at different levels, in different settings. This added a diverse perspective to the research, as I was able to determine the effectiveness of mindfulness in a variety of contexts. The following table presents a summary of the demographic attributes that were present in the research group.

Table 13. Background of the participants and their current school contexts.

Name	M/F	Years of Teaching	Grade/Context	Working Conditions	Reflection Time	Journal use
Pat R	F	2nd year	High School English -KAE, creative writing and academic track	-Controlled chaos -KAE classes that have a great deal of movement -A nice sense of home and the classroom is set up to make both the students and the teacher comfortable	-Created time in the day and space in the room for both student and teacher to reflect -Silent reading every day when the teacher can read something enjoyable or take the time to write	-Yes: I have a professional and personal journal as you never know when you are going to need to work something out.
Jenn D	F	2nd year	Secondary art/English -Bridges, Alternative High school -junior and senior high school at risk settings	-Long and tiring days with kids who have very difficult lives -Kids have trauma, deal with hunger and poverty on a daily basis	-I am naturally reflective but believe I overthink things which causes problems	-No but I am going to attempt to use a journal/sketchbook for this mindfulness project
Cole	F	2nd year	Junior high in a unique therapeutic setting for children with severe emotional/behavioral difficulties	Setting practices trauma-informed therapeutics -small student to staff ratio with small group activities that foster self-regulation and sensory integration (drumming, meditation, physical activity, massage, visual arts and music.	-Working in a classroom team allows opportunity to debrief and get feedback from others. -reflection done in discussion and the setting is very collaborative -only one prep per week so not	Yes – though infrequently

					a lot of time for traditional reflection but find time to reflect and contemplate during daily activities.	
Hsteach	*M*	*2nd year*	High school math/CTS	-Although my day is busy I do not think there is a better environment. The team I work with is incredible and our conversations lead to very in depth discussions around curriculum and design	- I don't really reflect at school but do it when I go running. I do have reflective conversations with other staff members. - I have also had the opportunity to give reflections on my first year teaching which required me to reflect on my year and pull out the positive moments that had gotten lost in the crazy.	No
Byron	*M*	*2nd year*	ELA 30-2, 20-1,20-2, 10-2, Creative writing and FSL 10/20/30	-Lack of resources needed to complete my job to the best of my ability. Lack or time. -Only one prep per year so for one semester there is no prep time -I feel run down and failing to find	-I take time weekly to reflect on my practice and personal well-being. I read, write and reflect. Without this I feel my personal stress level would be too high to	-I do not keep an "official journal". I have bits and pieces of disconnected thoughts throughout my computer, binders and scribbles

				balance as I struggle to meet the demands of the profession.	complete my duties	
Tasha	*F*	*2nd year*	High school academic course load (ELA 10-1 and 25IB)	Crazy! A constant hub of activity starting at 8 am to 4. -I am always on the go and it seems like there is always something to do at all times	-No. There is no time in my day to stop and reflect	I like the idea of journaling but there is not time in my day to do this
Lynn Green	*F*	*2nd year*	Junior high diverse learning teacher/inner city -Social studies, English and Educational support/resource	-In classrooms supporting teachers. Generally working with high needs pull out groups -I have an office that I work out of with a TA group in the library	-I have reflection time during my preps or at the end of the day	No
Nan Austen	*F*	*2nd year*	-Teaching at a school where the practicum round was completed -ELS and performing Arts -Heavily involved in extracurricular performing arts program/productions	-Incredibly supportive staff and administration -One mentorship relationship is currently challenging which is a daily source of stress -Generally fulfilled by the students staff, parents and challenge of the work. I am strongly	-Administration is highly focused on professional growth and we are expected to set a growth plan and reflect upon it -Formally meet with the principal 2-3 times a year to discuss -Drama is new to meet and when	Yes- I journal with my ELA students every day. -I do not journal out of this time. I have thoughts and reflections scattered everywhere.

				rooted in the school.	the demands of a production/performance are present my time is spent working and I lose time for reflection.	
Rhap *NOTE: this participant may drop due to stress*	*F*	*2nd year*	-ESL Muslim school grades 4-8 -Langevin science school grade 8	-collaborative setting. Grade meetings occur daily and division meetings weekly	-Minimal time to reflect and contemplate lessons due to all the other commitments	-I wrote in a journal in the past but currently do not write at all as I feel so overwhelmed with keeping up with the work.

The profiles of the research participants are diverse. The participants teach from K-12 in the disciplines of Math, English, French, Art, Drama, Social Studies, and ELL. One participant is in a special setting addressing diverse learning needs, and another teaches at a charter school. There is a common theme of a culture of chaos and stress—although two participants report that, though their positions are busy, their stress is counteracted by a supportive team environment. The lack of professional resources and space are evident in their reports, although teachers are attempting to "create a sense of home within their classrooms." The ability to include reflection time is variable. Some feel that they have no time for reflection at all, and others have taken the time to build it into their day. Only one participant keeps a journal, while the others do not believe they have time in their day for this type of reflective work. Table 14 presents a summary of the findings regarding the participants' contexts in the four quadrants of the Integral model.

Table. 14. Background and school context explored through the Integral framework.

Upper left – Interior Individual - Subjective ***Mindfulness and Self (I)***	***Upper right – Exterior Individual - Objective*** ***Mindfulness and Science (It)***
-The need for open space for reflection is evident -Strategies have been developed for wellness such as writing and physical exercise -Participants define mindfulness clearly but often have difficulty implementing mindful approaches into their practice. Hence, an understanding of mindfulness that lacks implementation	-Special needs settings in which the teachers feel they have not been properly trained -Subjects in which teachers are not fully trained, leaving them unable to transfer skills -Long days with challenging kids that have diverse learning needs
Lower Left – Interior Collective – Intersubjective ***Mindfulness and Storytelling (We)***	***Lower Right – Exterior Collective - Interobjective*** ***Mindfulness and Systems (*Its)**
-Journaling is used in some cases but most often not. When it is used, it is used infrequently. -Often feeling isolated and overwhelmed by the work and in need of a human connection	-Classroom conditions are often described as 'controlled chaos' -The impact of the environment and the professional learning community is critical to the success of the teacher -Educational leadership does not always appear supportive of mindfulness as it focuses more on system outcomes -When time is allowed for reflection, the teaching quality standard improves -Minimal time for reflection due to competing demands placed on the teacher

Integral Life Writing on Mindfulness in Curriculum and Learning

During this stage of the process the data gathering shifted. Participants were asked to reflect on their life histories and personal stories with regards to mindfulness. Some of the participants proceeded to answer much like the interview questions. One participant chose to respond via an artistic journal, while many chose to respond in the form of memory work. As Chambers, Hasebe-Ludt, Leggo and Sinner (2012) reflect, "memory work performs a kind of theorizing from the ground, the humus we share as human beings (Aoki, 1986/1991/2005); it digs up the roots and rhizomes of past social and political conditions that have shaped the human condition" (p. 2). Through this process of memory work, these research participants came to a much deeper understanding of who they are and how their experiences have shaped them. Without being formally asked to analyze their experience, many reached a significant epiphany regarding why they respond to teaching and learning in the way they do. As a researcher, the next step in the process was to apply a *literary métissage* (Hasebe-Ludt, Chambers & Leggo, 2009) to interpret these experiences, which makes possible new ideas and insights, as well as new discourse and action. The focus was to engage in a type of dialogue regarding the role of mindfulness in curriculum and learning, as "literacy métissage leads to understanding about the self and other and generates insight about the world and our place in it" (p. 38).

Life Writing 1: Personal Journey to Mindfulness

Researcher's Reflections

I have emailed a personal note to the research participants who have not responded or contributed to the d2l shell. I am speculating that they are burned out and don't want to let me down now that they have offered to participate in the research. Hence the response is silence. I am concerned that they are isolated in their work and struggling with burnout. I hope that if I

can rekindle a personal connection with them I can bring them back into the group. These teachers are interested in mindfulness and research but the day to day reality of a classroom teacher does not allow any open space at all for this type of process. This observation is critical.

I have officially lost two participants. One has changed jobs and is working in the deaf and hard of hearing program, which he is not trained in, and so he is on a very steep learning curve. The other has taken on an administrative role and feels overwhelmed. The feeling of being overwhelmed is a very strong motif as well is the feeling of a lack of time for planning lessons and no time for reflection.

Two have handed in the first life writing in and two have responded that theirs are in progress. The others are silent and I am hoping they emerge from the abyss over spring break. It appears evident that although there is great interest in mindfulness and being involved in the study, the day-to-day demands of teaching are too complex to allow for open space. The email correspondence they have with me expresses their struggle with trying to find time in their day. Without time for critical reflection, it is not a surprise that they are feeling stressed and overwhelmed. There are far too many daily demands to allow space to be present and to pay attention.

I have managed to track down a few of my lost ones. Some are completely burned out and "void of any ability for creative process." A few others are struggling with the first writing exercise as they are going deep into their personal experiences. As I anticipated, sometimes an interest in mindfulness is caused by crisis. I am keeping a careful connection with these participants and making sure they have the support that they need, as they have expressed that the process is difficult.

I think the deadlines are too tight for what I have asked them to do and I may need to extend my research into the summer. They need more open space for time and reflection and this will not happen until July. If I can find something career-wise that is not full on, then perhaps I can take another term to get the real quality data. I know the purpose is to finish but I really think they need more time and space for this type of work, as writing is a process. In the end, it will also provide better material for future research.

Through my research journal, I was reminded of the pressures of time and the importance of slowing down to allow themes and patterns to emerge naturally and organically. Hence, my carefully planned timeline was abandoned and I created an open space allowing participants to work where they felt inspired and provide me with their reflections when they were ready.

The next section will provide a brief summary of their stories. Following the summary will be an identification of the common themes and motifs that emerged during the literary metissage.

Participants' Responses to the Life Writing 1 prompt: How do you Personally Define Mindfulness Based on Your Life Story?

Pat R's story. Pat uses memoir work to reflect on the experiences of her own life and how those experiences have shaped her as a teacher and a person. "Growing up in a family of 8 children, it is easy to get lost in the shuffle and it is hard to advocate for yourself. I think this is how I became the extremely loud and outgoing person that I am now." She reflects on how this has impacted the way that she approaches teaching: "I find so many of my students are lost and I want to help them find their voice." Pat is very independent, and in her memoir she reflects on how she came to be that way: "I never had a consistent person to rely on so most of those struggles ended up in my own lap." Her journey to mindfulness resulted from a process of trying

to balance too many things at once. “Having a more difficult upbringing places a great deal of weight on my heart and I needed to find a healthy way to call attention to it without bringing sorrow.”

She reflects on how hard the path has been and how she tries to keep herself very busy in life. She realizes she pushes herself: “When I was doing my BA, I finished it in two years while TAing, doing research for a professor, tutoring, working and taking 6 classes.” She believes that the mindfulness she has brought to her life allows her to “appreciate the process and enjoy the blessings that I have.”

Rhap’s story. Rhap identifies herself as an extremely emotional and sensitive person. She has travelled a great deal and has come to understand history by standing in the spaces where it occurred. She feels she has a very strong sense of empathy and compassion due to her own lived experiences and her ability to understand the lived experiences of others. She feels the ways of the world strongly and wishes to incorporate mindfulness into her life to aid with the fluctuations of the mind and emotion. She has many obstacles in her personal life which she believes contributes to the empathy and compassion that she feels for others. She asked to illustrate her life story and mindfulness through an artistic medium but struggled immensely to address her life experiences in her first life writing prompt. As a researcher, I do not wish to push her to pursue this study if she is not ready.

Jenn’s story. Jenn is an artist, and chose to chronicle the question through visual media. Jenn struggles with anxiety and depression and has used mindful practice as a tool to find wellness in her life. She is a deeply reflective individual who carefully considers all the details of life, sometimes to her own peril. She struggles to find balance and wellness in her life when trying to teach the same skills to her students.

Cole's story. Cole has come to an understanding of mindfulness through her own natural tendency to reflect on the events of her life. She ponders the complex intersections of her life, where "the brain, competing between various demands, can become overwhelmed and necessarily obfuscate the true power of reflection." She understands education as a liberating force yet still identifies herself as a "wanderlust" with a robust history of "trodding through the world and spending an incredible amount of time living outside the parameters of comfort." She recounts, "many times, I have felt like a foreigner, even an imposter, at war with my own body, raging battles against the established traditions. I have splayed myself out in dark rooms (in buildings and in my mind) and have learned to escape both through mindfulness."

Hsteach's story. Hsteach never wanted to be a teacher and is still somewhat surprised to find himself in his current role, teaching high school math. His younger years revolved around playing soccer and running, so physical movement was always a critical part of his experiences. He originally started his career in business education with hopes of running his own organization, but he reached an epiphany one day when he was helping his sister with math. He reflects that, "math was pretty easy for me, but for her it was a struggle. And it wasn't that she did not care, or did not want to learn it. She just for whatever reason did not get it. So I sat with her, and helped her understand the math she was doing and in that moment I realized that was what I wanted to do." He came to the understanding of mindfulness in math: "I saw math as a subject of fear for students, but I believed and still believe that all students can learn math, it just might take different approaches or different amounts of time."

Hsteach uses running as a reflection tool: "a place of peace and comfort where I would free write in my head." He believes his journey to mindfulness started as a student in high school when he participated in Challenge Day. It was a day "that allowed me to break down the

barriers that separated us from the people that we passed in the hall but never knew. I started to realize what a big impact this had." He believes his mindfulness journey started "with an event that challenged me to look at how my past helped shape me."

Byron's story. Byron reflects on being a "personal conundrum" in that he falls somewhere between being completely relaxed and completely stressed out. He feels his life has been a process of "being constantly pulled in multiple directions, by multiple people all wanting something different" which results in him being "avoidant/lazy or over the top analytical and perfect." In his story he reflects on his first year teaching when he was given an assignment that ensured he would be "incapable of achieving perfection." He felt his "world slowly crashing around him without a safety blanket, or education, expertise and experience with the core content."

Through this experience of trying to acquire a base of competency, Byron "ran himself into the ground and nearly experienced a full-on nervous breakdown—counsellors, doctors and medication included." Here he began his quest to seek mindfulness in his life.

Based on this experience, he defines mindfulness as "the moment of calmness in the storm, the ability to hear a single voice through the thunder of a thousand people and the ability to find yourself—even when you have strayed too far from whatever path you happened to be on." At his lowest point he came to recognize that "all that exists is now" and that if "I am going to be a beacon for the next generation, first I must be a beacon for myself."

Tasha's story. Tasha's story illustrates a life in constant motion, wherein she cannot slow down and reflect on what is happening. She speaks of "a constant process of putting out one fire after the next." She did not share much of her personal story and experience in this life writing process.

Lynn's story. Lynn presented a powerful memoir piece that recounted how her upbringing and personal trauma has informed her understanding of mindfulness. She reflected on the critical role her experiences have played in bringing her to her present space and place. In her memoir piece, she returns to her 5-year-old self and the day her father died from a heart attack: "The ambulance sirens outside my window hadn't woken me but my sister's cries did. I can still see her red face as she sobbed for the father who had understood her best." Mindfulness first appeared for Lynn on Father's Day, as "teachers always came closely to my desk, kneeling down at my level and saying that I did not have to make a card if I didn't want to. Sometimes I didn't but sometimes I brought it to my father's grave."

She considers the trauma that surrounded her growing up and returns to the age of 13 when her best friend is diagnosed with depression after multiple suicide attempts. She remembers her own role as a caregiver: "Before the attempts took place but after the dark thought began to ravage her brain, I was her psychologist." Her high degree of empathy and compassion was recognized as "empathetic by nature." She recounts, "I began to take these [thoughts] on for myself and believed that if I fought hard enough I could win this battle for her." Eventually, her young friend was taken to the psychiatric ward, and Lynn struggled with trying to help her. At the same time, Lynn's home life was very unstable, and all around her chaos, struggle and pain filled the days. Yet she understood that education was her way out, her escape. "It was during those dark high school years, when I imprisoned myself in my bedroom, that I made a promise to myself that once I had my own agency and power over my own life I would never be so unhappy again."

These life experiences have strongly shaped the teacher that she has become. "Teaching," she says, "isn't about knowing exactly what someone is going through but taking

experiences from your life and recognizing the feelings that have been learnt from them—compassion, patience, love and empathy to name a few—and remembering to keep them in mind when working with students." It was her experiences "through hell and back" that taught her "to realize and recognize the importance of mindfulness in the classroom."

Nan's story. Nan explored the process through writing a memoir of her life experience. This was a tough and emotional process for her, which she soon needed to take a break from. She states that her life has been broken into two distinct eras, before cancer and after death. Her beautiful and powerful memoir traced the experiences of her life, and her realization that "human experience rarely lends itself to cinematic heroism or even a single tidy journey. It is a messy weave of different stories."

Nan as a child "sat at the piano punching out entitled and messy chords." She was dramatic and precious, but one day she opened the portal to musical discovery. She reflects, "I remember the feeling of time spooling around me, or each moment working with me." She discovered the secret, but cannot access it again. As she continues to reflect on the journey of her life, her relationship with her parents, and her experiences at school, she recognizes the multitude of experiences that make up the story of her life. Conflict and estrangement from her mother set her out alone on her journey. "When we reunited after 4 estranged years, our roles had reversed: I was cultivating mindful happiness and internal resolve and she was barely holding onto peace as her body failed her and she prepared to die."

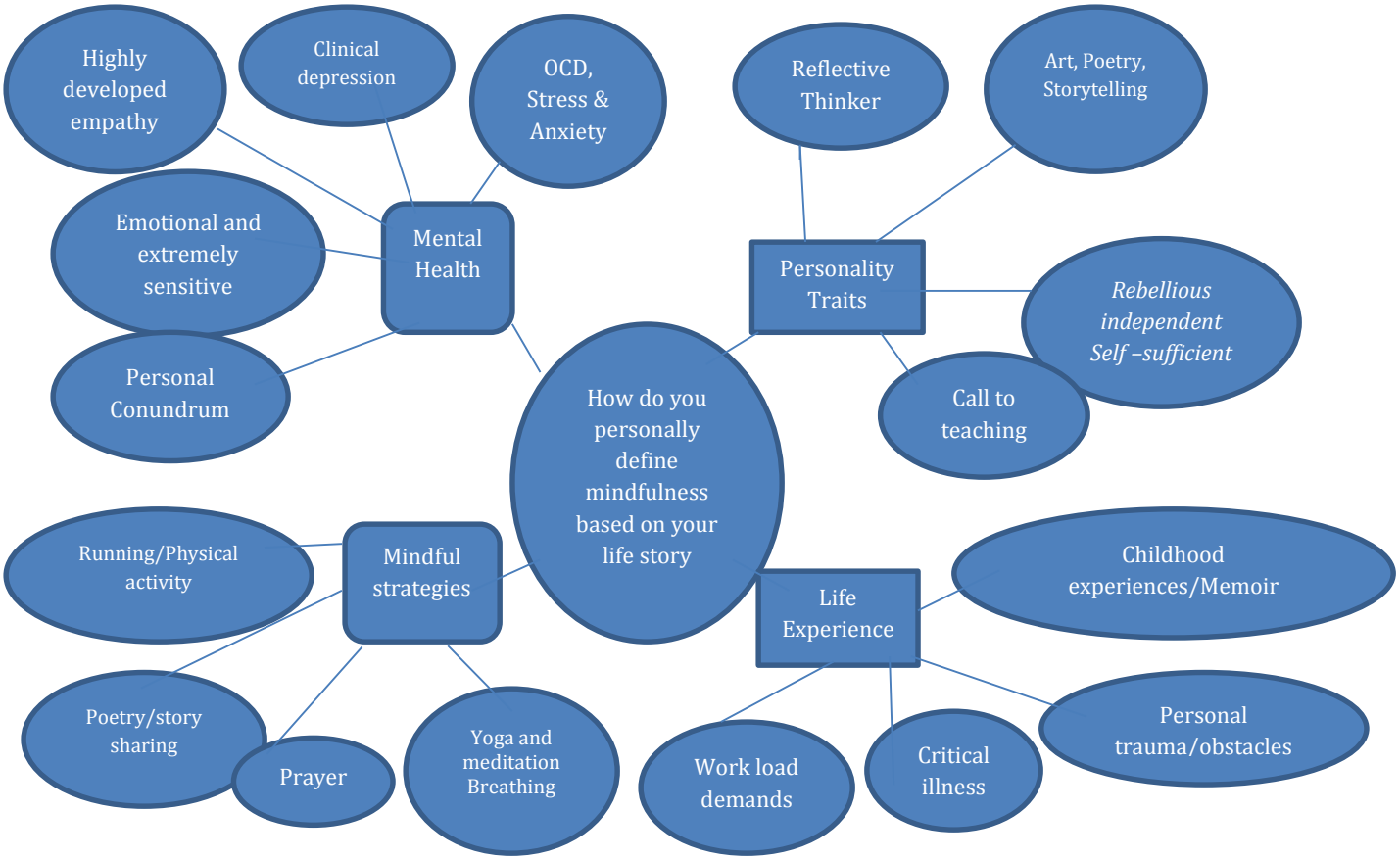
The next section of her story focuses on her mother's battle with cancer and how her professors encouraged her to use this experience as fodder for her writing in spite of her desire to avoid the present. "I was purposely working myself to exhaustion each day so that I wouldn't have time to reflect upon the experience, but these professors insisted that I reflect anyway." She

identifies this as an important lesson in mindfulness, as "sometimes a person's survival depends on shutting out mindfulness and reflection. Sometimes a person cannot be mindful so others must be mindful for her. The professors who allowed me to submit late assignments were wonderful; the professors who insisted that I use my experience as assignments have inspired in me a deep compassion that feeds my own teaching practice."

As she waited for her mother to die, she felt as though she began to die herself. She then started to experiment with breath work and turned to Buddhism as a way to survive. "There were some beautiful connective moments in my Mom's journey, but for the most part there were voids instead of victories. Sometimes all we could do was breathe ourselves into readiness and just deal with whatever came next."

In conclusion, the figure below shows the themes and patterns emerged with regards to the first life writing prompt.

Figure 1. Emerging themes and patterns on the personal journey to mindfulness.



Life Writing 2: Teachers' Use of Mindfulness in their Classrooms

Researcher's Reflections

The participants spent a great deal of time considering this piece. The process has changed, and there is more art and poetry present in the work. It appears the participants are trying to understand the role of mindfulness in curriculum by going to a place of mindfulness themselves.

This process has become much more than research data, and is now a deep and introspective journey of trying to find oneself and then trying to find the way home.

Participants' Responses to the Life Writing 2 Prompt: How do you Incorporate Mindfulness into your Curriculum Design?

Pat R's Reflections. Pat makes the critical observation that the curriculum looks different according to the culture of the room. As a K & E teacher, she recognizes the need to bring the curriculum to a place of life experiences if she is to convince her students of the importance of being in school. She states that determining the curricular goals is "not just about marking a test or a paper to see if they know the answers." It requires a more personal approach. She has introduced free writing into her class, allowing her students to write without worrying about writing the "right way," which she has found to be a successful teaching strategy. "I have found the more often we do this, the less they stream off topic. It is a conscious way of controlled meditation. They are thinking of a specific idea and moving the distractions out of the way." This writing process has improved their understanding of the literary texts and helps them connect those texts to the events of their lives. As encouragement, she also follows the same work as her students: she reads when they are reading and writes when they are writing. She uses mindfulness in her class to help her students be present in the moment. As a result of this work she has noticed a growing sense of community among her students. Her students work well together and support one another. She has also created a community snack cupboard to which everyone contributes. She reflects, "there is no obligation, but they seem to enjoy being part of the sharing." She hopes to continue to build mindfulness into her curriculum and to find new ways to help her students become more aware.

Rhap's Reflections. Rhap continues to reflect on how difficult it is for her to find open space and time for reflection. She hopes to find ways to help her students discover how to learn in a way that is meaningful and authentic to them, where "curriculum is learned, not to receive a

good grade on a test, but rather to see throughout time and space what it means to be human and what it means to live with passion and purpose." Due to the current context of her school, she is finding this increasingly difficult, as there is pressure to support a very specific methodological process that aligns with the fundamental vision of the school.

Jenn's reflections. Jenn submitted a beautiful drawing with her written work to illustrate her need to go into the world of the artist in order to explore her relationship with mindfulness and curriculum. She alternates between words and images. Her process of exploring her thoughts and emotions is reflective of how she understands mindfulness and the role that it plays in curriculum studies.

Cole's Reflections. Cole spends a great deal of time exploring the meaning of the word *curriculum*. She states, "effective curriculum vitae should express more than a mere list of things to be done; schooling should tell the story of a human life, of things lived, not just looked at." She focuses on the experience of *being* and the idea that curriculum must somehow *live*. In her classroom, meditation and mindfulness are used deliberately to meet the complex learning needs of the learners she works with. Her curriculum is focused not on content knowledge and recall but on teaching her students the skills they need to thrive in their world and their current context. Her curriculum is an attempt to "teach the things they need to know." Cole uses Leonard Cohen's poem "Teachers" to enhance her view and understanding of the role mindfulness plays in her particular classroom context.

Hsteach's Reflections. Hsteach reflects critically on the types of pedagogical process that he employs in his math class and in his class called *Connect*. The Connect class is focused on providing a smaller space wherein students can personally connect with their teacher. In this class he employs a lot of free writing, a process he learned in University. Free writing allows

students to reflect on what is on their mind and then share their work and their feelings with others. In his core math classes, he has his students work with self-reflection, a process that is analytical to the free writing of his Connect class. He states, "math is a language and an art. And with it we can enact the ideals of mindfulness." Mindfulness and critical self reflection are a major part of his teaching.

Researchers note: Hsteach was the winner of the Edwin Parr first year teaching award for his work in the classroom

Byron's reflections. For his life writing, Byron chose to express himself through poetry. The process of poetic inquiry helped him recognize and address the complexities of his classroom as he spoke of the need to manage stress and anxiety within the classroom context. His poetic inquiry is "notably the attempt at finding calmness in an overwhelming moment of stress."

Frustration, angered disillusionment.
Up, up, up, up and up it flows
Faster and faster
Closing like a fissure
Whirling, whooshing, whipping at my face
Writhing and restricting in a tight-looped twine
Movement restricted, breath restrained

Through this poetic inquiry he comes to understand that mindfulness largely concerns finding calmness in the storm for both himself and his students. Mindfulness is a place to find peace before carrying on or continuing with the task at hand.

The eye of the storm intrudes
The chaotic serenity rests
In the depth of the greatest pandemonium
It is ruptured
I breathe

Tasha's reflections. Tasha reflects that in her content area, English, there are many opportunities to incorporate mindfulness and reflection into her curriculum. As the curriculum focuses on exploring the human condition, many of her class conversations and assignments encourage students to look within themselves. She has also added "poetry slamming" as a means for students to express their individuality and their voice. However, she still feels pressured to rush the material: "I cram everything that I need to teach and assess into a prescribed time, [and] I myself become so overwhelmed, so my personal experiences with the teaching side of the curriculum makes me wonder how the student side is fairing." She considers that we need to become more conscious about mindfulness and have it be part of the written curriculum. Until it is part of the curriculum, teachers will still continue to race against the clock and feel pressured to complete the prescribed curriculum regardless of the student's comprehension—an approach that is "not mindful of the student."

Lynn Green's reflections. Lynn reflects that much of the curriculum she works with does not lend itself naturally to mindfulness. She laments that ELL learners, who form the majority of students at her school, are expected to understand a curriculum in English despite not having language proficiency. She also takes issue with the content of the Social Studies curriculum, in that it does not take into account other languages or cultural backgrounds, other than Francophone and aboriginal. Hence, she does not see the accepted curriculum as mindful. However, she sees mindfulness in the way that teachers present the curriculum: "We are aware that we have students that are from Sudan and other African nations and they may have PTSD. We have students that spent their first few years of schooling in a refugee camp". As the diverse learning coordinator for her school, she says, "Many teachers accommodate and modify work for

students as their needs are presented." She sees mindfulness in the presentation of the curriculum, not in the actual curriculum itself.

Nan Austin's Reflections. Nan chose to outline her use of mindfulness in teaching through descriptions of the specific subject areas that she works with: Drama, English Language Arts, and what she refers to as the Curriculum of Life.

Curriculum of Drama. Wisdom traditions are paramount for creating community, as they instil a sense of safety by allowing students to experience emotions moment to moment. Drama allows students to better cope with their experiences, as it allows them to function simultaneously as observers and participants. She reflects that she is beginning to understand that the responsibility of art is to instil some form of wisdom or mindfulness practice.

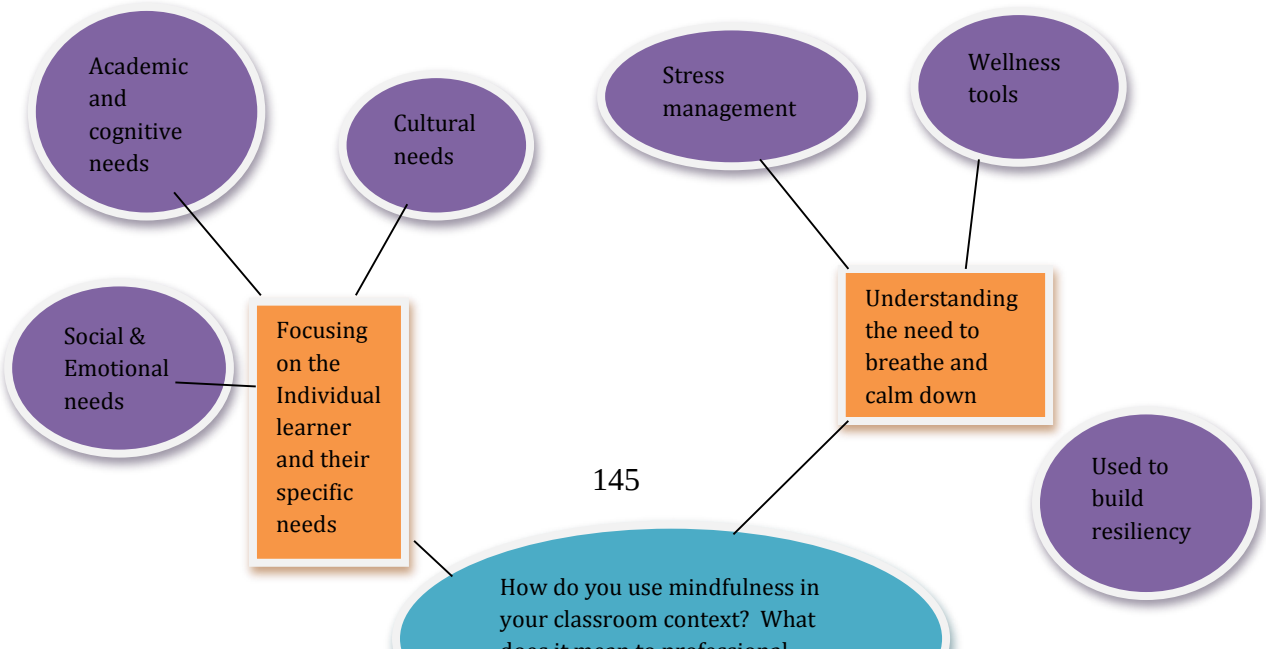
Curriculum of English Language Arts. Much like actors benefit from mindfulness, writers will more acutely understand the human condition, and thereby deepen their ideas about it, through mindful observation of their experiences and the experiences of others. She considers that mindfulness is the responsibility of the writer in the same way that it is the responsibility of the actor.

Curriculum of Life. Nan reports that her staff have observed that a surprising amount of students suffer from anxiety, depression, and other modes of unhealthy stress management. The guidance counsellor at her school has worked very hard to help teachers develop mindfulness tools to share with the students. They have noted that, as long as the students are willing to try new methods, students will be empowered to cope with their stress in healthy ways. Nan wonders if whether it would also be advisable, when counselling a student, to ask her to explain her current state, as though the student were participating in a vipassana body scan. After determining the details of a situation that is causing a student trouble, asking a student how she

feels in her body or breath might help Nan better understand and thus more effectively assist the student. She concludes that she hopes mindfulness will help all the students at her school become more resilient.

Researcher's reflections. *The themes and patterns of the role of mindfulness in curriculum are slowly emerging. There is a reoccurring motif of the need to breathe and calm down. The participants understand the significance of focusing on each individual learner and their individual needs, and are working on ways to present the curriculum not as infallible word but as true lived experience that is relevant and meaningful to the lives of each learner. There is a common theme of trying to teach with heart: the responses from this life writing prompt contained visual artwork, poetic verse and memory work, combined with the observations of critically reflective practitioners who are seeking to understand the basics of how we teach and how we become fully developed human beings. Many of the participants are moving into the world of art as they reflect on their practice and its implications on curriculum. The following mindmap explores the themes that emerged in their life writings.*

Figure 2. Emerging themes and patterns regarding the use of mindfulness in the classroom.


Academic and cognitive needs
Cultural needs
Social & Emotional needs
Focusing on the Individual learner and their specific needs
Stress management
Wellness tools
Understanding the need to breathe and calm down
Used to build resiliency
How do you use mindfulness in your classroom context? What

Life Writing 3: Impact of Current System Directions and Policies in the Classroom

Researcher's Reflections

As the participants were working on this piece the province of Alberta was in political turmoil. A long-standing PC reign was ended and an NDP government formed. Teachers led the charge as they perceived that the previous system was the cause of all of their obstacles. The system was to blame for all the problems in our classrooms. However, there was limited consideration of the complex circumstances that created the problem and there will be no quick-fix solution; only after much collaboration and consultation can effective change occur. As Wheatley (2002) reflects, "Problems keep getting bigger; they are never solved. We solve one, it only creates more" (p. 16). Hence, we cannot expect to place a band-aid on the site of the wound and anticipate that the problems will go away. There are many interconnected pieces of the puzzle, requiring collective collaboration from those who understand the complexities. This is not "a mechanical world" (p. 29); this is a human world created by human beings co-existing within the system, and any significant change will require human thoughtfulness and consideration.

This life writing exercise brought forth short memoirs, powerful poetic verse, rants against the machine and reflective texts based on the participants' lived experiences. The key themes that emerged revolved around the continued existence of the factory model of education and curriculum and content demands. Other reoccurring motifs included time constraints and the rapid pace of most school contexts combined with the push/pull tension between school level

administration and district provincial level administration. The impact of these complexities upon the individual classroom varied between school settings and showed a direct correlation to the leadership either at the school level or at the system level. With positive support from the school-based administration or the system in general the impact of the obstacles was not perceived. The conditions of each participant were not equal, and each participant had a different version of the story with regards to system impact on their day-to-day classroom activities. The next section will provide a brief summary of the key themes and motifs presented with regards to this life writing.

Participants' Responses to the Life Writing 3 prompt: What roles do current system directions and policies play in determining day to day activities in the classroom context?

Pat R' system. Pat struggled to keep up with the life writing at this point. She sent an email to the researcher regarding her inability to find time to write as she had 65 IPPs that needed to be finished. She reflected carefully on the "theory" of having an inclusive classroom designed to provide an optimal learning space, but the reality of attendance policies, extreme paperwork and other obstacles impeded the possibility of this vision. She states, "The system wants us to achieve a certain level of education, yet overworks, overloads and underappreciates its teachers." She counterbalances this frustration with optimism as she recognizes that, in her day-to-day reality, she is doing what she loves: inspiring students and changing lives. She says she wakes up happy every morning and cannot wait to spend more time developing her craft. She credits her optimism to mindfulness, and at the end of the day she thinks, "I'm where I am supposed to be."

Rhap's system. Rhap has not formally contributed to the research at this point. She is working on an art piece at home to focus on her mindfulness, but she is feeling quite overwhelmed and defeated.

Jenn's system. In Jenn's life writing she explores her feelings of frustration and of being overwhelmed by the demands asked of her. She feels she cannot properly prepare her students for the future, fretting that many of them cannot read, won't read, or don't read. She expresses her desire to help them but feels inadequate in doing so, and speaks in her journal of her thoughts of letting them down. She feels lost in the system, assuming that she mentally and physically cannot support them all.

Researchers note: At this time Jenn was hospitalized for pneumonia and struggling with health and wellness issues. Her journal reflects here feelings of helplessness, isolation and frustration.

Cole's system. Cole responded to this life writing with a powerful poetry piece that reflected her struggle with the bureaucracy of the education system and her feelings of "us versus them." Through poetic verse she expresses disdain for the necessary paperwork, which she feels does not contribute to the real work of learning and education. She refers to her students as "jewels that will be snatched" by the factory model of education trying to consume them all. In the end, she reaches the epiphany that she needs to "adjust her sails to their gale force winds" and learn to work *with* the system and not against it. This resolve exhibits a strong understanding of the significance of mindfulness when dealing with system complexities, which will be discussed in greater depth in chapter 5.

Hsteach's system. Hsteach works in a highly supportive collaborative environment, to which he credits the success of his school. Although he remarks that his day is very busy, he

does not think he could find a better environment. He states that the team he works with is incredible and share a common vision of educational philosophy, which allows them to engage in conversations regarding curriculum and task design. Rather than seeing curriculum as an obstacle, Hsteach sees it as a way to engage with fellow colleagues and discuss new potential ways of seeing and knowing. He feels that each day he can engage in meaningful conversation with his peers and administrative members. He has never felt left alone and always feels as though his ideas matter. He feels strongly supported at both the school and system level, and believes that this support has contributed immensely to his success as a classroom teacher.

Byron's system. Byron chose to respond to this life writing with a rant to his MLA. He states that the systemic pressures are intense in day-to-day life for teachers in Alberta. He rages about IPPs, increasing class sizes and workloads, and about student failure being viewed as unacceptable versus part of the learning process. He feels that he has "weathered many storms," and although he still has the tenacity to deal with this obstacle he believes that such a struggle "does impact a teacher's morale and motivation to do their best." He believes these systematic pressures have an indirect effect on students, since worrying teachers ultimately pass their negative energy to students. He feels anger toward a system he believes is failing him and his learners, and he does not feel supported.

Tasha's system. Tasha's life writing expresses concern with a system that is still modeled on the factory, and believes this system hinders the realization of a mindful environment. She states that it is difficult to connect with her students due to their large numbers and the amount of content that needs to be delivered and received. As a result, she believes that mindfulness is not at the forefront of the present model of education. She also feels that increasing extracurricular activities are contributing to the current drain on time and energy, as

many of her learners have "overscheduled timetables." She believes the benefits of these extra activities are diminished because they are in direct conflict with an already overwhelming academic schedule.

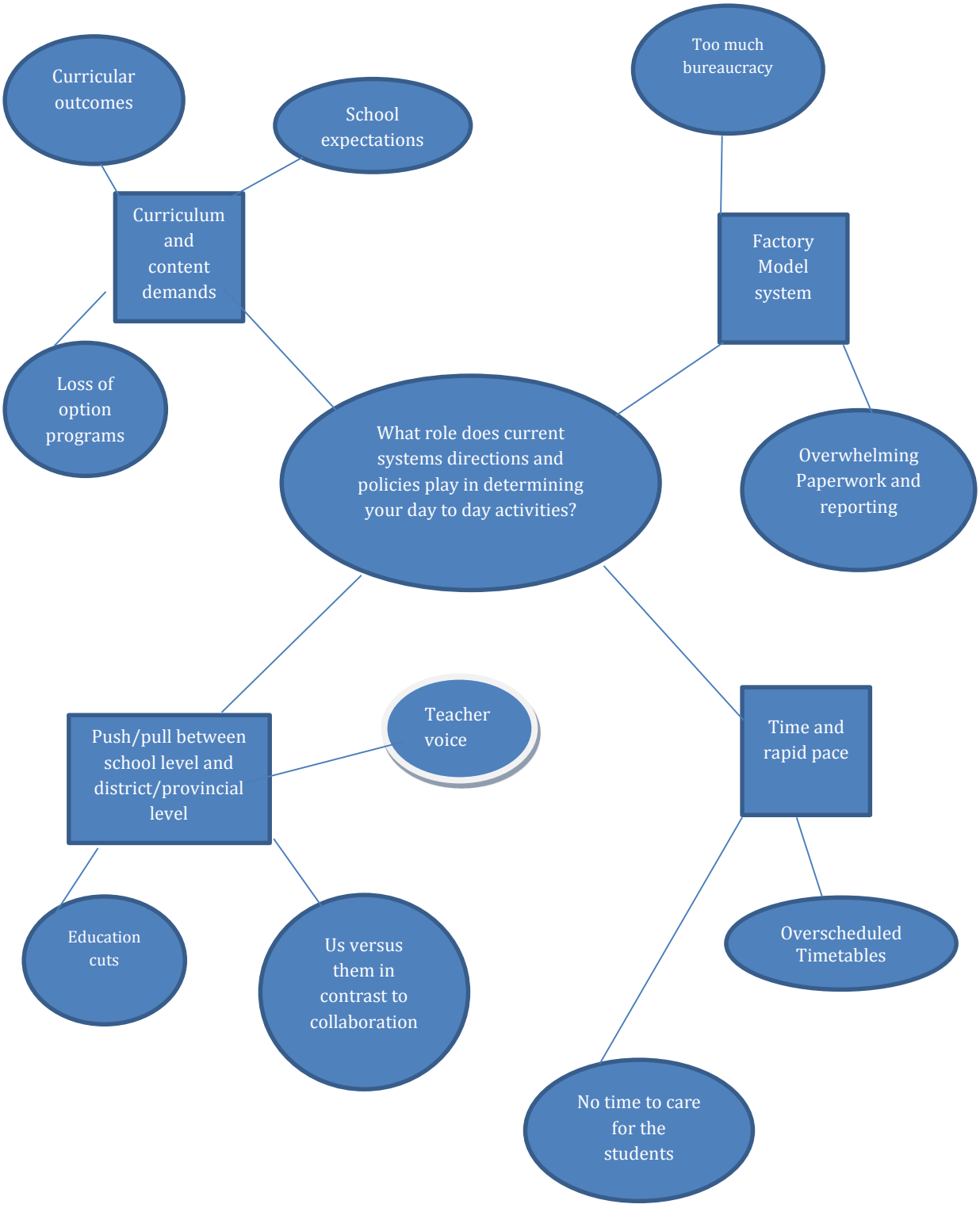
Lynn Green's system. In Lynn's role as Diverse Learning Coordinator she has a different lens than a front line classroom teacher. Her job consists of sorting the information, paperwork, meetings and due dates between teachers and administrators. She states that the sheer volume of paperwork is overwhelming to deal with, and infringes on her time to work directly in the classroom with students that need her time and care. On the other hand, she reflects positively on the support her district provides her with regards to behavioral issues. She states, "Extreme behaviour had occurred last year with the same group of students which included a riot and teachers feeling unsafe in the hallways and during supervision. After our principal candidly told the district that we were in crisis mode the cavalry moved in." She cites this as evidence that the district policies work for the school. She believes this support is critical to overcoming the obstacles faced in her high needs setting.

Nan Austin's system. Nan describes her school as having an incredibly supportive staff and administration team. Her administration team is highly focused on professional growth, and they are expected to set growth plans and reflect on them as often as possible. Due to the support she receives from her learning community, she does not see the system as an obstacle to an optimal teaching environment. She credits her mindfulness practice as a way to face "decisions that are beyond my control, but still directly affect my life". She believes that the vision and policies of the system are in alignment with her own. She also reflects on the fact that her organization is small enough to allow every stakeholder a voice when important decisions need

to be made, which includes the development of new policies and the amendment of outdated ones. She feels very much a part of the process and the learning community.

Researcher's reflections. *The role of the learning community and the support provided by the system appear to be critical components when facing the obstacles that are still present in today's educational context. When strong and supportive learning communities are in place, teachers appear more equipped to deal with complexities as they arise. The ideology of the factory model is still evident in some settings, but this model is now being addressed for what it is: an obstacle and not an absolute. Some teachers feel overwhelmed by demands on time and curriculum. Without proper support, guidance and mentorship, these demands cause teachers to feel crushed and angry. However, within the context of a supportive learning community, change can indeed occur: communities can form and systems can grow and evolve. Thriving schools and teachers have recognized the need to work together towards a common solution, and show great courage in the face of overwhelming obstacles. As Wheatley (2002) reflects, "I think the greatest source of courage is to realize that if we don't act, nothing will change for the better. Reality does not change itself. It needs us to act" (p. 27). In situations where teachers and systems are using mindfulness to consider new methods of responding to complexities, change is occurring. True change requires the discipline of systems thinking, which is considered "a discipline of seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing patterns of change, rather than static 'snapshots'" (Senge, 1990, p.68). The following interrelated themes and patterns emerged as a result of this life writing exercise, which will be further explored more in chapter 5.*

Figure 3. Emerging themes and patterns regarding the impact of current systems directions and policies in the classroom.



Life Writing 4: Using Storytelling for Learning Community and Professional Development

Researcher's Reflections

The final life writing was completed in the last month of the academic year. Spring had arrived and schools were in full swing with end-of-the-year activities. Teachers were pulled between academic demands, graduations, field trips and celebrations. The final months of the school year are an intense time for educators, a time when it is critical to slow down and pay attention to the forms of learning that have been discovered and given life. Unfortunately, teachers at this time are still caught in a rapid frenzy that culminates in a burst of excitement and exhaustion by the end of June. It is critical that, during this transitional stage, teachers take time to reflect on the process and on the challenges of the journey. Without this process of personal and professional reflection, the essence of educational praxis will be lost amidst the rush to the end, and we will neglect to marvel at the blooming of our carefully tended classrooms. Life writing allows us a moment to reflect on our story, and on each particular leg of the journey.

Through this process of life writing we expand our personal and professional knowledge of "teachers' and students' lives in the cosmopolitan classrooms that we live in" (Hasebe-Ludt, Chambers & Leggo, 2009, p. 6.) As they explored the reflective and contemplative role of mindfulness in teaching and learning, the research participants' personal stories, reflections, rants and poetic musings have formed the raw data required to get to the heart of the research question. Addressing the research question entails a human process in a complex human system, in that it requires a methodology that asks the participants to go authentically inward. Each of the participants have explored their "heart of wisdom" to gather what they found in their soul as they sought to find perspective in their educational contexts (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012).

Participants' Responses to the Life Writing 4 prompt: Reflect on How Storytelling Can Be Utilized to Build a Common Vision in a Learning Community and to Facilitate Teacher Professional Development and Learning

Pat R's story. Pat was grateful for the chance to reflect on the past two years of her teaching experience, as she felt she had been lacking a mindful appraisal of her accomplishments. She spoke of the power of story sharing in a professional learning context and expressed a desire to be able to meet with a group and share stories. She states that the process of story sharing allowed her to present an authentic view of things that were confusing, frustrating or needed to be fixed. Story sharing, for her, offers much more than what a survey or textbook can teach. She believes that in the future it would be useful for her to continue writing about her teaching experiences and would enjoy having a community to share with. She believes the story writing process has made her a better teacher and she has enjoyed the process.

Jenn's story. In addition to helping her students comprehend the things they need to know, Jenn also wishes to fully understand her students' life experiences. She knows that she needs to understand their complicated stories if she is to find a way to connect with her students and work more personally with them. However, she is ashamed to admit that she cannot find the time or energy to fully acquaint herself with her students' stories, as she is struggling to survive in her own life and feeling very jaded and frustrated. She feels she does not have enough time to show them who she is and how deeply she cares.

Cole's story. Cole described her work with storytelling in the classroom and the powerful applications it has had with regards to engaging with students and building empathy and compassion. She believes that the value of storytelling in the teaching profession is to remind teachers that they should not sacrifice their own stories and their own lives in favor of the

system. She speaks of Rumi being an enduring teacher because he took care to write down his own story, to share his vulnerabilities and his wonderings. She believes this process of sharing could help support the teacher, since "this is a tough gig" and we need to work together to share our experiences. She speculates that if teachers were able to express with each other their joys and sorrows, perhaps they would not feel so isolated. Perhaps they might instead see themselves as part of a community, as part of a larger story.

Hsteach's story. Hsteach states that storytelling has played an important role in developing a sense of community and increasing teacher development. The process of storytelling has built time and space for critical reflection and has set a framework for developing new ideas. He believes that open conversation among staff and their willingness to share stories has established a strong sense of belonging and community. He also has started to notice changes with the student body as they are starting to engage in self-reflection and are starting to understand the value of the process and their growth, versus just the end result.

Byron's story. Byron explores the difference between storytelling and simply using language. He warns of the dangers of just "telling," of simply delivering knowledge without the emotions and experiences that are required for full comprehension of an event. He believes that when we are told how to respond or how to feel, we are denied a shared experience. Storytelling is used to form a sense of empathy for whatever issue is being addressed by creating a shared experience, a common point of reference. He states that storytelling, no matter what its form, can be an effective modality for professional development due to its ability to form and create both shared experience and empathy.

Tasha's story. Tasha speaks of the power of learning through stories, a type of learning deeply embedded in our history. She states that storytelling encourages truth telling, and is

essential for building community and allowing teachers to learn from one another. It opens a space for individuals to vent emotionally, which is essential in maintaining sanity. Storytelling, she feels, provides an "emotional purge" from a space of authenticity, which allows teachers to find ways to improve upon issues.

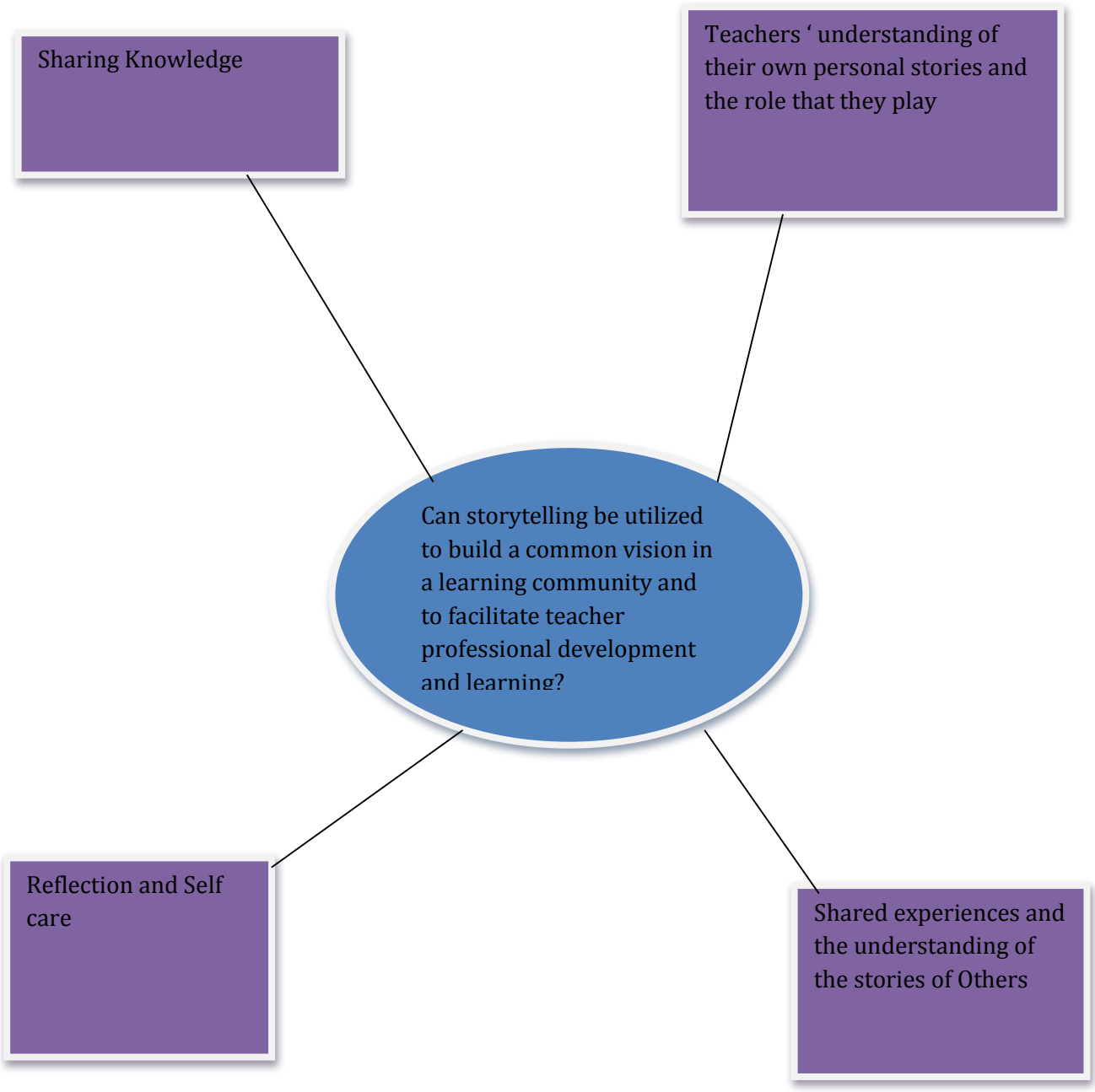
Lynn Green's story. Lynn drew on the history of storytelling as an ancient way of knowing, especially in First Nations communities. She recognizes that storytelling has the potential to inspire learning, but that there are many factors impacting its significance. She states that in some ways storytelling can be quite selfish, and sometimes people just like to hear their own voice and don't have a lot of substance to add. She believes that for storytelling to be effective there needs to be trust, and everyone involved must have a desire to be part of the process.

Nan Austen' story. Nan speaks of how her experience with professional development has been dull and not engaging. She believes that storytelling can be a powerful tool to engage teachers and allow them to teach and learn without resorting to the typical "stand and deliver" method. She does not know exactly how storytelling could be utilized, but hopes that by participating and sharing in the discovery of our stories we can learn more from our own experiences and from the experience of others.

Researcher's reflections. *In this life writing, the role of storytelling in professional development was seen as a valuable tool. Participants viewed storytelling as a way to understand their own voice and learn from others. It was perceived as a more authentic way to explore problems and questions, in contrast to the strict use of surveys and textbooks. Research participants considered that the best lessons are developed from relevant real-life experiences, and the research participants enjoyed engaging in a process that allowed them to explore the*

stories of their lives. Regarding the process of life writing, Chamber, Hasebe-Ludt, Leggo & Sinner (2012) state, "the authors write about their experiences and understanding in stories that are aesthetically composed and ethically conscientious" (p. xxvii.) The following interrelated themes and patterns emerged as a result of this life writing exercise, which will be further explored in chapter 5.

Figure 4. Emerging themes and patterns exploring storytelling, learning community and professional development.



Final Focus Group: Participant Feedback Regarding the Life Writing Process

The final section consists of a reflection on the data gathering process and how it might be used in an educational context, specifically with regards to the exploration of mindfulness. This section asked research participants if the experience has impacted their personal and professional growth. They were then asked to consider if story sharing could be used for professional development and pre-service teaching, specifically with regards to understanding interconnected relationships. Finally, they were asked to reflect on whether the process could be used to establish a professional learning community, and to state any final reflections and comments.

The purpose of this focus group was to determine the implications of the research methodology for professional development, work in the classroom context, and pre-service teacher education programs. The analysis of this section will be conducted in chapters 5 and 6 through the theoretical framework of the Integral model.

Considering the Life Writing Process as a Tool for Reflection and Research

How did you grow, personally and professionally?

Pat R: I believe that having the chance to really reflect on how these last two years have affected me has been, in a way, therapeutic. It has helped me to see that, although I thought I was giving myself time and space, sometimes I needed to slow down and make a bit more [time and space]. I plan on making this part of my professional development by developing a plan that incorporates more reflection and meditation into my everyday practice.

Jenn D: I think this process of life writing actually helped me take some of my angst, some of my frustrations and great successes, and give me a place to put them. By writing them down and drawing with them, I have been able to let many things go that might otherwise be buzzing around my head. It has allowed me opportunities to live within the moment. Reflection

is a key component of learning, and it is through my reflections that I have tried to reconcile some of my feelings about teaching and answer questions about its importance and my place in it.

Cole: Sure, it has given me space to open up reflection and the reassurance that I don't have to solve all the problems in that moment. It has reminded me that the best gift I can give myself and my students is simply presence.

Hsteach: Yes, I think coming into this I had some ideas around life writing and its importance. But as I continue to reflect upon it and think about its role, I am reminded how important it can be to my personal and professional growth.

Byron: Purposely taking time to reflect and think about how I approached things was helpful to my own practice, causing me to reflect on why I do things. I was reminded of the importance of mindfulness in the chaotic and stressful vocation and reasserted the importance of myself as a resource.

Tasha: I don't think this specific experience changed my way of teaching, as I already do follow the notion of understanding my students beyond being in the desk to write tests.

Lynn Green: I know in my youth I wasn't open to the idea of someone telling me or warning me of poor choices, whether outright or in the form of a "this is what happened to me" story. But then as an adult, when I was in the B.Ed program, I relished the stories that I heard from professors as I hoped that they would help me become a master teacher.

Could Story Sharing be Used for Professional Development and Pre-Service Teacher Training with Regards to Educational Theories and Concepts?

Pat R: I think it would be useful as a way for students to ask questions, or learn the questions that they should be asking. There is a great deal of information that you learn in your

first few months of teaching. I would like to hear how teachers reacted during that first year. Story sharing is one of our oldest forums of communication and keeping this forum active might help encourage pre-service teachers to log their experiences as well. What better way to learn how the theories and concepts live in the real world, than hearing the stories from the front line!

Jenn D: Yes, absolutely. It can help us decipher the stories we tell about ourselves. It can help us to analyze our own journey to teaching. It is a difficult job and knowing or trying to understand who we are before beginning to understand ourselves as teachers is critical. As we continue to teach, if we do not reflect, we stagnate. Stories also provide us with an opportunity to share and grow together.

Cole: Yes, although with many caveats: it is so untried that it will require analogous emphasis on trust building and relationship building amongst teachers, requiring us to adopt the role to each other that our students do to us. "Story sharing" can be misappropriating for those who use such a venue for therapy. I think Freire's philosophy is best suited to develop this work—the idea of looking at human experiences as demonstrations of pedagogy.

Hsteach: I think that there is a place for story sharing for professional development and pre-service teaching education. I started to think about my teaching practice and how it may be affected if I was in a different scenario. Hearing other teachers' struggles and successes helped me gain a better understanding of the schooling system both inside and outside the school where I teach.

Byron: Yes! When I was a pre-service teacher I wanted to know what teachers thought, not just what they did. Shared experiences are vital and knowing that someone has gone through something similar was very important to me, not just hearing about some of the "stressors." We

need to work towards creating a shared community with connections between those with similar experiences, or those who need support to better understand something.

Tasha: Absolutely. I think we are naturally doing this as we learn from each other's stories. I think it is essential in pre-service teaching as it helps new or soon-to-be-new teachers feel like they are not alone in the process.

Lynn Green: I think storytelling has a place in the B.Ed program since pre-service teachers want to hear (I know I did) stories from the front line. And yes I do mean to include reference to the war; I teach in the hood and it can be hard. Some of our students are both vulnerable and vicious, two sides of the same coin. Extreme behavior speckled with sweetness that can bring tears to my eyes.

Could story sharing be used to understand the complex work of systems?

Pat R: As teachers we should know that some of the best lessons are developed from relevant and real life experiences. In our own practice, it would help a great deal to hear how the system actually works. For example, no one ever taught me how to use SIRS to record student behavior, book a substitute or even figure out how to access school/department drives. The first few months of school was figuring out how the system even works! I think it would be interesting to hear someone else explain his or her "crash course" into the system.

Jenn D: Yes it can. Schools are like anthologies… built upon stories. The stories that the students, teachers, admins, the past, the curriculum, and the school board tell regarding what is important, unimportant and interesting…

Cole: Yes, if there was a way for teachers to share their own experiences without simply relegating it to mere chitchat. Also, if there was an emphasis on traditional understandings of the journey of teacher/mentor/sage as a philosophical guide in our community, rather than just a

professional standing. If the tribulations and triumphs of the systems could be understood to nurture growth, it would be useful to share our stories to glean understanding.

Hsteach: Yes story sharing creates valuable insight into the struggles and successes in different schools. Many teachers spoke of issues or successes that were noticed across the board. But then there were also some that changed due to location or other factors depending on the context of the different system.

Byron: The school system is alienated from the public and people truly do not understand what we do—even though they have been through the system in many cases. Broad and non-specific stories could give insight into the process to other people outside of the system—hopefully instilling empathy.

Tasha: I am sure that it can but I am not sure what that would look like.

Lynn Green: I think a common vision in education comes from discussion, sharing and debate. People want to state their opinion and their reasoning for it.

Could life writing be used as a process to facilitate a professional learning community amongst teachers?

Pat R: Life writing would offer the most honest view of how a community of a school is working. If people are writing about confusion or frustration, then something needs to be fixed. The same is for the reverse. Life writing also offers a more personal standpoint than a survey. I also believe that this format allows for learners and professionals to have a more recent view of system issues. If there were an online forum where educators and administrators could post about current issues it would help anyone new to the system to understand the struggles that they are having. If there was something like this in place for me when I started I would not have been so stressed out. I also think professionally we should be discussing our experiences and sharing

how the system, or school, or year has been treating us. Having an audience that can sympathize with our experiences I think would be therapeutic. I am actually surprised that this does not happen more often.

Jenn D: Yes, as long as people are engaged in the process rather than the outcome.

Cole: Yes although I think it needs to include elements of due (or more) ethnography. The examples of story sharing that I see are stilted blogs or cries of help. For it to be dynamic and growth-oriented, life writing needs to be a dialogue. It must be allowed as a parcel of PD, not a cottage add-on.

Hsteach: Yes. I think the idea of life writing is a helpful tool for personal self-reflection. Especially when it is teamed with story sharing. Going through my own stories helps me to get my ideas out in a tangible way, and then when I begin to share, or listen to the shared stories, I am able to further develop my teaching practice.

Byron: Absolutely. I, for one, crave to talk about experiences with those who have also been through something similar. The ability to share emotions (not just experiences) and gain insight into other reactions would be invaluable to a practicing teacher. It also gives a different, more personal, professional connection between colleagues.

Tasha: Absolutely. I think it is easy for teachers, especially in high school, to become segregated within departments or simply closed off from others. This process can lead to more open communication and help in developing a connected community. In doing so, we will be able to share our own experiences and learn from one another.

Lynn Green: I believe that storytelling can work as professional development but everyone involved must volunteer to be a part, they must "buy in" to the process and allow everyone's voice to be heard.

Participants' reflections and comments on life writing and the research experience

Pat R: I am really happy that this life writing has happened. It really helped me reflect on my own process and see what I might still need to work on. As much as I journal on my own, I think it would be helpful in the future to write specifically about school. Focusing my writing might help me cope with the hustle and bustle of school life and possibly work through some of my stress. As much as we all try to create a stress free environment, the everyday struggle still exists. I like to be positive and I think more life writing will be helpful. I absolutely love my job and look forward to many more years of working with students. This outlet of life writing, I feel, will make me a better teacher. Thank you for this, I have really enjoyed the process!

Jenn D: Thank you for having me play a role in this experience. It has been a gift.

Cole: Thank you for having me be a part of this! It has helped me truly.

Hsteach: I think my main comment is that I not only believe that it works, but in many situations have seen it work. It has helped me to improve my practice, and has made me feel understood and supported.

Byron: Overall, the process was beneficial by causing me to reflect upon my own practice and where my emotions and thoughts come from. It took time out of my day, which at times was difficult, and forced me to take a few moments to reflect and to remind myself that I am allowed to breathe.

Tasha: I think that it is a very interesting topic. I would have enjoyed meeting with other candidates, just to see their topics and bounce ideas off others.

Lynn Green: Thanks for letting me spew my story out to you. It has helped me understand who I am and how I teach.

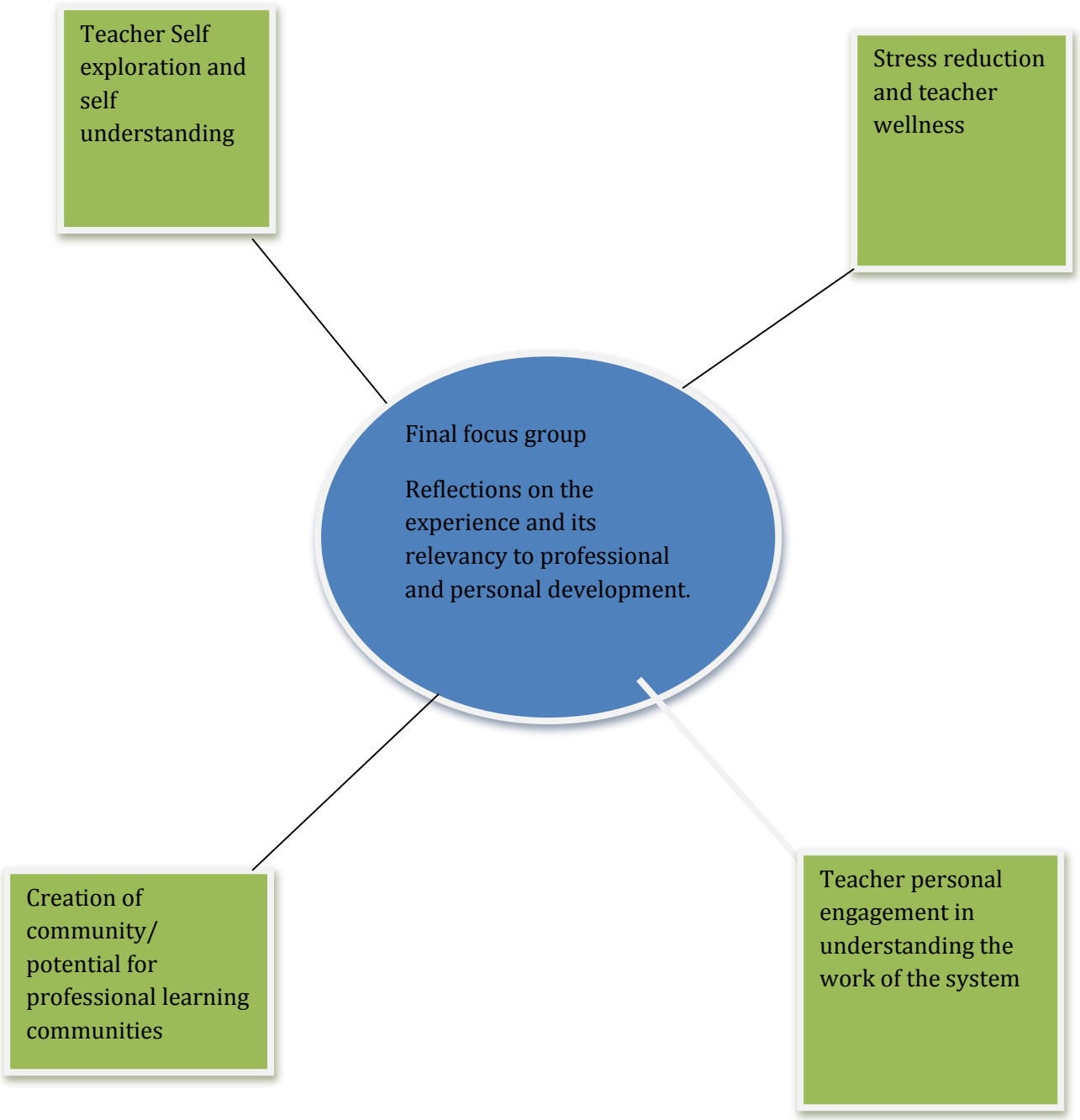
Summary of Focus Group Reflections on the Research Process

The process of life writing to explore the research question was seen as beneficial to the participants in a variety of ways. Primarily, it encouraged self reflection, which is a critical competency required in the profession. As Dall'Alba (2009) reflects, "Learning to become a professional involves not only what we know and what we can do, but also who we are" (p. 34). The journey of an educator should be one of ongoing reflection. The data reflects that by involving teachers directly in the process, via their own personal stories, their personal engagement increases. Teacher engagement in the educational process is highly significant towards the success of the students. If teachers are not engaged in their work, it is difficult, if not impossible, to engage the students.

Life writing also shows the potential to create a community of learners. The new vision of education requires teachers to work collaboratively towards a common goal, and life writing appears to be a portal to this process. Finally, and most significantly, the data shows that life writing is effective at reducing teaching anxiety and supporting teacher wellness. As teacher burnout is a significant concern, the implementation of life writing can significantly affect how we approach professional learning and pre-service education.

Below is a summary of the key themes that emerged from the focus group activity. These data are analysed and explored in chapter 5 and 6 with regards to their implications for future research considerations.

Figure 5. Mindmap summarizing the key themes of the final focus group.



Chapter Summary

In this chapter, the research process was reviewed and the backgrounds of the participants are established. The process of Integral life writing was then summarized. Each life writing prompt was then divided into themes and ideas, which were presented on a mind map. , The final focus group allowed the voices of the participants to be authentically heard, and the key themes and ideas that emerged in the final reflection were captured for further analysis.

Chapter 5 will incorporate the AQAL theoretical framework to interpret, analyze and integrate the themes and patterns in order to clearly address the research problem and its relationship to the academic literature explored in this dissertation.

Using the AQAL Framework to Understand the Life Writing Themes

In this chapter, Wilber's (2000, 2006, 2008) Integral model (AQAL) will be used as a theoretical framework to connect and integrate the research data gathered from the initial interviews, the life writing experience and the final focus group. Using the overriding philosophy of *Integral Life Practice* (Wilber, 2008) as an exemplar, this research will explore the concepts of *Mindful Integral Life Practice for Teachers* (MILPT), specifically with regards to the role of mindfulness in curriculum and learning. Although common themes and patterns did emerge from the data, the research did not yield an all-inclusive pattern or theme that fit all the participants perfectly. Using the AQAL model, the research can be used to create a framework, "that can help us make sense of the many options made available, providing ultimate flexibility and inclusiveness" (Wilber, 2008, p. 9).

This framework aligns with the original intention of the research to create reflective, mindful spaces for students by first working with their teachers. The research sought to explore the personal experiences and life stories that inspired these teachers to seek mindfulness as a quest to improve both their teaching praxis and their own sense of wellbeing. Through the research process the participants identified the struggles within themselves and within others. As a result of this reflective process they found themselves in a place where they could apply that learning and knowledge to the teaching of others, specifically with regards to empathy and compassion. As Smith (1999) reflects, "by facing those whose faces have been burned by the fires of life, seeing myself in them, I become more fully human, more open and generous, more representative of this thing we call Life" (p. 24). This Enlightenment, gathered through the deep exploration of the role of mindfulness, becomes reflected in the ways in which teachers approach the education of children. Mindful practitioners explore "a form of teaching that is informed by

contemplative practices and teacher inquiry that enables teachers to interrupt their harried lifestyles" (MacDonald & Shirley, 2009, p.4). Mindful teachers are able to create spaces for mindful learners. It is evident from the data that current system barriers and complex classroom conditions significantly impede mindful teaching, and thus a careful review of the current educational context with regards to the wellness of both the teacher and the student is required. This statement will be supported throughout the development of this chapter via the theoretical framework.

The Integral framework allows us to explore the research problem from first person (I), second person (You + I = WE), and third person (It, Its) perspectives. The framework allows a broad analysis of the varied experiences of the research participants, explored through the different perspectives.

Individual Interior -Thoughts, feelings, intentions and psychology	**Individual Exterior** -Physical body and behavior
Collective Interior -Environment and social structure	**Collective Exterior** -Systems

Adapted from Wilber, 2008, p. 28

The research questions, and the themes emerging from the research questions, are mapped onto the four AQAL quadrants as a means of systematically exploring the perspectives that impact educators in complex systems. Teachers working in an environment of complexity and change, are challenged to understand the interconnected factors that impact their work.

Although each quadrant could be studied as a separate area of focus, the impact of the interconnected relationships of the different perspectives must be acknowledged and understood.

The main research questions are reviewed within the working framework for data analysis and interpretation.

Table 14. Mapping the Research Questions onto the AQAL Quadrants

Upper left – Interior Individual – Subjective ***Mindfulness and Self (I)*** The inner explorations of being an Educator 1a. What is the teacher's understanding of mindfulness? 1b. How do teachers implement mindfulness in their own personal and professional practice? 1c. How do teachers understand mindfulness in the classroom context? 1d. Why do teachers use mindfulness in their teaching?	***Upper right – Exterior Individual – Objective*** ***Mindfulness and Science (It)*** Learning sciences and contemplative neurosciences 2a. How do teachers interpret the curriculum mindfully and design their learning environments with sensitivity to individual needs? 2b. Are lessons designed and assessed with regard to students' attainment of mindfulness? 2c. Do teachers understand the cognitive and physical impact of mindfulness in teaching and learning?
Lower Left – Interior Collective – Intersubjective ***Mindfulness and Storytelling (We)*** The exploration of the common themes we share through the life writing process 3a. What is the impact of life writing in regards to building a common vision and identifying common themes? 3b. Can storytelling via life writing be used as a tool for understanding the role of mindfulness in curriculum and learning?	***Lower Right – Exterior Collective – Interobjective*** ***Mindfulness and Systems (*Its)** Current system and provincial direction with regard to the present context of our educational landscape 4a. What is the connection between mindfulness and Inspiring Education? 4b. How does mindfulness align with the goal of personalization of student learning? 4c. How does mindfulness align with the current vision of the B.Ed program at the University of Calgary?

3c. How can life writing be utilized in professional development?	

Analysis of the Themes and Patterns of Meaning that Emerged from the Interviews

Each of the research participants completed the initial interview questions. Questions were sent to the participants via email and the d2l shell. For the majority of the participants this format was effective. However, future research in this area would benefit from face to face interviews, a format allowing a more intimate connection with the participant. The connection in this particular research was maintained because all the research participants were graduates of the Werklund School of Education and had already established a culture of trust and sharing with the researcher. During the data analysis the following themes emerged, which are summarized in the Integral model framework.

Summary of Interview Themes on Narrative and Mindful Practice

During the initial interview the research participants demonstrated an understanding of the potential that narrative inquiry had for personal mindful practice as well as for their professional development.

Table 15. Interview themes on the use of narrative inquiry and mindful practice in the Integral Model

Upper left – Interior Individual – Subjective ***Mindfulness and Self (I)*** - Some exposure to mindfulness training at the University -Types of practice included meditation, intuitive massage, journaling, yoga, massage, martial arts, Buddhist practice and prayer	***Upper right – Exterior Individual – Objective*** ***Mindfulness and Science (It)*** - Most are aware of a link between mindfulness and the brain. -The exploration of mindfulness was a result of some type of experience that required the participant to seek wellness
Lower Left – Interior Collective – Intersubjective ***Mindfulness and Storytelling (We)*** -Participants are comfortable sharing stories and understand the significance of story sharing to the work of teaching and learning -The role of experiences is critical in the understanding of teaching and learning	***Lower Right – Exterior Collective – Interobjective*** ***Mindfulness and Systems (*Its)** -Storytelling and story sharing appeals to the research participants as a tool to understand the systems they are part of, but the demands of the system do not allow them this type of reflection

Summary of Interview Themes of the Participants' Personal Definitions of Mindfulness and the Role of Mindfulness in Teaching and Learning

All of the research participants could provide a working definition of mindfulness. Some of their responses refer to the need for mindfulness to avoid burning out, as mindfulness allows a person to "take a step back before a decision" (Cole, 2015). The participants understand that

mindfulness is an awareness of themselves as well as an awareness of others. Tasha (2015) calls mindfulness "the ability to see beyond the prescribed curriculum and build those human relationships which will lead to more fulfilling curriculum experiences."

Some participants are struggling with the definition of mindfulness due to feelings of stress. Rhap states, "I am not sure how I define mindfulness as I feel overwhelmed at work. I am finding it hard to be present with my students and even myself."

All research participants recognize the need for mindfulness, as shown in the following comments:

- "Our world is too fast and [we] need to learn how to breathe and calm down" (Pat R.)
- "Anxiety is on the rise in all avenues of society for many reasons" (Byron)
- "Our staff has observed a significant amount of students who suffer from anxiety, depression and unhealthy stress management. Our hope is that mindfulness will help students become more resilient" (Nan)

Table 16. Interview themes on mindfulness and the role of mindfulness in teaching summarized in the Integral Model.

Upper left – Interior Individual - Subjective	***Upper right – Exterior Individual - Objective***
Mindfulness and Self (I)	***Mindfulness and Science (It)***
- Recognize the need for mindfulness for wellness -Understand the types of things that need to be done to achieve mindfulness in personal and professional life	- An understanding of the role of mindfulness in overall wellness
Lower Left – Interior Collective – Intersubjective	***Lower Right – Exterior Collective - Interobjective***
Mindfulness and Storytelling (We)	***Mindfulness and Systems (*Its)**

-The need to connect with a learning community to share stories and help each other reach a mindful space	- The perceived workload presented by the schools and the system is a significant barrier to mindful praxis

Summary of Interview Themes on Mindfulness, Health, Wellness and Brain Development

Based on the initial interview, all participants acknowledged the connection between mindfulness, health and wellness (see the Summary Table in the Appendix). Participants working in special needs settings had a higher understanding of the impact of mindfulness on brain development. Cole (2015) reflects, "the neurosequental model of therapeutics has a great deal of power to soothe the amygdala fighting the flight or fight response." In her high needs setting, this understanding of the connection to brain development is critical. Jenn D (2015) reflects, "mindfulness is the ability to move people from their limbic brain into their pre-frontal cortex where well thought out decision making can happen." Nan (2015) identifies the benefit of "increased neuroplasticity, better memory, problem solving skills and a more highly developed pre-frontal cortex." The remaining participants either assumed that there was a connection or were unaware of any connection. This initial data points to the need for more training in the learning sciences, specifically in the neurosciences and the impact of mindful practice on brain development. This conclusion is demonstrated by the first two AQAL quadrants, and will be addressed in chapter 6.

Table 17. Interview themes on the interior and exterior perspectives on health and wellness.

Upper left – Interior Individual - Subjective	***Upper right – Exterior Individual - Objective***
Mindfulness and Self (I)	***Mindfulness and Science (It)***
-Yoga	-Increased neuroplasticity

-Allowing my mind to relax has helped my own wellness -I have used mindfulness in my own mental health management	-Stress management due to a shift in the brain regions -NMT model used in high risk settings

Summary of Themes from Initial Interview Questions

The participants have a basic understanding of mindfulness and the role that it can play in curriculum and learning. Many have been drawn to mindfulness through personal experiences, which will be explored in the life writing section below. Each life writing exercise will be aligned with the quadrant it explores.

Life Writing 1: Personal Journey to Mindfulness – Analysing the themes in the Upper Left (UL) Quadrant

Participants responded to the first life writing exercise in a variety of forms, including Q & A, art work, poetic musings, and powerful memoir pieces. The following is a summary of the critical themes emerging from life writing number one.

Personality Traits

The research participants were all deep and reflective thinkers. The participants identified themselves as artists, poets and storytellers who were independent and self-sufficient. Some identified themselves as rebellious, and some recognized that they were called to teaching, as though by some force. The data supports a certain personality type that is intuitively drawn to the concept of mindfulness in teaching.

Pat R: Like most, my struggle through life has been tough and instead of allowing the insanity of my life to bring me down, I have often used it as a space to grow. I have become an extremely outgoing and often loud person.

Rhap: I barely passed each grade and scraped my way into University.

Jenn: My brain is like a toy train set. Looping around, focused, unfocused.... noisy, clacking and I cannot seem to turn it off. Sometimes, I get stuck, the train derails and I lose my bearings. These are my moments of complete collapse. The moments when my body has had enough punishment, enough pain. Enough of the endless clickity clack.

Cole: I have often felt like a foreigner, even an imposter, at war with my own body, raging battles against established traditions. I have splayed myself out in dark rooms (in buildings and in my mind) and I have learned to escape both through mindfulness.

Hsteach: A big part of my development into the understanding of mindfulness comes back to my desire to know a person's story. I also think this is what drew me to teaching, and in particular teaching math. I saw math as a subject of fear for students, but I believe that all students can learn math, it just takes a different approach or a different amount of time.

Byron: I have always been a personal conundrum. I am both, what you would call, a type A and a type B. This has caused me a sense of internal struggle. In my personal life I am a bit lazy and unenergized. My professional life is a whirlwind. I am a work in progress with many remissions and relapses. Essentially, I am a stress case. But I remain learning and coming to know myself. I am learning how to love the parts that I hate, and let go of things that have haunted me.

Tasha: Like many, my life is in constant movement. It is rare for me to slow down and reflect on what is happening, what I have learned, and how to make changes.

Lynn Green: I made a promise to myself that once I had my own agency and the power over my own life that I would never be unhappy again. I may not know what it's like to live in a refugee camp but I know the feelings of hopelessness, of loneliness, and of isolation.

Nan Austen: I was a smart and entitled child and my mom struggled to parent me. Childhood for me was dramatic and precious. I try not to hold it against myself. I whine to leave the piano, but I am defeated in a herculean battle against my parents. Mom says I must sit here for 30 minutes. So I sit and sit. I breathe, and I hum and I daydream. Eventually, I lose sight of the anger and tension that was encasing me a few minutes earlier. I can just sit here and be. I was a precocious child who bored easily and acted out when uninspired—with invested compassion.

The research participants interested in mindfulness showed a personality full of passion and a strong degree of empathy and compassion for others. This rendered them suitable for this study, for they were willing to address the complexities of their own Being and how those complexities impact the way that they teach. The participants were able to recognize that their own complexities form part of the filter through which they interact with others. As Smith (1999) reflects, "These Other sides of my face, I must face too, if I want to be a teacher, or more accurately, if pedagogic authority is to flow out of me in the manner of the world's upholding, in a way that reveals the deepest truth of the world rather than acting against it" (p. 23).

Life Experiences

The life experiences of the participants impacted their perception. The common themes that emerged were childhood struggles, personal trauma and obstacles, critical illness and workload demands. The endurance of life obstacles can often serve as a significant catalyst toward the journey to mindfulness.

Pat R: Like most, my struggle through life has been tough and instead of allowing the insanity of my life to bring me down, I have often used it as a space to grow. Having a more difficult upbringing places a great deal of weight on my heart and I need to find a way to call attention to it without bringing sorrow.

Rhap: I have come to realize that my life experiences and my emotions both inside and outside of the classroom have had a huge impact on my ability to engage and explore academically. My real learning took place when I travelled to Germany with Holocaust survivors.

Jenn: My story is exactly that…a story. Such a mess of truth and fiction of the past. The memory. It is in the remembering, reliving, and recreation of my past that I have shaped my present and my imagined future. Then I find myself in bed, in tears, in the hospital. I cry. I cry for help, pity and out of pure frustration. And then I slap a band-aid on the wound, go to sleep and go on.

Researchers' note: during the time of the research Jenn was diagnosed with a heart defect that caused her visits to the emergency room. Her focus on mindfulness became critical as the research progressed. Her mindful artistic journal became a critical part of her holistic wellness.

Cole: I'm a wanderlust with a robust history of trodding through the world, and I have spent considerable time living outside of my comfortable, given life.

Hsteach: My journey to mindfulness started back in high school, when my school participated in challenge day. It was a day that allowed us the opportunity to break down the barriers that separated us from the people that we passed in the hall each day.

Byron: I was given a teaching assignment that ensured that I would be incapable of achieving perfection. In retrospect, these things are always trivial and moments of learning. However, at the time, my world crashed around me. Instead of having a safety blanket of education, expertise and experience - I had a vague familiarity - that also happened to be 10 years old.

Tasha: I believe mindfulness is being aware of the world around you. It is about being sensitive to the people in your life, which impacts your interactions and treatments of them.

Lynn G: The ambulance sirens outside my window hadn't woken me but my sister's cries did. I can still see her red face as she sobbed for the father who had understood her best. Then, it was my mom coming home to tell us the news that he had died. There was not a chance to say goodbye. It has been twenty-five years. Ever remembered, ever loved.

Nan Austen: If this story were special or unique, if I were a hero, I may feel justified in giving it so much weight. But really, it is not. This is not a special story and although it changed my life, it won't change yours. I selfishly hoard this tragedy: this loss is mine to relive and revise as I see fit. But the true tragedy is that this story is so normal and my heroic journey and yours are the same: we will connect over a shared loss because everyone has lost something to cancer. My mother is currently at the Tom Baker cancer centre receiving treatment. While her prognosis isn't encouraging, she is fighting as hard as she can and our small but mighty family is fighting beside her. Please note, during this time I am also working full time to pay for school and cover our living costs.

The life experiences of the research participants play a critical role in determining their understanding of mindfulness and their ability to implement mindful strategies under stressful conditions. By reflecting on their own personal experiences they are better equipped to face and respond to obstacles. As a result of their self-exploration, they have reached a higher understanding of the collective experience of becoming fully human. This is a critical skill that teachers need to be able to embody, as, "through our writing and our willingness to share our writing with others, we perform our commitment to living with careful intent, critical interrogation and thoughtful awareness" (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012, p. xxvii). This approach is rooted deep in the history of the Academy, as exemplified by Saint Augustine in the fourth century. As Smith (1999) remarks, Augustine's *Confessions* were "an experiment in the art of introspection, with introspection being the means by which to unravel and describe all the ways in which the human soul could be devious in search for its true, divinely inspired identity" (p.12). Through the process of self exploration, the research participants identified significant incidents in their life stories, each of which are "narratives of

personal experience that are always connected to the social, political, cultural and historical dynamics of identity, values and transformative possibilities" (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012, p. xxvi.)

Mental Health

Mental health was a common theme in the first life writing experience. The research participants identified themselves as emotional and extremely sensitive. Their life writings spoke of OCD, stress, anxiety and clinical depression. Mental health was addressed through stories of perfectionism and high achievement. However, the participants' extreme sensitivity positively exhibited itself through their highly developed empathy and compassion, having significant implications with regard to their interactions with students. Lynn Green (2015) expresses that "teaching isn't about knowing exactly what someone is going through but taking experiences from your life and recognizing the feelings that have been learnt from them—compassion, patience, love, acceptance and empathy to name a few—and remembering to keep them in mind when working with students." The ability of these teachers to face and address their own mental health challenges is critical to the way that they teach others. Smith (1999) remarks that, "as adults, we inevitably suffer the cultural diseases of our time, but then we reproduce them in our children to the degree that we have not healed ourselves" (p.xi). The life writing process showed the participants' recognition of mental health and their desire to begin the healing process for personal wellness and professional growth.

Pat R: Mindfulness for me has been a long hard path. I typically take on many projects at once and keep myself very busy. For example, when I was doing my BA, I finished it in two years while TAing, doing research, tutoring, working and taking 6 classes. I don't know why I do it to myself, perhaps I like a challenge, but I needed strategies to help me survive.

Rhap: I am an emotional and extremely sensitive person. My empathetic nature truly has had an impact on the how and why and the means in which I learn, a realization that helped me decide to enter the teaching profession.

Jenn D: Feeling too deep, caring too much, wishing, wanting, hoping to change. I medicate. I need my pills everyday to quiet the chaos, and for the most part it works. What I wish for is peace. So what is mindfulness? I like to think that it is found in my critical eye, my reflective nature, my want to dwell.

Cole: The brain, competing between various demands, can often become overwhelmed, which obfuscates the true power of reflection. Acknowledging glitches/nonsense/mistakes is a method of casting off assumptions, exploring tangents and gaining insight into a wider whole.

Hsteach: In my first year of teaching, I was fortunate enough to be nominated for an award, and as a result I was asked to provide reflections on my first year and teaching. At first, I was stumped, I could not come up with anything and everything that I wrote was wrong.

Byron: I ran myself into the ground and nearly experienced a full-on nervous breakdown—counsellors, doctors and medication included. Throughout this experience, I lost touch with myself, the moment, and what I had originally signed onto this profession to do. Thinking back, it was never about being the best, the smartest or the most perfect. It was for the students and for myself. All of this forced me back to square one.

Tasha: It is truly a process of putting out one fire after the next. In reflection, I do believe that mindfulness was something that I did unconsciously, due to the landscape of my lifestyle.

Lynn Green: When we were thirteen, my best friend Chloe was diagnosed with depression after multiple suicide attempts, one that involved swallowing her father's heart

medication. Before the attempts took place, but after the dark thoughts began to ravage her brain, I was her psychologist. Empathetic by nature I began to take on her thoughts as my own and I believed if I fought hard enough I could win this battle for her at the ripe old age of 13.

Nan Austin: I filled my life with as much as I could during this time, although I turned away from music and other creative pursuits: there was too much space in creativity and too much room for heartache. Instead, I worked to exhaustion.

The themes of mental health, specifically when faced with incidents of stress and anxiety, emerged as part of the research participants' explorations of their inner journeys, combined with a recognition of the obstacles they have faced and overcome, or are still struggling with, in their personal and professional lives. This inner peace is an essential step that teachers must take prior to working with students. Smith (1999) refers to this need for equilibrium with regard to contemplative practice. He states that "the true aim of contemplative practice is called *Upacara,* referring to the fact that once inner peace has been found, one must embark on a difficult new journey of investigating one's 'outer activity' piercing its illusions and repudiating its claims when necessary" (p. 4). The final theme that emerged from the first life writing practice was the need to implement mindful strategies or contemplative practices into one's personal life in order to deal with experiences, personality traits and mental health.

Mindful Strategies

There is a tension between an ideal teaching philosophy and the actual situations that teachers are often faced with. This tension results in an inner struggle and a quest to find balance in a world that is essential unbalanced. In the first life writing activity, participants' spoke of the need to incorporate mindful strategies to help them deal with the complexities of an imperfect life so that they may find holistic wellness. Achieving this balance is an ongoing struggle for

most of the participants, as they are faced with the traditional factory model of school that is constrained by rules and routines. They are trained to answer and respond to bells and adhere to rigid expectations. Teachers instead need to focus on changing their response from one of stress and anxiety to a place of mindfulness and, when the bell rings, to remind themselves not to rush but to breathe. As Nhat Hanh (2009) reflects, "these are the bells of mindfulness. When we hear the bell, we stop talking and moving. We relax our body and become aware of our breathing" (p. 20). Schools are filled with bells demanding teachers to hurry up and move ahead. The following data reflects how the research participants are redefining the message of the bell and are instead using these cues to open up spaces for breathing.

Pat R: The mindfulness that I have created for myself now is how I am able to create balance in my life, how I am able to appreciate the process and enjoy the blessings that I have. When my students write, I write too.

Rhap: I am struggling with mindfulness. I am so busy and overwhelmed that I feel like I can not add anything else to my plate. I cannot write for you now. My writing is crap.
Researcher note: Rhap is finding it very difficult to cope in her current environment due to the demands of her school and her administrative team.

Jenn D: What I wish for is peace so I practice yoga, go on diets, eat nothing healthy, stop practicing yoga and onward the cycle continues. I crave a space. A chance to focus, to breathe in and out and in. Distracted by nothing, carried away by nothing, just the rhythm of my body as I inhale through my nose and exhale out my mouth, in and out.....
Researcher note – Jenn continues to deal with heart problems.

Cole: I am a storyteller, I am a poet, and I am a wanderlust. Learning therefore is a process of acquiring and revealing. Creativity is the primary method in which we release our

knowledge reservoirs and so to understand myself and my thoughts I write poetry from deep spaces and places. I notice little things in the world that serve no utilitarian function beyond just making life more awesome.

Hsteach: Whenever I would go for a run, I would always reflect upon my life and everything that was going on around me. It was my place of peace and comfort, where I would free write in my head. I go for a run to clear my mind. When I come back, I start writing not only about my teaching, but more about the stories that stayed in my mind. I consciously, or subconsciously, participate in the act of mindfulness.

Byron: Mindfulness, to me, is the moment of calmness in the storm, the ability to hear a single voice through the thunder of a thousand people and the ability to find yourself—even when you feel that you've strayed too far from the path that you happened to be on. I'm learning that each moment does count: even the quietest of moments are as important as the life changing ones. If I am going to be a beacon for the next generation, I must first be a beacon for myself.

Tasha: Mindfulness to me is taking those moments to reflect and reconnect with yourself. To essentially check in and rejuvenate. I also believe mindfulness is being aware of the world around you. It is about being sensitive to the people in your life, which impacts your interactions and treatments of them.

Lynn Green: My choice to change my life was accelerated by a tragic death five years ago. Our high school friend, Samina, who I hadn't spoken to in years, found herself in the hospital with pneumonia exacerbated by a kidney disease. Due to complications, her kidneys failed, along with both lungs. She went into cardiac, was on full life support and in a drug induced coma. She was brain dead and her parents had to make the unbearable decision to take

her off life support. As I watched Samina with her vacant eyes and rattling breath all I thought about was a line from Shawshank Redemption:

"Get busy living, or get busy dying"

I realized life was too short to be as unhappy that I was. I chose to honor my friend who was not able to live and get busy living myself.

Nan Austin: After death, I emerged from the hospital changed but relatively unscathed. The coping mechanisms I developed in that time period still serve today, and the compassion I learned during those three years allowed me to connect with people. The trajectory of my life was not completely interrupted, but it could have been if I had turned to less effective coping mechanisms to get me through each day. What I've learned is that when a person's brain is healthy, mindfulness is a choice: to be psychologically intact despite circumstances is a choice. I breathe in. My mom is still alive. I breathe out. In this moment I am okay. This became my mantra both within and without the hospital; when anxiety would seize me in the midst of living, I would remind myself to choose something different. I'd pull my focus to my breath and each moment would spin out around me and allow me to celebrate my aliveness (or sometimes, my okayness).

Overview of the Themes of Life Writing 1

The recognition of the need for mindfulness in one's personal and professional life is a significant step in the journey towards mindful classroom praxis and a mindful world. This realization is part of the teacher's journey to "understand one's own tradition with greater insight and creativity, one's cultural heritage linguistically and ritually mediated" (Smith, 1999, p. 2). This is all a part of creating a cohesive and authentic life story, as "the way we feel about the

past, our understanding of why people behaved as they did, the impact of those events on our development into adulthood—these are all the stuff of our life stories" (Siegel. 2011, p. 171).

This critical understanding of our adult life stories is essential to the growth of the teacher, as it quickly becomes apparent that

> pedagogical confidences learned in one's teacher training may have only limited application in the face of any classroom's true complexity: and that dealing with complexity requires not another recipe for control, but precisely the opposite, namely a radical openness to what is actually happening. (Smith, 1999, p.22)

The data from the first life writing experience shows the desire to be present and open and face one's inner teacher, which is critical to the personal and professional development of the mindful teacher. As Smith (1999) reflects, "Maybe this is the time to embark collectively on a new long journey inward, not for the purpose simply of celebrating our personal or collective subjectivities, but the more noble one of laying down the outward things that presently enslave us" (p. 5).

Table 18. Summary of Life Writing 1 themes into the upper left quadrant of the Integral Model.

Upper left – Interior Individual – Subjective Mindfulness and Self (I)
How do you personally define mindfulness based on your story?
-Personality traits
-Life experiences
-Mental Health
-Mindful strategies

Life Writing 2: Teachers' Use of Mindfulness in their Classrooms – Analysing the Themes in the Upper Right (UR) Quadrant

The second life writing exercise explores ways in which teachers incorporate mindfulness into their curriculum design (see the Summary Table in the Appendix). The participants used personal reflections, poetry and art to express how they understand the role of mindfulness. Four main themes emerged from this life writing: (1) an understanding of the need to breathe and calm down, (2) a recognition of the need to focus on the individual learner and their specific learning needs, (3) an understanding of the importance of curriculum as a lived experience, and (4) reflections on what it means to be a teacher of the heart. The following is a summary of the key themes that emerged at this point of the research.

Understanding the Need to Breathe and Calm Down

There was a reoccurring motif of the impact of stress and anxiety on both the teacher and the learner. The participants focused on the use of mindful strategies to create what Jardine (2012) refers to as *Pedagogy Left in Peace,* where, despite "difficult causes and conditions, free spaces are opened up where things can happen to us, and our lives can be shaped with some graciousness and mindfulness" (p. 11). The participants explored the use of mindfulness as a wellness technique and a tool to build resiliency. The participants also noted an increased sense of community, which correlates to the work of Davidson et. al (2012) who state that "positive mental skills and socioemotional dispositions support academic success and pro-social behaviour in young people" (p. 146).

Although for the most part the participants were unaware of any direct connection to the learning sciences, they intuited that mindfulness learning may be linked to neuroplasticity. According to Siegel (2011), "we are now discovering how the careful focus of attention

amplifies neuroplasticity by stimulating the release of neurochemicals that enhance the structural growth of synaptic linkages among the activated neurons" (p. 42). Such discoveries suggest the need for further research in the area of the role of mindfulness on neuroplasticity and holistic wellness.

Pat R's classroom. "I try to create a space in my classroom where students can just think and be disconnected from the over stimulated word. I really believe that if I'm able to help my students to just think and be present in the moment, I'm helping them be mindful of what they need. I've noticed more of a community growing in my class with this practice. They have pressure on them from every direction. I want my class to be a place where they can just check that at the door and just enjoy the space."

Rhap's classroom. "Mindfulness must have a place among curriculum learning, both for students and teachers. We are a society lost in technology, standardized tests, and bureaucracy. As a teacher, I often feel lost in the system with the amount of student emotional issues that I see on a daily basis, and I know that the students feel lost too. We need to go back to our ancient ways of knowing."

Jenn's classroom. Jenn continued her life writing exploration through her artist's journal:

"I need to understand and move forward knowing that today each of my students bring the whole of their lives, their complicated lives, into my classroom. And yes this is why I must always check in with myself and my students. If I don't, I lose the connection. I have to take a step back, take a breath, and stand on my head. And then when it is clear again, I can move forward."

Cole's classroom. **"**We use meditation and mindfulness in the classroom deliberately. For example, our walk up to the gym can get loud and disordered. I begin challenging students to count the steps it takes to get from our door to the gym. Each time, too, to see if it is the same. It is a big task and they usually give up in order to put their minds to something else but they like the challenge and they see how mindful focus can help them regulate. We also do a lot of neuroscience lessons, sensory dosing, and storytelling to learn about a myriad of ways to experience life."

Hsteach's classroom. "During the class I have worked a lot with mindfulness, instilling a free writing time at the beginning of each Connect class. Free writing has always been a favorite activity of mine and I wanted to bring it into the classroom setting. As we did at the University, I give the students time to write—sometimes a line to get them started, and sometimes just with what is on their mind. At the end, I let anyone who wishes to share, share their work. One thing I like about this activity is that it gets students to connect with what they are feeling. Often times their stories will mimic a tone that aligns with how they are feeling that day, or about something that happened."

Byron's classroom. Byron responded with a poem and a follow-up analysis describing the poem as an attempt to find calmness in an overwhelming moment of stress. The frustration and stress has built to a point where the speaker has two options: remain broken and feel defeated, or embrace the brokenness and breathe. By breathing through the frustration, the speaker accepts the chaotic reality of the stress, the classroom and the situation, and finds serenity in the poem's most intense moment.

Through the process of poetic inquiry, Byron explored what mindfulness can look like in a classroom—as a process of finding calmness in the storm. A teacher can either try to fight

against every little occurrence in the room, or let go and ride with it. Finding peace within the situation can allow a teacher to harness an energy that would not have otherwise been accessible. Creating a space for reflection in an overwhelming moment is a form of stepping away, of taking a break from the work happening to re-center and find a moment of peace before continuing.

Tasha's classroom. "I think mindfulness happens without us even being aware that we are doing it. It is in the moments we take to discuss our personal stories, in the one-on-one conversations that we have with our students, in the moments that we provide a work period that allows our students to breathe and to catch up on their work."

Lynn Green's classroom. "I just try to be aware. Of potentially upsetting topics, or keeping my own assumptions in check. I find myself teaching life skills quite often, because the students are in junior high but also because of the change in the culture."

Nan Austin's classroom. "I journal with my students every day. Our guidance counsellor has worked very hard to help teachers develop mindfulness tools that we can share with students. This has been revolutionary for students with debilitating anxiety, but also for students who experience normal levels of anxiety. Our hope is that mindfulness will help students become more resilient."

Researcher's reflections. All the participants recognize the need to breathe and slow down as a critical component of their pedagogy. The participants are exploring different ways to incorporate mindfulness in their classrooms and considering the results with regard to the holistic development of their students. The participants are attempting to remain present and aware and to consider the needs of each individual learner under their tutelage. The second theme explored in this life writing is the need to focus on the individual learner and their specific learning needs.

Focusing on the Individual Learner and Her Specific Needs

The research participants all reflected on focusing on the needs of the individual learner. These needs included academic and cognitive needs, cultural needs, and social and emotional needs. The participants expressed an understanding of the importance of holistic learning while recognizing the restrictions presented by the factory model of education. They view "education as a living practice" (Friesen & Jardine, 2001, p. 4), which requires constant reflection and adjustment. As Eisner (2002) reminds us,

> our students are not uniform, they are not steel, and they do not respond in the same way to pressures of various kinds. Thus teachers will always need the discretionary space to determine not only the matters of means, but also the ends. (p. 583)

Pat R's classroom. "I have noticed that curriculum looks different in each class according to the culture of the room. I have found with higher academic classes, the curriculum is a positive topic that I focus on with students. We use curriculum as a conversation piece as to why we study what we do and how it is intended to help them in the future. In contrast, my curriculum for K/E learners is more life experience and convincing them of the importance of being in school. We typically don't have conversations based around requirements or expectations from the Board. I like to focus on how what we are doing in class will help them in the real world. How does learning how to read and write translate into employment and social interaction?"

Rhap's classroom. "I work to meet the needs of visual, auditory and kinaesthetic learners."

Jenn's classroom. "Curriculum. Plan. Flight, faith, friend, kind, change, heart, friend, kind, change, growth, heart, teach. One. All. Me. Them. Ours. Begin. End."

Cole's classroom. "I focus on the skill of thinking, the discovery of one's own knowledge, rather than on the memorization of knowledge discovered by others. In the same way that an effective curriculum vitae should express more than a list of things done, schooling should tell the story of a human life, of experience of things lived not just looked at. These experiences are personal and unique to each student."

Hsteach's classroom. "In my regular core class I teach grade 10 and 11 math. To help bring mindfulness into the classroom I have students do a lot of self reflection. I have them write assessments online so that they receive immediate feedback on their answers. From this I ask them to reflect upon each question, where they may have gone wrong, and what they did to prepare for this assessment. I also ask them to look at things which may have impacted their performance on their assessment. Throughout the year my hope is that students will begin to develop an understanding of who they are as math students and what strategies help them find the most success in the future. For one student, maybe they don't need to prepare for one particular topic, but they do for another. So I have them put that. Each time I read a student's reflection or have a conversation around how a student views their strengths in math or problem solving, I too evolve my teaching and start to think of more ways that I can help evolve and grow mindfulness for myself, and for my students.

Byron's classroom. "It is important to remember that the students too, may feel overwhelmed at times and this causes me to consider how I can take moments and share them with my students."

Tasha's classroom. "So many of our classroom conversations and assignments encourage students to look within themselves, to explore and study their own stories."

Lynn Green's classroom. "I watch teachers that accommodate and modify work for students as the needs are presented. We have so many ELL learner support plans that teachers accommodate for the whole class. All students are given extra time, teachers print off work for the low students, work is chunked, one on one support is given when possible (which is where I come in), frequent checks for our low students, readers and scribes are used. I see mindfulness in the presentation of the curriculum, not the curriculum itself."

Nan Austen's classroom. "I'm currently entertaining the notion that concentration developed through mindful practice is the key to developing resiliency and self-efficacy. I notice the majority of my students struggle to maintain focus or rush through the task, or just give up. I've experimented with a few short meditations with these students and a debrief afterwards. So far, the analogy between essay writing and meditating has been illuminating for students on a theoretical level but I have not yet seen evidence of improvement in focus, sense of resilience or self-efficacy. This is a work in progress based on the needs of each individual learner."

Researcher's reflections. Overall, the research participants recognize the need to meet the needs of their diverse learners. They are exploring a variety of ways and are carefully reflecting on their different processes, which is critical to the work of education and the professional growth of the educator. Implementing new processes is a courageous step away from the traditional pedagogical practice of "a standardized public education system, with its common standardized curriculum" (Friesen & Jardine, 2001, p. 4). The reflections of the research participants exhibit a willingness to explore and consider the different possibilities for attending to the needs of each individual learner, allowing students to "assume increased responsibility for framing their own goals and how to achieve them" (Eisner, 202, p. 582). This

inclusive approach allows students to become "architects of their own education" who are able to use their learning to find their space and place in the world.

Curriculum as Lived Experience

Aoki (1986/1991) refers to "the tensionality that emerges, in part, from a tension that emerges between two curriculum worlds: the worlds of curriculum as plan and curriculum of lived experiences" (p. 159). This theme of tension emerged through the second life writing prompt. The participants reflected upon the disparity between the presentation of the curriculum and the actual curriculum, and how curricular content challenges can restrict one's awareness of being and living in the world. The research participants engaged in an inquiry as to what the curriculum is, or could be, with regard to the parameters of the real world. Jardine (2012) speaks of this awakening as "opening up free spaces for thinking, for knowledge, for coming to know the real events of our lives and their possibilities" (p. 7).

Pat R's classroom. "Determining the outcome of curricular goals is not just about marking a test or paper to see if they "know" the answer. I like to have my students discuss the concepts. Can they explain their understanding to someone else? Also I have found that focused writing has helped students develop a deeper understanding of the text and additional connections to their own lives. It has become meaningful to them. Students are working well together and supporting one another."

Rhap's classroom. "Learning about the Holocaust in books piqued my interest, but real learning did not take place in such a dramatic way as when I travelled to Germany and Spain with Holocaust survivors. The educational experience allowed me to "enter in" (in some small way) and identify through relationship building, which has become a pivotal component in my educational pursuits."

Jenn's classroom. **"**My curriculum is one of love, of support, of the heart. It hurts, and as much as I would like it to be able to, it cannot be planned. It is written in the moment and mostly with compassion."

Cole's classroom. **"**In a recent project, I showed examples of parody, satire, farce, irony and sarcasm, and students found their own examples to present. That was fine, but what made it real was when they would point out examples later in the classroom. Outside of the formal lessons, when they were thinking about the subtle differences, when they took a chance of being wrong, and when they did it for nothing other than applying learning…. This is a tiny example of how curriculum must live."

Hsteach's classroom. **"**I also try to include mindfulness in problem solving and critical thinking. In teaming with the Science teacher at our school we ran a problem solving/critical thinking mini class during the focus blocks. As we moved further into this we started to really challenge them to create a strategy of how they solved problems. Not just in math, not just in science, but in life. It was interesting as many of the students struggled with this aspect of mindfulness. Being mindful of how they solved an actual real life problem was a challenge! With some prompting the students started to go deeper into the idea of how they actually solved problems in their lives and in the real world."

Byron's classroom. Byron responded to this exercise with a poem revealing the tension between his teaching and the curriculum's expectations.

Drip. Drop. Drip. Drop.
What is falling?
What is dripping?
Sweat scorching down my neck.

Tasha's classroom. "Students have the opportunity to reflect on how the curriculum has impacted them and how their own life experiences relate to the curriculum being studied."

Lynn Green's classroom. "Within my school, which is heavily populated with ELL, the curriculum is not mindful because it assumes the students already know English. The social studies curriculum has the same flaw in that it does not take into account other languages or cultural backgrounds. I see mindfulness, not in the curriculum, but in how the teachers present it."

Nan Austin's classroom. "As a drama and ELA teacher we work a lot with stories. While science gives us fact, story gives us meaning (paraphrased from David Steidl-Rast). Stories allow us to synthesize new information within our own lives, as they allow a point of intersection between ourselves and others."

Researcher's reflections. The data showed an openness to explore various ways that curriculum could be represented and used to connect to the personal lived experiences of those in the classroom. An openness to new processes is critical to effective pedagogical praxis. As Eisner (2002) reflects, "too often we find ourselves implementing policies that we do not value. Those of us in education need to take a stand and serve as public advocates for our students" (p. 583). To serve as effective teachers we need to let go of the standardized way of doing things and connect with the life that we live. Jardine (2012) states that "truly understanding the world is letting go of this grip, and letting ourselves experience this deeply human, convivial, worldly, make up" (p. 18). When we, as educators, allow ourselves to enter into this process, we become teachers of the heart.

Being a Teacher of the Heart

The final theme that emerged from this life writing was the idea of being a *teacher of the heart*. The participants entered into personal explorations via poetic inquiry, deep reflections on the skill of thinking and how we develop that critical skill, and contemplations on becoming fully

developed human beings. Through this life writing activity, the research participants became part of the "complicated conversation" (Pinar, 2006) of curriculum, education and the world, and what it means for students and teachers to find their place in the world.

Pat R's classroom. "I am hoping this focused practice of writing, reflecting and sharing will help students discover a deeper understanding. I am hoping this will help not only prepare them for diploma exams but to be able to develop their own mindfulness, to be able to disconnect from an overstimulated world."

Rhap's classroom. "I want kids to discover how to learn in a way that is meaningful and authentic to them, in a way where curriculum is not learned to receive a good grade on a test, but rather to see throughout time and place what it means to be human and what it means to live with passion and purpose."

Jenn's classroom. "My curriculum is one of love, of support, of the heart. We write our stories, our curriculum together. We fly."

Cole's classroom. "I think curriculum is an attempt to teach the things people should know. With, of course, the assumption being that they need to know these things before they can decide what they want to know for themselves. Being a mindful teacher, a teacher of the heart, means that we loosen our practice to have students follow us, as we walk behind."

Hsteach's classroom. "In my practice I believe this is an important thing to remember. Math is a language, and an art. And with it we can enact the ideals of mindfulness."

Byron's classroom. Byron chose to respond with a poem.

The eye of the storm intrudes
The chaotic serenity rests
In the depth of the greatest pandemonium
It is ruptured
I breathe

The tsunami converges once again
Torrenting and streaming
Into a humble glass.
Calmness.
I drink.

Tasha's classroom. "I am able to connect with my students on a more authentic level, as I get to know them as human beings instead of just another student filling my seats. I am able to create relationships with my students, and in doing so able to create an atmosphere where students feel comfortable to take risks and be vulnerable."

Lynn Green's classroom. "My school is heavily populated with English Language learners. We are aware that we have students from Sudan and other African nations and they may have PTSD. We have students that were born and lived in refugee camps. We are aware that we have Filipino students that have lived with their grandparents for the past five years as their parents have come to Canada to find jobs. We know we have students that have experienced abuse and we also have children that have happy, stable, loving families as well. I support these students by working in small pull out groups, or groups in the classroom, as the diverse learning coordinator.

"Being mindful is not stereotyping. It is being aware of the possibilities. For my own practice, I just try to be aware."

Nan Austin's classroom. "I emerged from the hospital completely changed but relatively unscathed. The coping mechanisms I developed in that time period still serve me today, and the compassion that I learned during those three years allowed me to connect with people. These are the lessons of the heart."

Overview of Themes from Life Writing 2 Combined with Life Writing 1

Four major themes emerged from this second life writing and are summarized below with the themes of the first life writing exercise.

Table 19. Overview of themes from Life Writing 2 combined with Life writing 1.

Upper left – Interior Individual – Subjective	Upper right – Exterior Individual –ß Objective
Mindfulness and Self (I)	Mindfulness and Science (It)
How do you personally define mindfulness based on your story?	*How do you use mindfulness in your classroom context? What does it mean to professional practice and teaching?*
-Personality traits -Life experiences -Mental Health -Mindful strategies	-Understanding the need to breathe and calm down -Focusing on the individual learner and their specific needs -Curriculum as lived experience -Being a teacher of the heart

Life Writing 3: Impact of Current System Directions and Policies in the Classroom – Analysing the Themes in the Lower Right (LR) Quadrant

The third life writing exercise, reflecting on the role of the system, took place during political turmoil in Alberta. Emotions were high amongst the population and the needs of the educational system were of key political debate. For some, this moment in political history might have served as a reminder of our duty to routinely assess the relationship between our greater administrative systems and our roles as educators. An understanding of the interconnected role of the system and our responsibility within that system is a key component required for professional development. As teachers, our understanding of our educational world sometimes requires reframing, as "our understanding of what we are seeing changes according to

the frame or image that we use to shape our viewpoint" (Morgan, 1997, p. 2). It is critical that teachers possess an understanding of the history that has shaped our current educational context. We need to understand the history and its impact if we are to move to a better space. Jardine (2012) discusses this need to fully apprehend the present characteristics and history of our situation, stating that "a pedagogy left in peace entails cultivating a detailed understanding of the circumstances, ideas, images, assumptions, and desires that we have often unwittingly inherited, so that when those ghosts rear up, we don't arrive at them unprepared" (p. 20). We need to be able to reflect on the complexities of the system, the history of that system, and the potential future of the system, in order to develop a common understanding of the interconnected whole. Participating in this process was difficult work for the research participants. As Nan (2015) reflects, "This is so frustrating. I'm not fighting the system, but not celebrating it either. It makes it hard to write about."

Understanding complex systems is no easy task, but its benefits cannot be understated. As Oshry (1995) remarks, "the ability to see the systems that we are part of may be the next level of human evolution. Throughout our history, the absence of such 'seeing' has resulted in endless cycles of misunderstanding, wrongful damage, abuse and annihilation" (p. 47). Without a clear understanding of the system, deep systemic change cannot effectively occur, as sometimes "the harder you push, the harder the system pushes back" (Senge, 1990, p. 58). One cannot form a holistic understanding by investigating merely the components of a system. As Wheatley (1992) remarks, "this reduction into parts and the proliferation of separations has characterized not just organizations, but everything in the world for the past three hundred years" (p, 27). The resistance to holistic comprehension remains quite evident in our educational paradigm. This concern emerged as our first theme with regards to the system impact. The other themes that

emerged were curriculum and content demands, the rapid-paced environment and its demands on time, and the push/pull between the school level and the district and provincial levels.

Responses to the factory model of education

Pat R's system. "The curriculum in the class looks different in each class according to the culture in the room. In our perfect theoretical classroom, teachers would have time to spend with each student every day and work one on one with them. We would also be able to use our time to mark papers and prepare interesting and mindful projects for students. The reality? I spent my entire prep filling out paperwork. The amount of time I spend filling out paperwork and not spending time on students is baffling. The system wants to achieve a certain level of education, yet overworks, overloads and underappreciates its teachers. I became a teacher for the moments in class where I can laugh with my students and see them achieve. I don't want to be a person who struggles with understanding a system that is so detached from the classroom they have no idea what it needs. I'll learn to dance around school politics."

Jenn D's system. "Mindfulness as it connects to teaching and learning must always require reflection. Reaction. I need to understand and move forward knowing that today each of my students bring the whole of their lives, their complicated lives into my class each and every day. It is also about taking stock, checking here and moving *backwards*, if things need to be addressed. So my curriculum is one of love, of support. It cannot be planned, it is written in the moment and most of all with compassion."

Cole's system. Cole writes of the bureaucracy that interferes with the day-to-day practice of teaching:

The bureaucracy is heresy
A behemoth bloated
With jaded dreams
And jagged deadlines

She struggles with the standardized reports that are required in her situation, and these demands conflict with her need to effectively engage with learners in a meaningful way.

Every time we touch hearts
There is a scrape of metal
Reminding us that they are there
That we must report our findings
In their language with tongue-in-cheek pity—
We all know that they will never bother to read it

Through her poetic verse, Cole draws an analogy to the factory model of education and voices her struggle to find her own way within the confines of the pre-existing ideology.

Their voices are strong,
Multiply until you puke
Memorize the geography that we made for you
March in single file until your soles bleed
They don't want to know
That gems need light and admiration
To crystallize on their own time.

Hsteach's system. "The last area I think that has benefited me in terms of bringing mindfulness to the classroom is structures. The first was the scheduling of the Connect class, which has allowed me to work with a smaller group of students for whom I acted as a first line of support and contact at the school. In addition to this, having the competencies as part of the student performance has allowed me to highlight practices in my classroom that I believe are important to student growth and success outside of the content required by the math program of studies. Our school runs a community structure, which has allowed me to be connected with professionals from across subject areas. With the community structure, a group of four grade 10

classes works with four core subject teachers for the full year. This helps students and teachers feel connected and part of the community."

Byron's system. "As a mentor and advocate for the upcoming interest, I feel it is in their best interest to ensure they have the knowledge and resources to live a fulfilling life, not just a life that is capable of producing a profit, or working in a career that will sustain them. It has been shown, by science and philosophy alike, that happiness is one of the key factors to longevity, health and productivity within a society. The de-facto reality is that students in excess of 45 per class will not receive the personalized attention required to feel success and will not meet the exposure to the arts and play that is necessary to develop healthy and happy interests.

Tasha's system. "Working in a factory model system where students come in, we fill them with knowledge and then they leave, causes many challenges to a mindful environment."

Lynn Green's system. "One way that I can help students [is] by making sure the support that is needed from the district is provided. I realize that I am detailed and organized enough to make sure that everything is completed the way it needs to be. But after awhile I find that I miss working with students in the classroom because I am so busy coding and organizing them. I must coordinate information, paperwork, meetings, due dates, etc. between the teachers and the administration and the district. The school district lets the schools know what must happen paperwork-wise, and I have to relay that and make it work for teachers and for our students."

Nan Austin's system. "This organization has a policy of *First time good teaching,* and requires direct instruction instead of Discovery Learning that is so popular right now. These policies narrow my focus in the classroom, and instead of viewing them as a limitation (as strangers to our organization sometimes do), I really believe that they narrow my focus and allow

me to be more creative in *what* I teach rather than *how* I teach. At this point, the key policies of my organization have become second nature to me. While I don't think about them often, they certainly shape my day-to-day teaching practice in a very positive way, which I see directly reflected by my students' success."

Summary of the Theme of the Factory Model System

The research indicates that teachers are working to make modifications within the system and find new ways to grow and thrive in spite of the traditional paradigm. The research shows that the traditional model of learning can work when supplemented with a supportive learning environment. It appears that a heightened understanding of the content and curriculum is key in determining how learning is facilitated. Collaborative, interdisciplinary teaching teams have a significant impact on improving the educational model. We are shifting from an era where education amounts to enabling students "to find useful employment" (Friesen & Jardine, 2001, p.4) to a space of "authentic intellectual work which results in personally, aesthetically or socially useful products and services, instead of completed exercises that were contrived only for the purpose of showing competence or to please teachers" (Newmann, 2000, p 2). The research participants are aware of this shift and the need to work more holistically with students, but are still struggling within a system that is slow to change, as any variation within a system requires time and patience. As the participants are all in their second year of teaching, their educational training and expertise reflects a different theoretical base than teachers of earlier generations. They are indeed the front line of this change in paradigm.

Curriculum and Content Demands

The basic requirements of a holistic education and its curriculum remain a subject of debate. In the next life writing exercise, research participants felt a tension between the content

that they feel should be part of the classroom, and the content that the system expects from its teachers. There is a conflict between perceived curricular outcomes, school expectations, and the value system placed on the various disciplines. The participants' expressed a need to find balance between the written curriculum, core learning competencies, and the skills and attributes students need in order to function in the world.

Pat R's curriculum system. "Part of the work that I did while taking my course in Special Education was reflecting on what an inclusive classroom looks like. In theory, everything works, everyone is happy and everyone is learning. But there is never enough pieces to make that actually happen. That's fine, English exams don't take a lot of time to mark!"

Jenn's curriculum system. "The system…what a dirty word. The system is failing me. Failing my students. Failing. The system makes my job impossible; I am in a dark place now. I feel like no matter what I give it is never enough. I cannot make a difference; I cannot properly prepare them for what is coming. I want to help them and I cry because I am so frustrated, so far behind and lost in a system that does not provide any support. I have students who are so far behind, so far ahead and lost in the middle."

Cole's curriculum system. Cole reflects poetically on how she approaches curriculum, allowing spaces and places for students to grow.

That gems need light and admiration
To crystalize on their own time,
They want you to know
That it is on their own dime

I can summon my energy to fight the old,
To pay the rent on this planet
By rubber cheque

Or I can harness my forces,
Guard my gems with such grace

So as to convince them to leave them untouched,
To create the new

Hsteach's curriculum system. "My first year at my school I taught business, and as a result was put in touch with one of the mindfulness supports from downtown. She has been very helpful in offering support, resources and opportunities for offsite visits to help expand my understanding of mindfulness. I did not end up joining the mindfulness team at our school this year, but I do know they have brought many great ideas, such as offering wellness sessions before major exams for students, and staff meetings for staff. Every day I feel like I can engage in meaningful conversation with my peers or administration that allow me to critically reflect on my practice or expand upon my ideas that I have for the classroom."

Byron's curriculum system. "As a teacher in the system I am finding it is becoming increasingly harder to complete my duties as an educator. I do not suggest that I am not fit to complete my duties but rather have a growing concern, like a nagging cancer, that impedes my ability to be present—body, mind, and soul—with my students. Additionally, the responsibilities of teachers extend beyond the face to face time with students, and are growing exponentially with the loss of support staff, assistants and administrative tasks. Despite these issues, as an educator, I will continue to persevere as that is what teachers do."

Tasha's curriculum system. "I find it difficult to connect with my students in just one semester and there is a lot of curriculum that needs to be covered and received, so mindfulness is not at the forefront. In addition to Alberta Ed curricular outcomes and school structure, additional school-based expectations add to the overall anxiety of students, even though they are put in a place to balance the academic and social worlds. Also, extra-curricular events are crammed into already overscheduled timetables. The benefits of these activities are diminished when they are in conflict with an already overwhelming academic schedule."

Lynn Green's curricular system. "I am so new to teaching with so little classroom experience that I can't think of other policies that impact my day to day activities. With the large number of English language learners in our school my position is mostly coordinating information between teachers, administration and the district."

Nan Austin's curricular system. "Enabling constraints. Shakespeare had iambic pentameter, limiting his choices, which ultimately allowed for masterful work. Teachers? We have procedures and policy. (I guess what I am really trying to say is that if you want to compare me to Shakespeare, I wouldn't argue.)

Summary of the Theme of Curricular and Content Demands

The responses to curriculum and content vary greatly amongst the research participants. Some feel the demands are too high, that there is too much material to cover, and the school expectations are unreasonable. Others feel they have enough flexibility within the curriculum to teach in ways that work for their students. Those who are working well with the curriculum are in supportive and collaborative environments and feel that they have more say in the process. Their perceived ownership of the curriculum empowers them to try new things and modify instruction based on the needs of the learner and the classroom. Wheatley (1994) refers to this dynamic approach as *self-reference.* Human brains are not machines. We can be challenged to new levels of thinking, obtaining *flow* (Csikszentmihalyi, 1993), when we realize "that our future is not ruled by a purposeful providence, but to a large extent is in our hands" (p. 13). When teachers recognize that they have the ability to move from "curriculum as planned to curriculum as lived" (Aoki, 1986/1991), many of the perceived obstacles are transcended. A supportive

learning community encourages self-reference and growth in this area. As Wheatley (1994) reflects,

> Perhaps self-reference is the best tool for leaving behind the clock like work of Newton. We can use self-reference to sort out the living from the dead—giving us the means to identify the open systems that thrive on autonomous iterations from the truly mechanistic things that organizations do best at equilibrium. (p. 147)

The idea of a clock-like world, focused on an unknown destination, emerged as the third theme in the system life writing, as seen below.

The question of Time and Rapid Pace

The feeling of a lack of time due to overscheduled timetables, paperwork, class sizes and other demands was a reoccurring motif in this life writing. Friesen & Jardine (2009) researched how efforts to improve schooling can actually make things worse. They explain that "Schools seem to be continually accelerating, continually differentiating and multiplying the tasks that are asked of them while at the same time attempting to keep in place the structures and practices that were responsive and responsible ventures over one hundred years ago" (p. 5). Based on the research data this problem still persists in 2015, perhaps to an increased magnitude, and the research participants are attempting to *slow down and pay attention* in an environment that is pushing them to rush ahead.

Pat R's time. "The best way to see how mindfulness works in the classroom is how teachers survive. The way we are able to sit quietly at our desk and plough through the piles of papers without letting on how tired we are. Mindfulness is being able to just vent from time to

time and then settle back down to the task. Doing what we love, changing lives and hopefully inspiring some students along the way. At the end of the day, I'm where I'm supposed to be."

Jenn D's time. "I do not have the time to show them who I am and how deeply I care. I physically cannot support them all, and I can't seem to decide who needs my help and attention. So instead I fail them all. We have 40 days of school left and I have kids somersaulting in the hallways, walking away when I try and form a connection, walking away from me and making me feel so very small. My heart is breaking and I am so tired. Right now I feel like no matter how much I give it is just not enough."

Cole's time. Cole sees the system as a direct threat to her ability to make time for her students. She responds in poetic verse about how she wants to claim back the time she needs to be mindfully present for her students.

How can I be a wrench in their works?
How can I do more than merely jam them up?
How do I make them the appendix to my thesis?

If I ignore them, just turn my back,
The jewels will be snatched.
I will be none the wiser,
And I might as well shine the gems
With my own spitless spit

Hsteach's time. "Hsteach does not feel the pressure of time in his setting and he credits this to his working environment. He says, "our school runs in a community structure which has allowed me to be connected with professionals from all subject areas. I believe this structure helps the students to feel connected and engaged within the school, but also helps create a support group for teachers outside their discipline areas. As a professional I feel both trusted and supported."

Byron's time. "The systemic pressures are intense in day to day life for teachers in Alberta. From a feeling that student failure is unacceptable, to IPPs, to simply remaining up to date with 40 students is an immense pressure on teachers. I find myself more worried about the students than myself. My mentality is one of "I've weathered worse storms" but it does still impact a teacher's moral and motivation to do their best. Systemic pressures have an indirect effect on students through the form of worrying teachers, ultimately passing on that energy to the students with whom they share the space."

Tasha's time. "I find it difficult to connect with all my students and due to the short time frame there is a lot of curriculum that needs to be delivered and received. Due to the fast paced nature of our school system, students are not given many opportunities to reflect and examine their emotions and experience. If students were given these opportunities then it may be possible to create a society that is more thoughtful and empathetic."

Lynn Green's time. "I spend a lot of time working with paperwork and tend to lack time to work with students. On the flip side, if I'm in the classroom all day, my day goes by quickly but I know that I have papers on my desk that I need to deal with and would enjoy some time to complete it."

Nan Austin's time. Nan does not feel the impact of time to be as significant, due to the direct instruction model. She believes the singular focus allows her to go deeper into her work without needing to explore alternative modes of delivery.

Summary of the Question of Time and Rapid Pace

Large class loads, teaching schedules and paper work impact the amount of time that a teacher has. However, those working in supportive learning communities do not seem to feel the impact of this obstacle as much. Hsteach, reflects, "Whenever I come up with an idea it is met

with professional conversation and advice all the way around to make the idea even better." The data show that many hands make the workload feel lighter, which shows that our perception of the work influences our perception of time. Accepting the reality of our situation and looking at life mindfully changes the perceived impact of this obstacle. Mindfulness can allow us to reflect authentically on time and how it is being spent, which in turn affects our stress level and our ability to more honestly assess our teaching abilities. As educators, we need to spend time considering the concept of time and what it means for teaching and learning.

Push/Pull Between the Classroom Level, School Level, District and Provincial Level

The final theme that emerged was the relationship between the different levels of our educational system. There is a view of *us versus them* in most cases, and an impression of the system being in opposition to the teachers. This perceived antagonism has formed as a result of education cuts and a lack of teacher voice, causing teachers to feel disempowered. Yet, some teachers within the same system feel that they *do* have a voice in the process, which has rendered their work more valuable. The research participants reflected on their classrooms, their role within their classrooms, and the obstacles they have faced, are facing, or have overcome.

Pat R's tension. "To my surprise on the first day of school I found no supplies for my students, let alone teachers. I ended up spending a lot of my own money to supply the room. I did not mind doing it as I wanted my students to have what they needed, but shouldn't we work in a system where supplies are available? This year I have finally been given money to spend on my K & E students. I find it interesting that they are the ones that bring in the money yet their budget is on $500. How are you supposed to support 156 separate needs with that little of a

budget? After the success of my community building with students last year they gave me $3,700 to work with. I am spending every penny of it to support these kids. We have lunches before long weekends to help bring them together as a community and celebrate their success in learning. I also always have a good food supply in my room for students who don't have lunch or need dinner. It is nice to see when the system works…but really how many times can it fail us?"

Jenn D' tension. "My job is impossible. I am letting them down but I cannot force them to care. I cannot make them learn. I cannot spend my time forcing them to sit down and be quiet long enough so I can try to teach them something. The ones who interrupt are the ones who feel they cannot be successful…who are wounded in some way. Who need help more than anyone else so I do not want to kick them out. I want to be able to work with my kids and know their stories but I just don't know how and there is no support. We send them home because we cannot deal with their behaviour yet it is clear that home is the reason they are so problematic at school. I am so frustrated."

Cole's tension. Cole feels an *us versus them* tension in her interactions with the system:

They insist that they are on our side,
They demand us to give them the things we truly want to,
But they reject our offer
As if it is a cultural misstep,
Like handing it over with the wrong hand

Yet she recognizes the need for her own mindfulness to overcome the obstacles presented to her:

I can adjust my sails
To their gale-force winds,
Lean into the small, pithy waves,
And prep my oars for overbearing crest.

I can remember that they are like me.

That they too have no clue.
I can delight in the tiny moments
When they back my back.

I can breathe, and rise and prove
My gems are better left alone
For generations to revere.

Hsteach's tension. "I believe the system plays a major role in the fostering of mindfulness in the classroom and in my teaching practice. I think one of the biggest impacts on my teaching has been the support I have felt from both an administrative level and from my fellow staff members."

Byron's tension. "Dear MLA. It has come to my attention that your respect for the institution of education has slowly eroded to the point of leaving nothing but a barren wasteland. The cancellation of many programs where enrolment is capped due to safety or resources means the end of many valuable programs such as food, construction, fabrication, culinary arts, drum line, musical theatre and other high school electives. Despite these issues, as an educator, I will continue to persevere because that is what teachers do."

Tasha's tension. "In an ideal situation, there would not be so strict timelines and curricular outcomes, so that students can authentically work in an environment that is more conducive to mindful thinking."

Lynn Green's tension. "At the beginning of the year we had behavioural issues with our grade 9 students, which was disruptive to staff and other students. Extreme behaviour occurred the previous year with the same group, which included a riot and teachers feeling unsafe in the hallways. After our principal candidly told the district we were in crisis mode the cavalry moved in. We had meetings with district personal and administration and also with the district and the whole staff. They came in and told us to hold nothing back, to be open and

honest, and when we were the district listened to us. This was one example of the district showing complete support and the district policies working to find solutions to a crisis.

Nan Austin's tensions. I find it easier to roll with the decisions and adapt myself—to a point of course. I am fortunate to teach with my organization. Policy and procedure are communicated clearly and expectation of teachers are high. Every stakeholder has a voice when there are important decisions to be made and it is easy to feel satisfied with these policies when I know that I have been heard in the creation of them.

Summary of the Theme of Push/Pull Between the Classroom Level, School Level, District and Provincial Level

It is evident from the data that schools comprised of staff members who exhibit an understanding of organizational learning and effective leadership do not experience as much tension between the systems. On the other hand, in schools where teachers feel isolated, powerless and unable to impact change, obstacles can seem insurmountable. A clear understanding of systems complexities is required if teachers are to mindfully navigate the complex environment they may be faced with. An understanding of mindful reflection is a critical skill component for our educational leaders, and should be a requirement for leadership positions. The ability of the teacher to be mindful and stay present in their classroom context is also critical. If teachers become too engaged in the work of the system, without maintaining awareness of the whole, they lose touch with the present work of the classroom context.

Summary of Key Themes Presented in Life Writing 3

The key themes that emerged in this life writing included reflections on the changing educational paradigm as we move away from the factory model to other ways of teaching, the perceived expectation of curriculum demands, the rapid time and pace of the school day, and the

tension between the classroom and the system itself. As the research participants completed this piece, most came to an understanding of their own role in the system and the need to take action. Those working in a collaborative community felt that their desire for change would be supported, while those working in isolation felt disempowered. This speaks to the power of learning communities to navigate the change process in complex systems. It is evident there are still challenges as education continues to evolve, but we must face these challenges together. Wheatley (2002) remind us that, in systems, "relationships are all there is. Everything in the Universe exists only because it is in relationship to everything else. Nothing exists in isolation. We have to stop pretending that we are individuals who can go it alone" (p. 19). We, as teachers, become hopeful when we work together to make change. The following chart is a summary of the four major themes present in the lower right quadrant combined with the data of the upper left and right quadrant.

Table 20. Summary of the themes into the Lower Right Quadrant of the Integral Model

Upper left – Interior Individual - Subjective	**Upper right – Exterior Individual - Objective**
Mindfulness and Self (I)	**Mindfulness and Science (It)**
How do you personally define mindfulness based on your story?	*How do you use mindfulness in your classroom context? What does it mean to professional practice and teaching?*
-Personality traits -Life experiences -Mental Health -Mindful strategies	-Understanding the need to breathe and calm down -Focusing on the individual learner and their specific needs -Curriculum as lived experience

	-Being a teacher of the heart
	Lower Right – Exterior Collective - Interobjective **Mindfulness and Systems (Its)** *What role does current systems directions and policies play in determining your day to day activities?* -Factory model system/changing educational paradigms -Curriculum and content demands -Time and rapid pace -Push/pull between school level and district/provincial level.

Life Writing 4: Using Storytelling for Learning Community and Professional Development – Analysing the Themes in the Lower Left (LL) Quadrant

It was difficult for the research participants to find time for this final piece, but the data that did emerge from this process was deep and reflective (see the Summary Table in the Appendix). This speaks to the need to build reflective time into the teaching day, a time to consider, to contemplate, and to wonder. Wheatley (2002) reflects poetically on this need to breathe, with regard to understanding complex systems.

We never know who we are

(this is strange, isn't it?)

Or what vows we made

Or who we knew

Or what we hoped for

Or where we were

(p. 39)

In the final life writing exercise, the participants analysed the role that storytelling has played in their lives during the past five months. The benefits to sharing knowledge was a reoccurring motif, as well as the teachers' enhanced understanding of their own personal stories and the roles that those stories play in their personal and professional lives. The participants also explored the importance of self care and the need for reflection in their practice and in their personal lives, which allows one to "open up free spaces for thinking, for knowledge, for coming to know the world, around the real events of our lives and their possibilities" (Jardine, 2012, p. 7). Their willingness to come to know the world was reflected in their recognition of the value of sharing experiences and understanding the stories of others. The research participants viewed the process of life writing as a contemplative practice allowing one to see the world such as it is. Smith (1999) reflects on this awareness with regard to *Upcara*, stating, "once one's inner peace has been found one must embark on the difficult new journey of investigating one's 'outer activity', piecing its illusions and repudiating its claims when necessary" (p. 4). The ability to progress mindfully through the stages of the journey is a critical component of teacher professional development and learning. It is a powerful process for sharing learning, understanding experiences, and reflecting on obstacles and victories.

Sharing Knowledge

Pat R's learning. "Story telling is one of our oldest forms of communication. Keeping this forum active for teachers might help and encourage us to log our experiences as well."

Jenn D's learning. "I want to be able to work with my kids, help them learn and know their stories. Their stories are so important in understanding who they are, in finding a way to reach them."

Cole's learning. "How timely! This week I will be sharing Rudyard Kipling's classic poem "If—" with my students, most of whom will probably never receive fatherly letters of advice. It is a powerful example of storytelling and the importance of imparting knowledge from one to another. In it, it also tells Rudyard's story, though one must read between the lines and feed the story to gather the true richness of the poem."

Hsteach's learning. "Through the process of storytelling we were able to share and develop ideas to help us grow. I think it is something that I almost did not realize had such a significant impact on my teaching and development until I look back and see all the different pieces that I have adapted from teachers across all subject areas."

Byron's learning. "Language fails us daily. It fails to transmit the way in which we truly feel and the ideas that we want to express. Jacques Derrida speaks to the ideas by stating that there is a certain amount of play in language and that it is through a mutual understanding that speakers can only have an indirect account of another's experience that they come to understand one another. But understanding is just that—an understanding not a true comprehension. With that said, here is where storytelling is different than just telling. Storytelling is an experience and not just language."

Tasha's learning. "We all learn by telling stories. The notion is not new, as storytelling has been a learning tool since the caveman. It is a way to heed warnings and to bestow knowledge upon others."

Lynn Green's learning. "Storytelling is an ancient way of passing along information, especially in First Nations communities."

Nan Austin's learning. "I can only imagine how difficult it is to stand up in front of a group of teachers and teach us something. And yet a "stand and deliver" method seems to be the norm for every professional development session. I am not ashamed to admit that I have fallen asleep twice in PD sessions and, more often than not, spend my time marking."

Teachers' understanding of their own personal stories and the roles that they play

Pat R's understanding. "As much as I journal on my own, I think it would be helpful in the future to write specifically about school. Focusing my writing might help me cope with the hustle and bustle of school life and possibly work through some of the stress."

Jenn D's understanding. "Story sharing can help us understand the stories we tell about ourselves. It can help us analyze our own journey to teaching."

Cole's understanding. "I think it is essential for teachers to note their own plot points in their teaching journey, to spread the idea of life writing/biography to their students. What a unique opportunity to have—to influence each other and their students, to breed a new generation of storytellers. As I reflect on my own journey, and why I am a teacher at this particular place and time, I am struck by the reoccurring instances of heartbreak that come into my story. The metaphysics say it represents an inability to go with life's flow and I'm beginning to think that they are on to something. Clearly, I should return to my own story, dammit. Stop preaching, stop teaching, and start writing. And then share it."

Hsteach's understanding. "I have found that by talking to others and sharing our ideas, our experiences and our stories, it has really furthered our programs. Often times I will hear of something that another teacher had done, and will find a way to adapt it to my own classroom.

Through this process we will bounce ideas and stories off each other—of what worked, what did not work, and what can improve."

Byron's understanding. "The experience of storytelling and listening speaks to those without a similar situation through the same process—by creating the shared experience, while also reinforcing the feelings of those with similar experiences as those in the story. Overall, storytelling no matter what its form can be an effective modality for professional development due to its ability to form and create both shared experiences and empathy."

Tasha's understanding. "Using storytelling in a professional environment is essential to building community and for teachers to learn the profession from one another. It also allows for those moments of venting, which is essential to maintain sanity."

Lynn Green's understanding. "I know in my school we often informally come together at the end of the day and share stories from our day, whether funny or aggravating. I don't know if this is necessarily a time for learning but a chance to vent, to be reassured, or to warn fellow teachers of what they might see coming the following day."

Nan Austin's understanding. "The more we connect, the less alone we feel. Perhaps storytelling will become the backbone of teacher retention: stories that tell us we are not alone, that we can persevere, that our students are less dependent on us than we think, that things may be difficult now but that it will be worth it in the end."

Reflections and Self care

Pat R's reflections. "I believe that by having the chance to really reflect on how the last two years has affected me has been in a way therapeutic. It has also helped me to see that, although I thought I was giving myself time and space, sometimes I need to slow down just a bit more."

Jenn D's reflections. "My heart is breaking and I am so tired. I really don't know what to do."

Cole's reflections. "I think the value of storytelling in the teaching profession is to remind teachers that they should not sacrifice or ignore their own lives/stories in favor of the system's or the children's. So much of our lives are spent guiding others, and there is a real dearth of acceptance and support of our own needs. We want teachers to be sages, and true sages document their journey in one form or another."

Hsteach's reflections. "At times it seems as though something I am doing is not working, because it is difficult at times to see the long term effects. This requires space for reflection. Through my own reflection and exploring with fellow professionals it helps me grow a better understanding of what works, and what can be changed in the future."

Byron's reflections. "Simple language that dictates how and why to do a certain thing when a certain other thing happens falls mercy to the fallibility of language and telling. An individual can be told how to feel, how to respond, or how to handle certain situations and stress, but that is all that can happen—being told. When a story and anecdote is used, the audience immediately experiences a shared memory which works to form a sense of empathy for whatever issue is being presented. Memory and emotions are tightly connected, so there is a higher chance of remembering the facts and/or ideas. Additionally, a shared experience gives way to empathy and ultimately a catharsis."

Tashas's reflections. "Storytelling allows for moments of venting to maintain sanity. By venting, teachers can express their feelings in a safe environment among other teachers. Also, one can have the opportunity to reflect upon their "emotional purge" and find ways to improve upon the issue."

Lynn Green's reflections. "In some ways, storytelling is quite selfish. We all know that people love to hear their own voices and don't really have a lot of substance to add. It is a multiple person activity but focuses on only one."

Nan Austin's reflections. "So we should be using our purposeful story to connect, to share, and to teach. But the question is how? How do we do this without sacrificing clarity? To be honest, I don't have an answer for this."

Shared experiences and the understanding of the stories of others

Pat R's experiences. "Life writing would offer the most honest view of how a community or school is working. If people are writing about confusion or frustration, then something needs to be fixed. Life writing offers a more personal standpoint than a survey or a textbook."

Jenn D's experiences. "Storytelling helps us decipher our stories and the stories we tell ourselves about others."

Cole's experiences. "Rumi has been an enduring teacher for millions, because he took care to write down his own story, to share his vulnerabilities and wonderings. This could help support teachers—instead of the current gig which feels entirely unsupportive. It is not as if one cannot say "this is a tough gig" without accusations that they are not meant for it. Similar to parenthood, teachers are expected to obfuscate themselves, to remove the ways their character influences the story of their work. No wonder there is such a high rate of burnout in the profession. If teachers were able to express themselves, their joys and sorrows, with each other, perhaps they would not feel so isolated; they might see themselves as part of a community, a larger story."

Hsteach's reflections. "Making time for critical reflection and storytelling has been an important part of my growth in my first few years of teaching. It helps me critically reflect upon my work in a positive manner with the support of my fellow professionals, and from what I have seen has really established a strong sense of community amongst the staff. Even with the students I have noticed changes. Students are now starting to go straight to self-reflection to gain an understanding of the process."

Byron's reflections. "As teachers, we fail to impress information, skills and knowledge on students due to the fallibility of the language that we so blindly trust. When we tell, we are at the mercy of language. On the other hand, storytelling is an experience and not simply language. When a story is told, regardless of language, the audience goes through a variety of emotions and experiences together. It is this shared experience that becomes more important than understanding and communication. It is true that we all experience similar events differently, and recall different and sometimes conflicting details, but it is the emotions that connect us together, whether it be fear or sadness or joy and excitement. These emotions lead to a shared empathy and an emotional response."

Tasha's reflections. "Using storytelling in a professional learning environment is essential in building community and the teachers learn the profession from one another."

Lynn Green's reflections. "Maybe storytelling could be used at a PD day where we had more time to devote to thoroughly hearing one another."

Nan Austin's reflections. "I do notice that I'm more engaged though purposeful story than I am though information sharing. I think that is the nature of humans; we are a storytelling culture. But the word purposeful is incredibly important: seminars and professional learning

experiences that include stories for the sake of warming up the audience is just as bad as story-less seminars."

Table 21. Summary of the life writing themes into the Lower Left Quadrant and completing the Integral framework analysis

Upper left – Interior Individual – Subjective **Mindfulness and Self (I)** *How do you personally define mindfulness based on your story?* -Personality traits -Life experiences -Mental Health -Mindful strategies	**Upper right – Exterior Individual – Objective** **Mindfulness and Science (It)** *How do you use mindfulness in your classroom context? What does it mean to professional practice and teaching?* -Understanding the need to breathe and calm down -Focusing on the individual learner and their specific needs -Curriculum as lived experience -Being a teacher of the heart
Lower left- Exterior Individual Collective **Mindfulness and Storytelling (We)** *Can storytelling be used to build a common vision in a learning community and to*	**Lower Right – Exterior Collective – Interobjective** **Mindfulness and Systems (Its)**

facilitate teacher professional development and learning? -Sharing knowledge and wisdom -Teachers' understanding of their own personal stories and the roles that they play -Reflection and self care -Shared experience and the understanding of the stories of Others.	*What roles do current systems directions and policies play in determining your day to day activities?* -Factory model system/changing educational paradigms -Curriculum and content demands -Time and rapid pace -Push/pull between school level and district/provincial level.

Analysis of Themes from the Final Focus Group Questions

The final research component asked the participants to reflect on the life writing process with regard to its relevancy to their personal and professional development. The following four themes emerged.

Teacher Self Understanding

The participants indicated that the life writing process was very beneficial for them in both personal and professional ways. It provided them with a means to explore their own experiences and stories, which allowed them to focus on their ways of being in the world. As Dall'Alba (2009) reflects, "Not only do human beings have a range of possible ways to be, but also our being is an issue for us; it matters to us who we are and who we are becoming" (p. 36). The process of becoming the teacher—in essence, of exploring the process of becoming fully present—is a critical component of teacher lifelong learning. Smith (1999) explains that this process involves exercising the intuitive wisdom that teachers possess, which facilitates "an understanding of how each child brings to the classroom a different life story with its own particular way of proceeding to meet the world. Good teaching depends precisely on the ability

to tune into and embrace that way in order to lead to a fuller maturity" (p. 9). Understanding the interconnected relationships amongst the stories of both the teacher and learner allows for deeper empathy and compassion, and helps build stronger connections between all involved in the process. Life writing allowed the research participants to go inward to their deeper places of knowing and begin to understand who they are. The process brought the participants to what Jardine (2012) describes as "the broad place of becoming human, this human, and becoming aware, in this process, of the radiant and translucent emptiness-interpretability of this world and our lives in it" (p. 18). The participants found a condition of stillness in the sanctuary of the life writing space and the topic of the research question, and experienced "a true facing of oneself and others as sharing in a reality that at its deepest level is something held in common, something that upholds one and all together in a kind of symphony" (Smith, 1999, p. 22).

Stress Reduction and Teacher Wellness

As a result of the life writing process, the participants reported a decrease in their overall stress and anxiety and an increased feeling of wellness. This is reflective of the work of Siegel (2011) on the significance of the internal work of mindfulness practice and journal writing:

> Writing in a journal activates the narrator function of our minds. Studies have suggested that simply writing down our account of a challenging experience can lower the physiological reactivity and increase our sense of well-being, even if we never show what we have written to someone else. (p. 187)

Life writing allowed the participants to be curious, open and accepting of what emerged on the page. It also allowed a type of understanding of their personal limits. During the initial interview, many of the research participants identified themselves as perfectionists and overachievers prone to stress and anxiety, which tended to result in mental and physical

challenges when contingencies arose. Siegel (2011) provides a learning science perspective on the negative response to unexpected outcomes: the anterior cingulated cortex (ACC), which alerts us when we make a mistake, "connects emotion and body functions, so that anxiety effects our heart and intestines, giving us an internal sense of dread, which in turn motivates us to find the mistake and correct it" (p. 249). Through the process of reflecting mindfully during the research, the participants were able to notice and identify their feelings of not being good enough. They were beginning learn how to focus on the present moment and reflect on the situation and the circumstances that were present. The participants also came to realize that mindfulness is a life-long practice that requires time, commitment and motivation. The ability to let go of complete control and responsibility is crucial for success in the teaching practice and for holistic wellness. Embracing this reflective process on personal and professional experiences allowed the participants to reach an epiphany within the mindful writing experience. As Siegel (2011) states,

> experience teaches us the limits of our control. Even with our best efforts accidents happen. Life is unpredictable. Temporal integration requires that we let go of illusions of certainty so that we do what we can to be safe but then release our minds from irrational striving for omniscience and omnipotence. (p. 251)

By exploring the research question and engaging in mindful life writing, the research participants were able to decrease their stress levels and improve their overall holistic wellness. This experience yielded "writing that pays attention to the body, always full of energy and determination to get to the heart of the matter" (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012, p. xxiii).

Creation of Community and Potential for Professional Learning Communities

The findings demonstrate the potential of using life writing to build professional learning communities. The participants expressed an interest and desire to explore this process in more depth as an authentic means of addressing the complex problems currently faced in today's educational context. The need for teachers to work collaboratively in a community is crucial, given the increasing demands of the work and a growing understanding of changes within our educational paradigm. We need to be able to work together if we are to move away from the factory model toward a more holistically integrated approach to curriculum. As Wheatley (2002) reflects, collaboration in learning organizations and communities "is how we can restore hope to the future. It is time for us to notice what is going on, to think about this together and to make choices about how we will act. We can start by talking about what is going on—in our own world, in the greater world" (p. 66). Because all the research participants were in different locations and the d2l platform did not inspire the type of interaction hoped for in this research study, the goal of establishing an interactive professional learning community was not achieved during the research process. However, it is hoped that with continued work in the area this goal will be attained. This possibility will be addressed further in Chapter 6 with regard to limitations in the research and future research.

Teacher Personal Engagement in Understanding the Work of the System.

The medium of life writing, giving each participant a voice, was very effective in engaging the participants with the research question. Often teachers feel they do not have voice with which to speak about their schools, the curriculum and the system. Feeling disempowered, they can become apathetic and less engaged in the business of teaching in learning. It is critical that teachers become active stakeholders in our educational process.

During the initial interview many of the participants expressed that they felt a type of calling to do this type of work. Paulo Freire, in his work as a world educator, often referred to this drive as a vocation of becoming fully human. As Wheatley (2002) discusses in her work regarding the role of conversation as hope for our future, Freire's "notion of vocation comes from the spiritual and philosophical traditions. It describes a "call" to work that is given to us that we are meant to do. It helps remind us that there's something more than just me, that we are part of a larger and purpose filled place" (p. 58). We are part of a much larger system and as educators it is crucial that we understand our role in the system. In the journey to understanding, first we must understand ourselves and then we must explore our relationships with others. The research participants who responded to this call to write recognized the value of their insights, not only within their own classrooms, but also within the greater context of a complex system that is currently undergoing significant change. The participants exhibited a willingness to embark on a journey of exploration, which is "the kind of journey that life writing entails, a journey into language and into the world" (Chambers, Hasebe-Ludt, Leggo & Sinner, 2012, p. xxvii.)

Chapter summary

This chapter used the AQAL framework to analyze the themes and patterns that emerged through the initial interview questions and through the four life writing prompts with regard to the research question. The themes and motifs of the final focus group were explored with regard to the literature in the area. Chapter 6 addresses the implications of this research for the future. It begins with a review of the purpose of this research and then examines the role of mindfulness in curriculum and learning in our current and future changing educational paradigm.

Chapter Six: Discussion – Integral mapping of themes and their connections to mindfulness

Introduction

The purpose of this research was to explore the role of mindfulness in curriculum and learning. Of specific interest to the researcher was how the concept of mindfulness could be examined from multiple perspectives via the Integral Model, combining philosophical ideologies with the learning sciences and the work of the education system. The research has combined scholarly work with the ideas and reflections of teachers working in the field in order to develop a working framework for a new approach to teacher professional development and pre-service teacher training. Establishing the foundation of this work involved braiding together different voices - teachers, academics, current system policies - with that of the researcher in order to come to a place of common understanding and meaning. Working together to unify our voices signifies our recognition of the importance of the whole, as studying only the parts of a particular phenomenon does not provide comprehension at the structural level, and all its complex interconnections. To encourage growth we must join in the conversation, to understand our joys

and difficulties. As Wheatley (2002) reminds us, "We need time to sit together, to listen, to worry and dream together. As this age of turmoil tears us apart, we need to reclaim time to be together. Otherwise, we cannot stop the fragmentation" (p. 5). This work is an attempt to weave back together the disconnected pieces of our educational landscape in order to create something vibrant, living and whole. As Leggo (2015) reflects, "everything comes with both cost and benefit, and creating an optimal balance between the two is our constant human challenge. To me, this challenge is at the heart of learning" (p. xi). This work is an exploration of the power of collaborative understanding to bring balance to our educational contexts. It is an effort to bring the art and science of educational research together into a framework in which each voice can be recognized and heard.

This research used Ken Wilber's (2008) *Integral Life Practice* as a model to explore the concept of *Mindful Integral Life Practice for Teachers (MILPT).* A key component of the research was the use of Integral life writing methodology as a means of acquiring data and bringing participants to a place of reflection and contemplation.

As a researcher, I have come to the understanding that this final chapter does not bring this work to a close but simply outlines the parameters and framework through which the research will continue to grow and evolve. With this in mind, this chapter is not so much a closing but a glimpse into what this work may look like in the future as we continue to struggle with the current paradigm, definitions of curriculum and learning, the role of mindfulness in teaching and learning, and the complex process of becoming fully human amidst complex circumstances. I offer no *solutions* regarding the topic, only considerations and possibilities as we work mindfully towards our collective future.

This chapter begins with a summary of the four life writing sections as they relate to the research question, followed by an analysis of the study's findings and the assumptions presented. Next, the implications of this work are considered, for professional development in the field and for pre-service teacher education programs. The limitations to this study are then examined. The chapter ends with a discussion of future research considerations, and the researcher's reflections on the future possibilities that this work has presented.

Connection between mindfulness and personal and professional development (UL)

The participants defined mindfulness clearly and recognized the need for mindfulness in their personal and professional life, but still struggled with implementing mindfulness techniques into their praxis. Hence, in spite of a clear understanding of the significant role mindfulness can play in education, teachers are still stressed about time, pushing on to some unknown destination. For most professionals, reflective time is still viewed as some type of luxury activity only to be enjoyed after the never-ending push of paper work is done.

Many of the participants are already intuitively implementing mindful strategies in their practice, but, for teachers unfamiliar with mindfulness, more institutional work in this direction must be made to reach teachers who can benefit from this training. Without this type of training, teachers fall victim to burnout, which was evident in the research data. In some cases, teachers felt simply too overwhelmed to even consider making space for mindfulness. Yet, the data show that mental health and wellness is positively impacted by mindful praxis, which points to a need for this type of training in the personal and professional development of teaching. This type of self- and system-reflective approach should be a critical component of teacher education. The following found poem summarizes the main themes and images presented in this section of the research.

Creating a space where students can just think
Disconnected from the overstimulated world
Seeking solace, seeking the pathway
From a society lost in technology standardized tests and bureaucracy
Teachers and students lost together trying to find the way

The interconnected complicated lives of teachers and students
Merging together in this space and place that we call a classroom
If we lose the connection a strand is broken somewhere in the web
And a soul spins silently and slowly, forever lost in the Universe

Count the steps from the gym to the door, count your breaths
Write, write, write and spew out the stories of your soul
Take a breath and write a poem or let the poem write you
As the process of mindfulness spins out around you as you become aware
As you become present to the possibilities of what might be beholden
Journal everyday if you can and understand who you are
How you learn and what you can be as you take your space in the world
Curriculum. Plan. Flight. Faith. Friend
Kind. Change. Heart. Grow. Teach

Connection Between Mindfulness and Current Brain Research (UR)

Most of the research participants recognized that there was a link between mindfulness and learning. Those working in high-risk settings used specific strategies to connect with students, while others based their work around methods they had learned in the University context. None of the participants had a formal understanding of the role of mindfulness in teaching and learning, specifically with regard to the learning science. Current research in the neurosciences shows that mindfulness learning has significant implications for neuroplasticity and the development of higher lever thinking, specifically empathy and compassion.

This research is a possible starting point for future work in this area, as current teacher knowledge of the connection between mindfulness and learning science is somewhat limited from a formal theoretical perspective. From an informal position, however, the teacher

participants have involved themselves in mindfulness techniques without formal training, and have seen positive results. Personal accounts of these successes, such as life writing exercises, would allow a perfect starting space for future research, linking the current research and the lived experiences of teachers and learners. It is significant that the teacher participants came to an understanding of the benefits of mindfulness through their own experiences in the classroom. However, a theoretical understanding of the learning sciences and the role of mindfulness needs to be firmly established to allow these parameters to develop to their fullest capacity.

The findings show the participants' understanding of the need to breathe and calm down. As teachers, the participants recognized the need to focus on the individual learner and implement the curriculum as a living, breathing work. They also focused on the idea of being a "teacher of heart," which emphasizes the need for reflection for both the teacher and the student. Future research needs to demonstrate the connections between mindfulness and the learning sciences so that this work can be viewed with proper regard for its relevance.

The following found poem summarizes the main themes and images established regarding mindfulness and current brain research.

Check out at the door of my classroom and just enjoy the space
Connect with your writing, your heart, your story, our space
One to one conversations with each other as we explore the possibilities
Keeping our assumptions in check and trusting the process

Understanding that each classroom, each student, each brain
Is unique
And striving to find its space and place in the world amidst the obstacles
Skills of thinking, of discovering, of knowledge to be beholden by the Seeker
Reflect to fight off the feelings of drowning in a sea of nothingness

Accommodate and modify for what is needed – this will always be in flux
Resiliency and self efficacy are the final frontier
Empathy and compassion for ourselves and each other

Drip, drip, drip drop
What is falling, what is dripping
How are we becoming fully human?

Connection Between Mindfulness and Current System Direction (LR)

The data gathered from the third life writing exercise reveals that there is still a tension between the teacher in the classroom and the overarching system. The perspective of Alberta Learning, through the Inspiring Education policy, is reflective of the holistic approach to education, stating that "an educated Albertan is one who is an Engaged Thinker and Ethical Citizen with an Entrepreneurial Spirit" (Inspiring Education, 2010). The idea of holistic education is also reflected in the visions of school board leaders who seek to discover individual gifts and talents of each unique learner. Hancock (2010), in his role of Minister of Education, stated that education "is about children realizing their potential and achieving their hopes, their dreams and aspirations. It is about each student belonging in a caring and inclusive network of educators who support them" (Inspiring Education, 2010, foreword).

The research participants recognized the challenges set out by Alberta Education's vision, and struggled with them. Their stories speak of fighting for time and space with their students, as well as free space in curriculum and design where "student engagement in learning could be achieved by building relationships within and among multi-disciplinary teams to ensure holistic approach to student success" (Inspiring Education, 2010, p. 14). Meditative consciousness is the outcome of mindful teaching and is required for performing well within complex systems. If teachers form an understanding of these systems and how the complexities impact the work of the classroom, their response to the system will determine the eventual outcome of change.

The following found poem summarizes the main themes and images regarding the impact of current systems directions and policy on day-to-day teaching activities.

I have 100 forms to fill out and they are threatening to consume me
There are no supplies, no budget and no support
I feel like I cannot breathe and dream of my theoretical classroom
And contemplate carefully how I will survive

Their bloodlust is insatiable
With our hands in chains
I can adjust my sails to their gale force winds
I can breathe, and rise and prove that change is indeed possible
I can believe in the dream of the future

I can connect with others who share my vision
Collaborate, cooperate, create
Inspire, innovate and inhale
The beautiful energy of change is evident in the air
I am not alone, and my ideas do matter
When I speak, people will listen

And although it might appear that the system is eroding slowly into empty nothingness
It is simply changing from what it was, what it has always been
Into something new, something different, something that should not be feared
But passionately embraced as an evolution into a new space and place
Such as the butterfly who emerges from the dark web of the cocoon
Experiences the complete metamorphosis of change
And spreads its wings to the sky to take flight into a new reality

Overscheduled timetables, large classes, mounds of paper work
I defy you all and refuse to rush to the rapid ticking of the clock demanding my compliance
I will hope for the future and try to bring mindfulness into my consciousness
As I struggle with the push and pull of significant change that threatens to break me
The sheer volume is overwhelming and threatens to consume all the space
It will suffocate me if I face it alone but I do have a voice that I can choose to share

Every teacher, every student, every fibre in the web has a voice
We need to speak together and reflect mindfully

Oh brave new world that has such people in it
What will be the direction of our collective evolution?
How will our voices join together in story and celebration?
To unite the fraying strands of the interconnected web of life
And bring us into a collective harmony where the horizons meet
And the system breathes as One.

Connection Between Mindfulness and Storytelling (LL)

The final life writing moved away from stories and poems. The data showed a return to a more traditional response, perhaps due to the pressures of the end of the year and the lack of reflective space. This will be further addressed with regards to limitations to this study. The participants reflected on the importance of the earlier life writing experiences in terms of professional growth and development. Future research will focus more on the how storytelling is used, with specific reference to Life writing, asking them to refer to the stories of their lives.

The findings indicate that storytelling can be used as a type of contemplative inquiry allowing teachers into a reflective, mindful space. It is a valuable research methodology, encouraging participants to address what is actually occurring in their lives and what factors are impacting their engagement with the world. It provides a more authentic voice than a survey or questionnaire, letting the research participants look at the stories of their own lives and how those stories have impacted them personally and professionally. The use of storytelling has deep historical roots, and needs to be reconsidered as a means of encouraging professional development and learning. It creates a dialogue concerning the quality of our lived experiences as teachers in our current educational context, which might be characterized as filled with anxiety, stress and traumas as well as joy, beauty and rebirth. The process of story sharing allows us to recognize all the components of the stories of life. Life writing can be used as a process of empathetic inquiry and, as referenced in current brain research, emotional response is

a critical part of learning for both teachers and students. The stories of our lives, and the emotional impact of those stories, play a critical role in how we learn and grow. As Siegel (2010) states, "the heart is indeed a wise source of knowing" (p. 167). The self-reflection of life writing can lead us to "the kind of knowing we wanted to honour: one that comes from the body, the heart and the imagination, from having our feet planted in the humus of day-today lived experience. (Chambers Hasebe-Ludt, Leggo & Sinner, 2012, p. xxiv). Life writing allows a portal to the deep realm of *teacher knowing*, as teachers go inward in search of self-understanding, which then allows for the Awakening required to understand the Other, and our place in the interconnected communities of life.

The following found poem summarizes the main themes and images that emerged regarding mindfulness and storytelling.

Rudyard Kipling offered fatherly advice
But one needs to read carefully between the lines
The perception of one's individual story
Is not the only perception that one will find

Reflections on the journey can be a rough and bumpy ride
But only if we dare to broach the path can we discover what is hidden deep inside
Clearly I should return to my own story, dammit
Stop preaching, stop teaching, start writing start sharing,
Start learning and connecting to the stories swirling around me

Stop the feelings of isolation that build within the confines of the classroom walls
Open the doors to conversations and breed a new generation of teachers
Who understand the power of their own stories, their own ways of knowing
Their own ways of walking in the world and connecting with others
Who are then capable of teaching this reflective process to their unique and individual charges
So we can all come to a mindful place we need to find in the here and the now

Reflect upon my story, with my colleagues, in a collaborative and open community
And I can begin to see the changes although I did not even recognize that they were happening
Simple language fails us and we cannot come to an understanding of one another

Storytelling is an experience and not just a language that seeks to understand
It speaks to those without a similar situation through the same process

Creating a shared experience and a portal for knowing, learning and being
That is not accessible through a survey or textbook but only heard through a voice
Shared experience and empathy build the bridge
Towards a common understanding of curriculum and learning
Forged through the thrusting waters of the emotional purge of our stories
As the patterns of the voices swirl, embrace and merge into patterns of life

How Well do the Findings of this Study Address the Research Problem and its Related Assumptions?

This study examined a specific research problem: what is the role of mindfulness in curriculum and learning? Contained within this question are auxiliary assumptions, which were addressed in the research process and the analysis and interpretation of the data.

1. Authentic learning requires critical reflection.
2. Reflection and mindfulness are processes that require time.
3. Teachers acquire mindfulness over time if they are aware and motivated.
4. Mindfulness is required to come to higher understandings and deeper learning.
5. Storytelling is a way to make sense of how mindfulness is used in learning.
6. Current brain research supports the use of storytelling to increase the development of neural pathways in the brain.
7. Storytelling and language is a traditional way to transmit culture and wisdom from one generation to the next.
8. Storytelling can build community.
9. Storytelling can be used as a research methodology for a professional learning community.
10. Storytelling can be used as a research methodology to explore mindfulness, curriculum and learning

The intent of this research was to explore the role of mindfulness in our current educational context. Through the life writing process and ongoing engagement with the research participants, mindfulness has been shown to play a critical role. There is further work to be done in this area, specifically with regards to professional development and classroom application. Based on the evidence acquired through both the literature review and the research process, the findings of this research suggest a framework for future work in this area. Below is a chart summarizing the key research findings into the AQAL theoretical framework.

Table 22. Mapping the research findings onto the AQAL quadrants

Upper left – Interior Individual - Subjective Mindfulness and Self (I)	***Upper right – Exterior Individual - Objective Mindfulness and Science (It)***
The inner explorations of being an educator 1a. The research participants expressed an understanding and a strong appreciation of mindfulness. Additionally, they understood the need for reflection. 1b. Mindfulness is implemented into personal and professional practice in a variety of ways such as breathing exercises, journaling, running and other physical activities, and by simply finding the time and space to be present and pay attention 1c. Teachers understand mindfulness in the classroom context as the skill of being present and paying attention to the needs of each individual learner. They also understand it as slowing down and taking time to breathe. 1d. Teachers use mindfulness in their teaching as a coping strategy to deal with the increasing stress and anxiety that they experience in their classrooms. They also use it as a way to understand curriculum and reflect upon how that curriculum lives in the real world. They use it both as a personal tool to support their own wellness and as a pedagogical tool to support the needs of the learners in their classrooms.	*Learning sciences and contemplative neurosciences* 2a. Teachers interpret the curriculum mindfully by trying to determine how it lives in the real world and how it is relevant in their individual classroom context. They question why they are doing things the way they are, and whether their methods will meet the broader learning outcome of preparing their students to function in the world. They allow for multiple access points in terms of instructional design, assessment and development. They approach curriculum not as an absolute but something to be used as a guideline depending on their particular context. 2b. There is consideration of mindfulness with regards to lesson design. Many are embedding reflective practices within their assessments and allowing for open space in the implementation stage of learning outcomes. There are conditions being created to allow the students a reflective space so they can consider and contemplate their learning. 2c. Teachers have a limited understanding of the cognitive and physical impact of mindfulness in teaching and learning. They are observing in their classrooms that, when mindfulness is incorporated into the curriculum, it has a noticeable effect on the wellbeing of students and teachers,. However, teachers are not aware of the cognitive and physical impact with regards to the learning sciences.
Lower Left – Interior Collective – Intersubjective ***Mindfulness and Storytelling (We)***	***Lower Right – Exterior Collective – Interobjective*** ***Mindfulness and Systems (*Its)**

Exploration of the common themes emerging from the life writing process	*Current system and provincial direction regarding the present context of our educational landscape*
3a. Life writing can be used as a tool to identify common themes of experience. The identification of these common themes then can provide a benchmark for building a common vision. This research did not succeed in actualizing a future vision, but did establish that such is possible using the life writing format. 3b. Storytelling was used effectively as a tool for understanding the role of mindfulness in curriculum and learning. It provided a reflective methodology that was suitable to the context of the research question. 3c. Life writing can be utilized in professional development to empower teachers to recognize and learn from their own voices. It is a reflective process that asks teachers to go inward, to examine their own stories, to first understand themselves and their perceptions. It provides the foundation for story sharing, which allows teachers to work together in a reflective fashion, exploring the interconnected stories of our educational landscapes.	4a. There is an alignment between the tenets of mindfulness and the key philosophies of Inspiring Education. Both focus on the needs of the individual learner and the relevancy of curriculum, with the goal of creating engaged, ethical and entrepreneurial citizens who know who they are. 4b. Mindfulness is directly connected with personalized student learning, as a mindful teacher knows what each particular student needs in any given context. Due to their ability to be present and pay attention, mindful teachers apply curriculum based on the individual learning needs of the student and are able to accommodate and adjust their methods as needed. 4c. Pre-service teacher training should address mindfulness and reflection directly. in courses dealing with curriculum and learning, including areas such as adult and lifelong learning, as well as the learning sciences courses.

Implications for professional development, work in the field, and pre-service education programs

Based on the research findings, the following framework is proposed to support professional development, work in the field, and pre-service education programs regarding the role of mindfulness in curriculum and learning based on the work of Wilber (2008) and his theoretical framework for *Integral Life Practice.*

Table 23. Mindfulness through Integral Life Practice for Teachers (MILPT).

Upper left – Interior Individual – Subjective	***Upper right –Exterior Individual – Objective***
Mindfulness and Self (I)	***Mindfulness and Science (Its)***
The inner exploration of being an educator	*Learning sciences and contemplative neurosciences*
Key learning competency/understanding	*Key learning competency/understanding*
The ability to participate in the exploration, inquiry and reflection on what is the role of contemplative pedagogy and self-reflection in Education. This involves direct participation in the process, going beyond an academic framework towards a lived experience of the role of mindfulness in curriculum and learning.	Possessing an understanding of the new insights and applications of current discoveries in the learning sciences. Of specific focus in this area is the concept of neuroplasticity and its connection to contemplative neuroscience.
Lower Left –Interior Collective – Intersubjective	***Lower Right –Exterior Collective – Interobjective***
Mindfulness and Storytelling (We)	***Mindfulness and Systems (Its)***
Exploration of the common understandings we all share through the life writing process	*Current system direction with regards to our current educational landscape*
Key learning competency/understanding	*Key learning competency/understanding*
The ability to use Life writing methodology as a tool to find patterns in our stories and systems that connect the most diverse insights and methodologies. By acquiring a "heart of wisdom" (Leggo, Chambers, Hasebe-Ludt & Sinner, 2012), teachers will become agents of change in their own personal educational contexts.	The ability to recognize, understand and reflect upon the interconnections of complex systems and the impact that they have on individuals and groups.

Creating an institutionally recognized framework would require a solid academic grounding of scholarship in the area. The role of mindfulness in curriculum and learning has significant implications for professional development, work in the field, and educational training at both the

undergraduate and graduate levels. This research suggests a framework for the ongoing work on mindfulness in curriculum and learning.

Limitations to this Study and Recommendations for Future Research

As with all journeys, there were obstacles present during the research process, which impacted the findings of the study and the type of data that were gathered. The following limitations were present and will require consideration with regard to future work in this area.

Time

Reflecting on the research topic of mindfulness and engaging in the life writing process chosen to explore the research questions required a significant amount of time due to the contemplative nature of both. This research project suffered the same consequence as many of our schools, as research participants and the researcher felt pushed for time due to conflicting demands of teaching and life. Five months is not a long enough time to engage in a study of this depth, but there are time limits to doctoral studies. Future work in this area will allow for a much longer time frame built into the research design, with specific time spent reflecting, conversing and meeting face to face with participants. The whole process must be much slower and deeper. Although the data presented has been valuable as a benchmark and as a starting point for this research, a great deal more time and reflection is required for this topic to be explored at a level which will significantly impact curriculum and learning. Research participants have all expressed a desire to continue this work but would like to proceed at a slower pace, with more time for contemplation and consideration. This limitation of time illuminates the research problem, as the researcher reflects on the question, "Are we as educators willing to reclaim an open space to breathe, which will allow us to authentically learn and grow?"

Experience Level of the Research Participants

All the research participants were in their second year of professional service. This narrow scope limited the findings of the study, as it did not allow for voices of teachers at different stages of professional development and experience.

Locations of Research Participants

This study was designed to include teachers from the Calgary and surrounding areas. The original intent was to allow a diversity of participants to reflect on curriculum and learning in the province of Alberta. There was only one teacher per building involved in the research. This limited the study, as participants were not able to orally discuss ideas or connect face to face. Finding space and time for a group meeting was impossible due to the diversity of locations and time constraints. Storytelling, originally an oral tradition, often is used in staff rooms informally in schools as an unrecognized tool for professional development. If the participants had been in one location it would have allowed for these casual conversations to occur, which I believe would have enhanced the data and the research. Future work in this area will be based in one specific school, working with staff of various levels and experience. This will allow for more conversations, oral reflections and connections between the research participants. It will also allow the researcher to meet with the group. The research could then be diversified with schools from different Boards, allowing teachers from different schools to compare their processes and "share stories of the journey."

Use of the d2l Platform

The original research plan hoped to use the d2l platform as a space for collaboration and connection. The discussion section was designed for participants to either share their own work or discuss the research project. Only one participant used this forum, so it was not successful as

a platform to create a life writing community. Having the luxury to establish a solid face-to-face relationship between the participants would have greatly enhanced this work. There needs to be a climate of trust established within the participants if they are to share amongst themselves, and this trust was established only between the researcher and the participants directly. The d2l format could be used in the future as an extension of a collaborative group, but without authentic face-to-face interaction prior to establishing an online learning community, the d21 shell did not render itself an asset but a limitation to the potential of this research project.

Familiarity with the Life Writing Process

Some of the research participants fell naturally into the process of life writing and wrote powerful pieces. Some resorted to more of a question and answer format, which did not reach the depth and authenticity that was hoped for in the research responses. In the future, it would be beneficial to schedule a group session to explore and practice the life writing process, as well as study a text on Life Writing. This was a methodology that the research participants were not familiar with. It required them to go beyond the standard question and answer format to a more reflective place. A deeper understanding of Life writing, perhaps through an undergraduate or graduate course, or a professional development workshop, would greatly enhance the validity of the methodology as a tool of inquiry for ongoing teacher professional development.

Importance of Establishing a Community of Learners

The above limitations impacted the researcher's ability to fully establish a collaborative learning community. On an individual teacher level, much of the work was rich and meaningful, but the final step of connecting the participants together to share stories and ideas was not fully actualized. To fully explore mindfulness, it is essential that a trusting learning community be established. This research has taken the first step of exploring the Self and starting the process.

Future work will require connecting with others to explore the topic and the research question, reaching deeper levels of understanding and meaning.

Exploration of the Full Potential of the Integral Model

As noted earlier in this thesis, the **"**quadrant**"** is the most basic element of the Integral model. As the acronym AQAL implies, the two foundational components of the model are the quadrants and the levels. Beyond this basic infrastructure, it is also important to remember that the elements "lines", "states" and "types" provide additional depth to the model. In order to use the Integral model to its full potential, sufficient time and resources are needed, and this implies the use of research teams. A future extension of this research should begin with the inclusion of "levels", which would enable the researcher to fully describe the perspectives of the participants as well as the contexts in which they operate. Next, every attempt should also be made to include "lines", which would shed further light on the participants' capacities to incorporate mindfulness into their praxis.

Recommendations for Practice

The researcher has identified the following as four key areas of extension on this original work exploring the role of mindfulness in curriculum and learning.

MILPT Integration into Personal and Professional Development

Future work will involve the use of this model in professional development, school based learning, undergraduate and graduate teacher training. Reflection and evaluation will be ongoing with regards to its effectiveness as a tool for facilitating the skills and understanding required of teachers in today's complex educational context.

The need for specific training is evident from this study. It should be noted, that while the participants felt that they understood the concept of mindfulness, further work toward the full

embodiment of the tenets of mindful practice would be required. In addition, the researcher recognizes that the process of learning mindfulness includes obstacles. The facing of these obstacles can be a difficult, even painful, process.

Mindful Teachers Incorporating their Learning into Curriculum Implementation

Once teachers have acquired a state of mindfulness in their personal and professional life the next step will be to incorporate that awareness into the classroom context. Future research will involve working with these mindful teachers in their classrooms to design curriculum and learning opportunities that are realized through mindful teaching. Ongoing reflection and assessment will be critical to determine the effectiveness of this praxis, specifically with regards to learner competencies and holistic development.

Recommendations for Theory Development

Exploring the Connections Between Mindfulness and the Learning Sciences for Both Teachers and Students

Future research will also include the link between mindfulness and the learning sciences, or what the researcher is terming *contemplative neuroscience*. The key focus will be on assessing the effects of mindful praxis on the learning and development of both the teacher and the student with regard to an emotional, social, cognitive and physical lens. This work could be facilitated in conjunction with the Alberta Children's Hospital, specifically with reference to anxiety, ADHD and stress management. The work of Richard Davidson (www.investigatinghealthyminds.org/cihmDr.Davidson.html) will be highly significant to the continued development of this work.

The Link Between Health Care and the Humanities

The link between life writing and wellness will be explored in greater depth. The University of Calgary has established a *Health Care and the Humanities* working group, who state, "humanities scholarship, as applied in a health care setting, often has as its goal the increased empathy and professionalism of learners and practitioners. How to measure this remains the Holy Grail of medical humanities and curriculum development" (www.ucalgary.ca/humanties). Future work will explore the critical link between life writing, mindfulness and health care in interdisciplinary areas.

Summary of Considerations for Research, Theory and Practice

The use of mindfulness in education, and the structural framework of the Integral Model used to develop MILPT for teachers, has the potential to stimulate deep and meaningful work in teacher professional development. This work on facilitating the development of mindful and reflective practitioners can then be expanded into classroom curriculum design with a careful focus on the learning sciences and what we now know about neuroplasticiy. Authentic and meaningful teaching praxis can and will encourage the holistic development of the learner from a social, emotional, cognitive and physical lens. My research and reflection in this area will be ongoing.

Although this work was originally intended as a study for teachers, the application of the concepts of mindfulness and the life writing process can be used across disciplines. My future work will involve collaborative projects with researchers in Medicine and Nursing. The possibilities and potential of this work are vast.

I end this section with a reflection on the words of Smith (1999):

> For teachers in the West, the deepest challenge may be to learn how to reclaim senses of the Self that are not dependant on manufactured images or commercial summoning. Instead, in the face of shrill prescriptions, let deep down reverberations of the soul now emerge pedagogically from a new kind of meditatively centered self-assured autonomy, and let young and old join hands in a hymn of joy that celebrates a space of common interest and free intelligence. (p. 60)

Concluding Remarks: Researcher's Reflections on the Mindfulness and its Possibilities in Education

I have reached the end of this part of the journey, and as with most endings the feeling is bittersweet. I set out to determine the role of mindfulness in curriculum and learning and have only just begun to understand the magnitude and possibilities. However, the portal has been opened, and I now feel the confidence to walk through the door.

I shall close this dissertation with a poem that summarizes this part of my story. As Abram (1996) reflects,

> Stories, like rhymed poems or songs, readily incorporate themselves into our felt experience; the shifts of action echo and resonate our own encounters—in hearing or telling a story we vicariously *live* it, and the travails of its characters embed themselves in our own flesh (p. 120).

This story of the journey to mindfulness has been a deeply embodied one.

A clash of chromosomes or a soul seeking reimmersion into the world
And a life begins to undertake its journey
The first breath is taken, inhaling deeply the promise of the pathways
Amidst twists and turns along a rocky and dangerous route
Lessons are learned along the way and some are bitter

A young girl refusing to color in the lines despite the demands of the teacher
Stamping her feet at the factory assembly line and refusing to take her place
Silently promising to change the way that things are always done just because
And slowly seeking her way to the stars through the darkness of the shadows

A teacher challenged with enlightening the youth who stand before her
Full of confusion, anxiety and lack of understanding of who they are in the world
Guiding the way but never shaping the path and sometimes following behind
Presenting the possibilities for all our tomorrows for each unique explorer
Learning to breathe and breathing to learn

A mother screaming out against a system that still suffocates her young
The very life force out of her small son's soul as he struggles to breathe
The call is now evident for deeper change, for recognition, for renewal
And the moment is now for new understanding to rise on curriculum and learning

Inhale, exhale, inhale exhale, just breathe
Calming the mind, soothing the body, shaping the plotline of the story
The slow and steady pattern of the breath that calms the mind
Bringing the complex labyrinth of the brain to places of higher understanding
As neuropathways form and merge together in the prefrontal cortex
Allowing arrival to spaces and places of higher ways of knowing, learning and being

Step together into my carefully tended classroom garden
My community of unique and individual coloured flowers that all grow from the same Earth
Waiting to burst into life and breathe together the essence of Being
Deeply, slowly, peacefully, yet full of vibrancy and light each blooming in a unique style

Understand the interconnected threads of the complex system
That surrounds you, envelops you but does not contain you
You are part of that System and you impact that System
The sum of the parts will never be greater than the sum of the whole
Your voice will be heard if you speak, allow the story to fall forth
From your soul and claim your space in this world
You are part of the interconnected web of Life

Seek not the shadows, the structure and the stress as it is all an illusion
Face the obstacles, recognize them and move beyond them
Turn your face to the light and recognize the wisdom that lives deep within your body
Your heart of wisdom and passion that opens the portals of perception
The spirit that feeds on the process of poetry, peace, gratitude and grace

Inhale, exhale, be present and pay attention to what is needed now
Return to the people and our shared Earth to help others find the way
Soulfully seeking and sharing the stories of this collective, reflective, mindful journey
That we all undertake as part of this complicated, convoluted, possibly painful process
The journey that is the essence of human life and is required to find our way home.

References

Abram, D. (1996). *The spell of the sensuous.* USA: Vintage Books.

Alberta Education. (1997). Teaching quality standard applicable to the provision of basic education in Alberta. Retrieved from http://education.alberta.ca/media/6734948/teaching%20quality%20standard%20-%20english.pdf

Alberta Education. (2010). *Inspiring education: a dialogue with Albertans.* Retrieved from http://ideas.education.alberta.ca/media/14847/inspiring%20education%20steering%20committee%20report.pdf

Alberta Education. (2012). Achievement testing results: 2012-2013 provincial results. Retrieved from http://education.alberta.ca/admin/testing/achievement-results.aspx

Alberta Teachers' Association. (2012). The new work of teaching: A case study of the worklife of Calgary public teachers. Retrieved from http://www.teachers.ab.ca/SiteCollectionDocuments/ATA/Publications/Research/pd-86-23%20New%20Work%20of%20Teaching%20-%20Calgary.pdf

Association of Canadian Deans of Education. (2005). Principles of initial teacher education. *Accord on initial teacher education.* Retrieved from http://www.csse-scee.ca/acde/accords

Aoki, T. (1986/1991). Teaching as indwelling between two curriculum worlds. In W. Pinar & R. Irwin (Eds.), *Curriculum in a new key: The collected works of Ted T. Aoki*. NY & London: Routledge Taylor and Francis Group. pp. 159-167.

Aoki, T. (1991). Five curriculum memos and a note for the next half-century. In W. Pinar & R. Irwin (Eds.), *Curriculum in a new key: The collected works of Ted T. Aoki*. NY & London: Routledge Taylor and Francis Group. pp. 247-263.

Arias, A. J., Steinberg, K., Banga, A., Trestman, R. L. (2006). Systematic review of the efficacy of meditation techniques as treatments for medical illness. *The Journal of Alternative and Complementary Medicine,* 12(8), pp. 817-832.

Aristotle. (2001). *On the soul.* (Sachs, J., Trans.). Santa Fe: Green Lions Press. p. 113

Austin, J. H. (2009). *Selfless insight Zen and the meditative transformations of consciousness.* Cambridge, Mass.: MIT Press.

Bamberg, M. (2006). Stories: Big or small: Why do we care? *Narrative Inquiry, 16*(1), pp. 139-147.

Bennett M., Dennett, D., Hacker, P., & Searle, J. (2007). *Neuroscience & philosophy: Brain, mind & language.* New York, NY: Columbia University Press.

Biegel, G. M., Brown, K. W., Shapiro, S. L., & Schubert, C. M. (2009). Mindfulness based stress reduction for the treatment of adolescent psychiatric outpatients: A randomized clinical trial. *Journal of Counselling and Clinical Psychology, 77,* pp. 855-866.

Bloomberg & Volpe. (2012) *Completing your qualitative dissertation – A roadmap for beginning to end.* Teachers College, Columbia University: Sage publishing

Bohac-Clarke, V. (2012). Engaging the noosphere: An integral approach to teaching spirituality online. In J. Groen, D. Coholic, and J. Graham (Eds.), *Spirituality in social work and education: Theory, practice and pedagogies*. Waterloo, ON: Wilfrid Laurier University Press. pp. 141- 164.

Bransford, J., Brown, A., & Cocking, R. (2000). *How people learn.* Washington, DC: The National Academies Press.

Brookfield, S. D. (1995). What it means to be a critically reflective teacher. *Becoming a critically reflective teacher* (pp. 1 -27). San Francisco California: Jossey Bass Inc.

Calgary Board of Education Ends Statements. Retrieved from http://www.cbe.ab.ca/aboutus/ends.asp

Campbell, J. (1949). *The hero with a thousand faces.* Novato, CA: New World Library.

Campbell, J. (1972). *Myths to live by.* New York: Viking Press.

CAST. (2011). *Universal design for learning*. Retrieved from www.cast.org

Chambers, C., Hasebe-Ludt, E., Leggo, C., & Sinner, A. (2012). *A heart of wisdom: Life writing as empathetic inquiry.* NY: Peter Lang Publishers.

Chang, Ngunjiri, & Hernandez. (2013) *Collaborative auto ethnography.* Walnut Creek, CA: West Coast Press.

Connelly, F. M., & Clandinin, F. M. (1990). Stories of experience and narrative inquiry. *Educational Researcher, 19*(5), 2-14. pp. 114

Clandinin, D. J. & Connelly, F. M. (1992). Teacher as curriculum maker. *Handbook of research on curriculum*, pp. 363-401.

Clandinin, D. J. &Connelly, F. M. (1992). Narrative and story in teacher education. *Teachers and teaching: From classroom to reflection,* pp.124-137.

Clandinin, D. J. &Connelly, F. M. (1996). Teachers' professional knowledge landscapes: Teacher stories, stories of teachers, school stories, stories of schools. *Educational Researcher,* 25(3), pp. 24-30.

Clandinin, D. J. & Connelly, F. M. (2000). *Experience and story in qualitative research.* San Francisco: Jossey-Bass.

Clemens, J. K. & Mayer, D. (1999). *The classic touch: Lessons in leadership from Homer to Hemingway.* Contemporary Books.

Clemens, J. K & Wolff, M. (1999). *Movies to manage by: Lessons in leadership from great films.* Contemporary Books.

Crotty, M. (1998). *The Foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage Publications.

Csikszentmihalyi, M. (1993). *The evolving self: A psychology for the third millennium*. United States of America: Harper Perennial.

Csikszentmihalyi, M. (1997). *Finding flow*. United States of America: Basic Books.

Csikszentmihalyi, M., & Rathu, K. (1990). The psychology of wisdom: An evolutionary interpretation. *Wisdom: Its nature, origins and development* (pp. 25-51). Cambridge: Cambridge University Press.

Dall'Alba, G. (2009). Learning professional ways of being: Ambiguities of becoming. *Educational Philosophy and Theory, 41* (1). p.115

Damasio, A. (2010). *Self comes to mind: Constructing the conscious brain*. New York, NY: Panatheon Books, Random House, Inc.

Damasio, A. (1999). *The feeling of what happens: Body, emotion and the making of consciousness*. London, UK: Heineann.

Davidson R. J., Kabat-Zinn J, Schumacher J, Rosenkranz M, Muller D, Santorelli SF, Urbanowski F, Harrington A, Bonus K, Sheridan JF. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine.* Jul-Aug; 65(4), Pp. 564-70.

Davidson, R. J., Dunne, J., Eccles, J. S., Engle, A., Greenberg, M., Jennings, P., Jha, A., Jinpa, T., Lantieri, L., Meyer, D., Roeser, R. W. & Vago, D. (2012). Contemplative practices

and mental training: Prospects for American education. *Child Development Perspectives, Volume 6*(2) pp.146-153.

Dennett, D. C. (2003). *Freedom evolves.* New York, NY: Penguin Books.

Dennett, D. C. (1998). *Brainchildren.* Cambridge, MA: MIT Press/A Bradford Book.

Desbordes, G., Negi, L. T., Pace, T. W. W., Wallace, B. A., Raison, C. L., & Schwartz, E. L. (2012). Effects of mindful-attention and compassion training on amygdala response to emotional stimuli in ordinary, non-meditative state. *Frontiers in Human Neuroscience.* www.frontiersin.org/Human_Neuroscience/10.3389/fnhum.2012.00292/full

de Waal, Frans. (2009). *The age of empathy: Nature's lessons for a kinder society.* New York, NY: Harmony Books.

Doidge, N. M. D. (2007). *The brain that changes itself.* United States of America: Viking Penguin.

Eisner, E. (2002). The kind of schools that we need. *Phi Delta Kappan* pp. 576-583 116

Esbjorn-Hargens, S. (2006a). Integral education by design: How integral theory informs teaching, learning and curriculum in a graduate program. *Revision, 28*(3), pp. 21-29

Esbjorn-Hargens, S. (2006b) Integral research: A multi-method approach to investigating phenomena. *Constructivism in Human Sciences,* 11(1), pp. 79-107

Esbjorn-Hargens, S. (2009). An overview of integral theory: An all-inclusive framework for the 21st century. *Integral Institute Resource Paper,* 1, pp. 1-24

Faulkner, S. (2009). *Poetry as method.* Walnut Creek, CA: Left Coast Press.

Ford Slack, P.J (1995). Reflections on community: Understanding the familiar in the heart of the stranger. *The Constructivist Leader.* pp. 159-171. New York: Teachers College Press.

Fowler, L. C. (2006) *A curriculum of difficulty: Narrative research in education and in the practice of teaching.* New York, NY: Peter Lang Publishing.

Frank, A. W. (1995). *The wounded storyteller: Body, illness and ethics.* Chicago: The University of Chicago Press.

Frank, A. W. (2010). *Letting stories breathe: A socio-narratology.* Chicago: The University of Chicago Press.

Friesen, S., & Jardine, D. (2009). *21st century learning and learners*. Retrieved from http://education.alberta.ca/media/1087278/wncp%2021st%20cent%20learning%20(2).pdf

Freire, P. (1970). *Pedagogy of the oppressed.* (M. Bergman Ramos, Trans.). New York: Continuum.

Goleman, D. (1995). *Emotional intelligence*. Unites States of America: Bantam Books. Harper Torchbooks.

Goldsmith, H. H., Pollack, S and Davidson, R. J. (2008). Developmental neuroscience perspectives on emotion regulation. *Child Development Perspectives, 2*, 132-140. 117

Griffith, J. L & Griffith, M. E. (1994). *The body speaks: Therapeutic dialogues for mind-body problems.* USA: Basic Books.

Gyatso, T. (His Holiness the XIV Dalai Lama). (2005). *The universe in a single atom: The convergence of science and spirituality*. New York, NY: Morgan Road Books

Hasebe-Ludt, E., Chambers, C., & Leggo, C. (2009). *Life writing and literary metissage as an Ethos for our Times.* New York: Peter Lang Publishing, Inc.

Hodge, F., Pasqua, A., Marquez, C., & Geishirt-Cantrell, B. (2002). Utilizing traditional storytelling to promote wellness in American Indian communities. *Journal of Transcultural Nursing,* pp. 6-11.

Holmes, K. (2000). *Inspirations and innovations: The quest for the link between literature, creativity and leadership* (Unpublished Master's thesis). Royal Roads University.

Immordino- Yang, M. H., & Damasio, A. (2007). We feel, therefore we learn: The relevance of affective and social neuroscience to education. *Mind, Brain, and Education, 1*(1), pp. 3-10.

Irwin, R., & Cosson, A. (Eds.). (2004). *a/r/tography: Rendering self through arts-based living inquiry.* Vancouver, CA: Pacific Educational Press

Jardine, D. (2012). *Pedagogy left in peace.* New York, NY: Continuum International Publishing Group.

Jardine, D., Clifford, P., & Friesen, S. (2006). *Curriculum in abundance.* Mahwah, NJ: Laurence Erlbaum and Associates.

Jensen, E. (1998). *Teaching with the brain in mind.* Alexandria, VA.: Association for Supervision and Curriculum Development.

Jones, D. C. (2009). *Anselam and the academy of self-realization*. Calgary Alberta Canada: Detselig Enterprises Ltd.

Kabat-Zinn, J. (2013). *Full catastrophe living.* New York: Bantam Books Trade Paperbacks.

Lambert, L., Walker, D., Zimmerman, D., Copper, J., Lambert, M., Gardner, M, & Ford Slack. (1995). *The constructivist leader.* New York: Teachers College Press.

Leggo, C. (2015). Foreword. A. Cohen, *Becoming fully human within educational environments.* Burnaby, BC. The Write Room Press.

Leggo, C. (2010). Calling the muses: A poet's ruminations on creativity in the classroom. *Education Canada, Volume 43*(4) www.cea-ace.ca 118

Leggo, C. (2003). Backyard questions written in stone and water: Alchemic possibilities in the space of the heart. In E. Hasebe-Ludt & W. Hurren (Eds.), *Curriculum Intertexts.* New York: Peter Lange Publishers.

Lund D. E., Panayotidis. E. L and Towers, J. (2012). *Provoking conversations on inquiry in teacher education.* New York: Peter Lange Publishing.

Lutz, A., Brefcynski-Lewis, J. A., Johnstone, T., & Davidson R. J. (2008). Regulation of the neural circuitry of emotion by compassion medication: Effects of meditative expertise. *PlosONE, 3*(3), e1897.

Mckinnon, D. (2009). *Uncovering and understanding the spirituality and personal wholeness of school educators* (Unpublished PhD Thesis). University of Calgary.

MacDonald, E., & Shirley, D. (2009). *The Mindful Teacher.* NY: Teachers College Columbia University.

Martin, J. (2008). Integral research as a practical mixed methods framework: Clarifying the role of integral methodological pluralism. *Journal of integral Theory and Practice*, (2), pp. 155-163.

Morgan, G. (1997). *Imagin-i-zation. New mindsets for seeing, organizing and managing.* San Francisco: Berrett-Koehler Publishers, Inc.

Morgan, A. (2011). *Investigating our experience in the world: A primer on qualitative inquiry.* Chicago, Illinois: University of Tennessee Press.

Newmann, F.M. (2000). Authentic intellectual work: What and why? *Newsletter of Authentic Pedagogy, 8(1).*

Newmann F., Bryk A., & Nagaoka J. (2001). Authentic intellectual work and standardized tests: Conflict or coxistence? *The University of Chicago.*

Noddings, N. (1986). Fidelity in teaching, teacher education, and research for teaching. *Harvard Educational Review, 56*(4), pp. 496-510. 119

Norris, J., Sawyer, R., & Lund, D. (Eds). (2010). *Duoethnography: Dialogic methods for social, health and educational research.* Walnut Creek, CA: Left Coast Press Inc.

Nhat Hanh, T. (1975). *The miracle of mindfulness: An introduction to the practice of mindfulness.* Boston, MA: Beacon Press.

Nhat Hanh, T. (1991). *Peace is in every step: The path of mindfulness in everyday life.* NY: Bantam Books.

Nhat Hanh, T. (2009). *Happiness: Essential mindfulness practices.* Berkeley, CA: Parallax Press.

Oshry, B. (1995) *Seeing Systems- Unlocking the Mysteries of Organizational Life.* San Fransisco: Berrett-Koehler Publishers

Palmer, P.J. (1998). *The courage to teach.* San Francisco, CA: Jossey-Bass Publishers.

Pinar, W., & Grumet, M. (1976). *Toward a poor curriculum.* Dubuque, IA: Kendal/Hunt Publishing Company.

Plato. (1906). *The republic.* (A.D. Lindsay, Trans.). Canada, Fitzhenry & Whiteside.

Ramachandra, V. S. (2011). *The tell-tale brain: A neuroscientists quest for what makes us human.* USA: W.W. Norton and Company Inc.

Richardson, L., & Pierre, E. A. S. (2007). A method of inquiry. *Collecting and Interpreting Qualitative Materials*, p. 473.

Richardson, L. (1994). Writing as a method of inquiry. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Quantitative Research*. Thousand Oaks, CA: Sage Publications.

Roddick, B. J. (1993) Learning circles for lifelong learning connections. *Journal of the Alberta Association for Continuing Education, Volume 21.*

Rose, D. H. and Anne Meyer, (Eds). (2006). *A practical reader in universal design for learning*. Cambridge, Massachusetts: Harvard Education Press. p. 120

Rose, D., Meyer, A., Strangeman, N., & Rappolt, G. (2002). *Teaching students in the digital age: Universal design for learning.* USA: ASCD Books.

Ross, M. W. (2011). *The evolution of education: Use of biofeedback in developing heart intelligence in a high school setting* (Unpublished PhD thesis). University of Calgary.

Sawyer, R. K. (Ed.). (2006). *The Cambridge handbook of the learning sciences*. United States of America: Cambridge University Press.

Siegal, D. (2010). *Mindsight: The new science of personal transformation*. New York: Bantam Books Trade Paperbacks.

Seidel, J. (2006). *Some thoughts on teaching as a contemplative practice.* In G. Natriello (Ed), *Teachers college record.* Columbia University: Teacher's College.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Currency Doubleday.

Slagter, H. A., Lutz, A., Greischar, L. L., Francis, A. D., Niewenhuis, S., Davis, J. M., & Davidson, R. J. (2007). Mental training affects use of limited brain resources. *PloSBiology, 5, e138*.

Smith, D. (1999). *Pedagon: Human sciences, pedagogy and culture.* New York, NY: Peter Lange Publishing Inc.

Smith, D. (2012). Spiritual cardiology and a heart of wisdom. In Chambers, Hasebe-Ludt, Leggo & Sinner (Eds.), *A heart of wisdom: Life writing as empathetic inquiry.* Peter Lange Publishing, NY.

Sousa, D. A. (2001). *How the brain learns.* Thousand Oaks, CA: Corwin Press, Inc.

Sousa, D. A. (Ed.). (2010). *Mind, brain and education*. Bloomington, IN, USA: Solution Tree Press. p. 121

Steele, S. (2011). *The pursuit of wisdom in education* (Unpublished PhD Thesis). The University of Calgary.

University of Calgary. (2011). *Handbook for the Bachelor of Education Year 1.*

Urry, H. L., Reekum, C. M., Johnstone, T., Kalin, N. H., Thurow, M. E., Schaefer, H. S., . . . Davison, R. J. (2006). Amygdala and ventromedial prefrontal cortex are inversely coupled during regulation of negative affect and predict the diurnal pattern of cortisol secretion among older adults. *Journal of Neuroscience,* 26(16), pp. 4415-4425.

Vaill, P. (1996) *Learning as a way of being.* San Francisco: Jossey-Bass Publishers.

Van Manen, M. (1990) *Researching lived experience: Human science for an action sensitive pedagogy.* London, Ontario: The State University of New York.

Wheatley, M. J. (1992). *Leadership and the new science*. San Francisco California: Berrett-Koehler Publishers Inc.

Wheatley, M. J. (2002). *Turning to one another: simple conversations to restore hope to the future*. San Fransico, USA: Berrett-Koehler Publishers, Inc.

White, M., & Epston, D. (1990). *Narrative means to therapeutic ends.* New York: Norton.

Whyte, D. (1994). *The heart aroused: Poetry and the preservation of the soul in corporate America.* New York: Doubleday.

Wilber, K. (2000a). *A theory of everything: An integral vision for business, politics, science and spirituality*. Boston, Massachusetts: Shambhala Publications, Inc.

Wilber, K. (2000). *Integral psychology.* USA: Shambhala.

Wilber, K. (2006). *Integral spirituality*. Boston, Massachusetts: Integral Books An Imprint of Shambhala Publications, Inc.

Wilber, K., Patten, T., Leonard, A., & Morelli, M. (2008). *Integral life practice.* Boston, Massachusetts: Shambhala Publications, Inc.

Witek-Janusek, L., Alburquerque, K., Chronialk, K.R., Chroniak, C., Durazo-Arvizu, R., & Mathews, H. L. (2008). Effects of mindfulness based stress reduction on immune function, quality of life and coping in women newly diagnosed with early stage breast cancer. *Brain, Behavior and Immunity, 22,* pp. 969-981.

Wolf, M. (2007). *Proust and squid -the story and science of the reading brain.* New York, NY: First Harper Perennial Edition.

Yuen, C. (2013). *Mathematics anxiety learning phenomenon: Adult learner's lived experience and its implications for developmental mathematics instruction* (Unpublished EdD Thesis). University of Calgary.

Appendices

Appendix A: Recruitment letter Distributed to teachers interested in Mindfulness

Appendix B: Recruitment Procedures for Research Participants

Appendix C: Call for participants in a Research Study

Appendix D: Participant Consent Form

Appendix E: Initial Interview Questions

Appendix F: Life Writing Assignment Guide

Appendix G: Final Focus Group Questions

Appendix H: Summary of Participants' Responses about Mindfulness, Health, Wellness and Brain Development

Appendix I: Summary of Participants' Personal Definition of Mindfulness and the Role of Mindfulness/Wisdom Traditions in Curriculum and Learning

Appendix J: Summary of Participants' Use of Narrative Inquiry and Mindful Practice

Appendix A: Recruitment letter Distributed to Teachers Interested in Mindfulness

Dear Colleague,

I am honored to invite you to participate in my University of Calgary, Educational Research doctoral study entitled***, What is the role of Mindfulness in Curriculum and Learning?"*** Working together in a collaborative professional learning community this study hopes to bring together the stories of teachers to explore the role of mindfulness in curriculum and learning. Together we will explore personal and classroom stories around mindful praxis. If you have a passion for exploring the heart of our practice, and working together to bring this wisdom forward, please consider volunteering to be a part of this significant work.

All participants in this study will participate in an initial interview and then work with a collaborative learning team around the concept of "Life Writing." After the life writing experience there will be a final focus group. Story sharing will be through various formats honoring the UDL model and allowing us multiple modes of expression, representation and engagement. A University of Calgary on line learning platform will be utilized to allow for flexibility to accommodate personal and professional commitments.

To join me in this study, please respond via email. Pseudonyms will be used to protect the participants' privacy, and confidentiality requirements for this initial study will follow the ethical guidelines of the University of Calgary. It is my hope that future research will include some co-authoring opportunities, as well as ongoing work around implementing mindful praxis in your classroom and reflecting on the implication for future learning. There is no obligation to participate beyond this study.

Participation in this study will in no way affect your employment or relationship with your school board. There may be more than one school district participating in this study and the research is not connected to any school or area. The data will be used to inform professional development in the field and pre-service education programs.

I look forward to your wisdom and insight as we explore our chosen profession together.

Respectfully,

Kimberley Holmes B.Ed/M.A (Graduate Division Educational Research) Ph.D Candidate
Werklund School of Education, University of Calgary

Dr. Veronika Bohac-Clarke (Supervisor)

Appendix B: Recruitment Procedures for Research Participants

A call for participants will be done through email in a variety of secondary school contexts. There may be more than one school board involved in this research project.

Participants will be selected according to interest in mindfulness and the role of mindfulness in curriculum and learning.

Research participants will be recruited through email, face to face conversations, and discussion with teachers in the field around the research question. The following criteria will be considered

1. Teachers in their first five years of professional service at an accredited school board
2. Teachers who express an interest in mindfulness from a personal perspective
3. Teachers who are interested in exploring mindfulness through autobiographical writing or creative story sharing
4. Express an interest in mindfulness from a spiritual, physical, emotional and cognitive lens (holistic wellness)
5. Is part of a staff exploring student learning
6. Expresses an interest in working with a collaborative learning community to come to deeper understandings of *the role of mindfulness in curriculum and learning.*
7. Uses mindfulness in their teaching praxis.

Participation Procedures

- Introductory letters where distributed to potential research participants via email or fax.
- Consent form will be given to each participant. The researcher will discuss the nature and the extent of the participation (which is also detailed on the consent form). Participation involves an initial interview, four life writing sessions and a final focus group on the process explored
- The life writing narratives will be written in the comfort of his/her own home or professional setting. Submissions of the entries will be collected through a secure online site, such as a D2L shell. The collected data will be stored in a password protected data base.
- All research data will be stored in a password protected device. All printed materials will be locked in a filing cabinet in the researcher's home office. At the end of the project, the data will be stored in the same secured manner for no less than three years. All data will be destroyed afterwards.
- Reporting of the narratives of the participants will be pseudonymous.

Appendix C: Call for participants in a Research Study

- Do you have a personal or professional interest in mindfulness?
- Are you interested in how mindfulness impacts teaching and learning?
- Do you want to be a part of a professional learning community that explores the role of mindfulness in curriculum and learning?
- Do you want to impact the future of education with regards to curriculum and learning?

A research study is calling for participants who are interested in sharing their stories around mindfulness and how mindfulness is interpreted and incorporated into the curriculum. This study investigates the role of mindfulness in curriculum and learning. Participants will:

- Be involved in an introductory interview with the researcher
- Participate in a life writing exercise focusing on four points
    - How do you personally define mindfulness?
    - How do you interpret and incorporate the curriculum through the lens of mindfulness
    - What are the effects of current educational policy on your curriculum design, goals and implementation
    - How do you think storytelling can be used for personal and professional development
- Participate in a final focus group on the process explored

You may be eligible to participate in the study if;

- You have an interest in mindfulness
- You are in the first five years of the teaching profession
- You are interested in the role that mindfulness plays in curriculum and learning
- You are interested in how this connects to current policy and direction
- You enjoy sharing your experiences and writing about them
- You enjoy being a part of a professional learning community
- You have an interest in curriculum and learning

This study has been approved by the University of Calgary Conjoint Facilities Research Ethics Board.

If you are interested in the study please contact:

Kimberley Holmes

Appendix D: Participant Consent Form

Name of Researcher, Faculty, Department, Telephone & Email:

Kimberley Holmes B.Ed, M.A, Ph.D Candidate

Werklund School of Education, Graduate Programs in Education

University of Calgary

Supervisor:

Dr. Veronika Bohac-Clarke

Werklund School of Education, Graduate Programs in Education

University of Calgary

Title of Project:

What is the role of Mindfulness in Curriculum and Learning?

This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Calgary Conjoint Faculties Research Ethics Board has approved this research study.

Purpose of the Study

The purpose of this study is to explore the role of mindfulness in curriculum and learning. Research participants should have an interest in using mindfulness in their teaching. This research will also fulfil the requirements of a Doctoral degree in Curriculum and Learning.

What Will I Be Asked To Do?

This study will utilize a life writing methodology. Life writing involves participants sharing their stories and then collaboratively interpreting meaning and relevancy. As part of this study, you will be an unpaid volunteer but contributing significantly to the exploration of the role of mindfulness in curriculum and learning. You will participate in an initial interview, followed by participation in a life writing process focusing on four key points.

1. How do you personally define mindfulness?
2. How do you interpret and incorporate the curriculum through the lens of mindfulness?
3. What are the effects of current educational policy on your curriculum design, goals and implementation?
4. Reflections on the use of storytelling in the workplace.

There will be a final focus group to allow the learning community to reconnect and reflect on the experience, and it's relevancy to personal and professional development. Specific considerations will be given with regards to the research participant's interactions with storytelling and the system.

Commitment will be from 3-5 months but flexible as I am well aware of the significant time commitments of your teaching responsibilities. We will be using an on-line format so time will be flexible and there are no specific required time commitments. You may withdraw from the study at any time however any data collected up to the point of your withdrawal from the study will be retained and used. In respect of your privacy, you will not be contacted again regarding this study if you choose to withdraw. As a participant in this study you will be treated in accordance to the ethical guidelines of the Conjoint Facilities Research Ethics Board at the University of Calgary. Participation in this study is voluntary and participants may decline to answer all of any of the questions.

What Type of Personal Information Will Be Collected?

No personal identifying information will be collected in this study, and all participants shall remain anonymous, with the following option:

I wish to remain anonymous, but you may refer to me by a pseudonym: Yes: ___ No: ___

The pseudonym I choose for myself is: _____

You may quote me and use my pseudonym: *Yes:* ___ *No:* ___

Are there Risks or Benefits if I Participate?

There are no foreseeable risks, harms, or inconveniences to you as a participant in this study. If some emotional concerns do arise for you as a result of the life writing experiences and if you are interested in counselling, the researcher will assist you in accessing the Sun Life, or appropriate health care provider, website and direct you to the appropriate resources. Benefits of this study are to the profession as a whole as you are creating new knowledge around the role of mindfulness in curriculum and learning.

What Happens to the Information I Provide?

Your identity, as a participant in this study, will be kept confidential. You will be asked to choose a pseudonym, which will be used in any reference to your contributions to this study. You will be asked to review any interview transcripts that involve you – be it an individual interview or the concluding activity focus group. Once approved by you, transcripts are considered property of the researcher and may be quoted in the final manuscript that is written about the research findings. Any material written or published will be used in a way so as not to identify you, including using a pseudonym and omitting any identifying descriptors. The research data will be stored by the researcher and used to inform professional development. After the study is complete all the data will be destroyed unless permission is formally given to the researcher for the data to be used for publication. Your informed consent form will be in an electronic file for three years at which point the file will be deleted. After the study is complete all materials created by the participants will be destroyed unless formal permission for future publication is granted to the researcher by the research participant.

You have the right to withdraw from the study at any time without explanation. Correspondently, the researcher has the same right to ask for your withdrawal.

Signatures

Your signature on this form indicates that 1) you understand to your satisfaction the information provided to you about your participation in this research project, and 2) you agree to participate in the research project.

In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from this

research project at any time. You should feel free to ask for clarification throughout your participation.

Participant's Name: (please print) _____

Participant's Signature: _____ Date: _____

Researcher's Name: (please print) _____

Researcher's Signature: _____ Date: _____

Questions/Concerns

If you have any further questions or want clarification regarding this research and/or your participation, please contact:

Kimberley Holmes B.Ed, M.A

Werklund School of Education, Graduate Programs in Education

University of Calgary

Supervisor:

Dr. Veronika Bohac-Clarke

Werklund School of Education, Graduate Programs in Education

University of Calgary

If you have any concerns about the way you've been treated as a participant, please contact the Research Ethics Analyst, Research Services Office, University of Calgary at (403) 210-9863; email cfreb@ucalgary.ca. A copy of this consent form has been given to you to keep for your records and reference. The investigator has kept a copy of the consent form.

Appendix E: Initial Interview Questions

UNIVERSITY OF CALGARY

Initial Interview Questions

Initial Meeting

This meeting will establish the research parameters and provide background information to the research participants and the researcher. Due to the fact this research is being conducted in a variety of settings, this will be done either face to face, via **Adobe Connect, Skype** or some other on-line platform or placed into a secure dropbox within the d2l shell that is established for this research project.

1. Introduction of the primary researcher and the research questions
2. Introduction of an on line learning environment to complete the research questions and life writing activities (a University of Calgary secure d2l platform will be used for this process)

Initial interview questions

Background Information

1. How long have you been teaching and what context are you currently teaching in?
2. How would you describe your daily working conditions in your current setting?
3. How does your current setting allow time for reflection and contemplation?
4. Do you use a journal?
5. Are you comfortable sharing your personal and professional stories? Why or why not?

6. What role do you think experiences play in forming your thoughts about curriculum and learning?
7. Can story sharing help you understand yourself and others?
8. Have you been exposed to mindfulness training? If so, how?
9. Do you practice any mindfulness or wisdom traditions?

Key Research Questions

1. How do you personally define mindfulness?
2. Does mindfulness or wisdom traditions have a place in curriculum and learning? If so, how?
3. Are you aware of any connection between mindfulness health and wellness? If so, how?
4. Are you aware of any connections between mindfulness and brain development? How?

Appendix F: Life Writing Assignment Guide

Life Writing Assignment Guide

Life Writing

These will be placed in the drop box in the d2l shell. This allows ONLY the researcher to see this section. The researcher will provide comments via the d2l shell to determine meaning and ensure accurate understanding of the data. Additionally, research participants will be given the option to share all or parts of their Life writing segments in the common discussion board, if they wish, and respond to other participants' submissions.

Life writing number (UL) –Personal Journey to Mindfulness

The experiences and stories of our lives impact who we become and how we walk in the world. For this first life writing session, consider your own life experiences that have brought you to where you are today. ***How do you personally define mindfulness based on your life story?***

Life writing number 2 (UR)

How do teachers incorporate mindfulness into their curriculum design?

For this life writing exercise I would like you to reflect upon the meaning of the word curriculum. What does curriculum look like in your classroom and how do you determine if the

desired outcomes are being met? How do you and your learners experience the curriculum? Can this experience be connected to the concept of mindfulness? ***Specifically, how do you use mindfulness in the classroom context? What does it mean to your own professional practice and to your teaching?***

Life writing number 3(LR)

The teaching practice is filled with daily challenges. For this life writing I would like you to reflect on your ideal philosophy and the current reality of your teaching situation. Are there obstacles presented by the system that might impact your ability to teach mindfully? ***What role does current system directions and policies play in determining your day to day activities in the classroom context?***

Life writing number 4(LL)

Storytelling is a traditional way to transmit knowledge and create new understanding**.** For this life writing ***reflect on whether and how storytelling could be utilized to build a common vision in a learning community and to facilitate teacher professional development and learning.***

Appendix G: Final Focus Group Questions

Final focus group questions

Closing Activity- focus group questions

These will be placed in the discussion section after the life writing activity is complete. This will allow for the learning community to reconnect and reflect on the experience, and it's relevancy to personal and professional development. Specific considerations will be given with regards to the research participant's interactions with storytelling and the system.

1. Has this experience of life writing had any impact on your own personal and professional growth?

2. Could story sharing be used for professional development regards to educational theories and concepts? Why or why not?

3. Could story sharing be used as a process to aid in teachers' understanding of school systems? Why or why not? If yes, how could this be done? Could the learning be mutual, between the system policy makers and their perspective, and teachers' perspectives as implementers of those policies?

4. Can life writing be used as a process to facilitate a professional learning community amongst teachers?

5. Do you have any final comments with regards to your experience in this research project?

Appendix H: Summary of Participants' Responses about Mindfulness, Health, Wellness and Brain Development

This chart presents the initial thoughts of the research participants with regards to health, wellness and brain development.

Participant's Name	Connection Between mindfulness, health & wellness	Connection between mindfulness & brain development
Pat R	-I know that when you take time to be mindful you tend to listen to your body and take care of it health wise. Other than that I do not know much technical information	I do not know anything about this
Jenn D	-Yoga has proven to me that there is a connection between health and wellness -Allowing my own mind to relax has helped my own wellness	- I would imagine there are a number of benefits between the brain and trauma -Mindfulness has the ability to move people from their limbic brain into the pre-frontal cortex where well thought out decision making can happen. -I would like to learn more about the topic
Cole	-It would seem obvious that time and TLC for the body to heal between exertions would also benefit the mind and soul.	Yes. NMT (Neurosequental Model of Therapeutics) has a great deal of power to sooth the amygdala fighting the flight or fight response -This is done through soothing arousal of the brain stem and sensory functions and has a great deal of calming power -This allows students to gain perspective and use their cortex as the rational appreciator of beauty it was intended to be.
Hsteach	-You can't have health and wellness without mindfulness because health and wellness is a lifestyle.	-Being mindful helps us make heathy choices that will help stimulate brain development.
Byron	-After suffering psychosis, I learned quickly that the way we experience our world largely affects our mental and physical health.	-I would assume there are connections however I am not familiar with any research or theories.

	-I am learning the more mindful I am in my professional and personal life the healthier I feel	
Tasha	I believe it is connected to both mental and physical health -Without the ability to reflect and achieve moments to breath we begin to spiritually deteriorate. This leads to anxiety, depression, weight gain, inactivity and so many other health consequences.	-No I am not aware of any connections but I assume that there is a correlation.
Lynn Green	No I am not	No I am not
Nan Austin	Yes. A healthy habit such as mindfulness has a tendency to breed other healthy self-care habits.	Yes. Increased neuroplasticity, better memory, problem solving skills and a more highly developed left side of the prefrontal cortex.
Rhap	I believe that there is a connection between being healthy and being mindful.	No

Appendix I: Summary of Participants' Personal Definition of Mindfulness and the Role of Mindfulness/Wisdom Traditions in Curriculum and Learning

This chart summarizes personal definitions of mindfulness and the role that mindfulness plays in learning. The results from this inquiry allowed me, as the researcher, to establish an initial benchmark with regards to the research question.

Participant's Name	**Personal definition of Mindfulness**	**The Role of mindfulness/wisdom traditions & learning**
Pat R	Mindfulness is about understanding what you need to remain balanced. It is easy for teachers to burn out and mindfulness is about taking time to breathe and remember why you picked this practice and the joy that it brings. -It is also about saying NO, and knowing when you have already done enough for the week and that it is OKAY not to do everything.	Yes it has a place. Some of my students can't function in class without their breakout time or moments to pause. -Our world is too fast and they need to learn how to breathe and calm down -My school already has a yoga class but there is a lot of room to expand.
Jenn D	Mindfulness is the moment between the inhale and the exhale. It is the pause. It is the stillness and peace-where the past and the future still exist but you are fully present.	-Absolutely. The process of mindfulness has never been so important. With the incredible rise of anxiety in school (living in the future) and the overwhelming issues of depression in schools (living in the past) being able to find space in between is critical. It is also critical for teachers as they experience the same stress and fatigue that students do and many (myself included) suffer from both anxiety and depression -Coping skills are very important
Cole	-The practice of taking a step back -the deep breath before a decision -an attempt to grasp the omnipresent , simple truth of what is important in our world	-Students deserve time for reflection -need time to think for themselves, think about others, think about thinking -they need time and tools to reflect

Hsteach	-Constant reflection upon my own learning and growth -Mindfulness is a way to help me grow my own understanding of who I am	-Mindfulness plays an important role in curriculum, as it allows us to continue to grow and improve our practice. By being mindful we can provide valuable information about who we are as lifelong learners
Byron	-Mindfulness is awareness. Not simply aware of the self, but also of oneself in relation to their surroundings. -It is the ability to focus on the moment and not lose perspective that the moment exists within a much larger context	-Anxiety is on the rise in all avenues of society for many reasons -Mindfulness is a practice that helps students cope and recognize things as they are as an exchange for reducing anxiety -If mindfulness forces on individual's healthy self-development than I maintain that it is inextricably linked to education.
Tasha	-Mindfulness is being present. It is taking the moment to hear the student -It is having the ability to see beyond the prescribed curriculum and build those human relationships which will lead to more fulfilling curriculum experiences as students will begin to bridge their personal experiences with curriculum	-Mindfulness happens without us being aware that we are doing it -I do think it would be beneficial to have mindfulness become part of the written curriculum because until it does, teachers will continue to race against the clock and feel pressured to complete the prescribed curriculum regardless of the comprehension which is not mindful of the student.
Lynn Green	Mindfulness is keeping in mind what students are going through, what they bring to school besides binders and textbooks -It is also being aware of the culture, language and home life the student brings with them to school.	-Yes I believe that it has a place in pre-service curriculum. Teaching is much more than teaching content and skills.
Nan Austin	Mindfulness is an open, attuned and accepting awareness of the present moment	-yes. Our staff has observed a significant amount of students who suffer from anxiety, depression or unhealthy stress management. Our hope is that

		mindfulness will help the students become more resilient.
Rhap	I am not sure how I define mindfulness as I feel overwhelmed at work. I am finding it hard to be present with my students and even myself. -I suppose one would define mindfulness as being self-aware of one's feelings, thoughts, actions and needs while being accepting of everything being experienced at any given moment.	Mindfulness must have a place in curriculum for both teachers and students. -We are a society lost in standardized tests, technology and standardized tests. -As a teacher, I often feel lost in the system, and with the amount of student emotional issues that I see on a daily basis, I know the students feel lost too.

The provided definitions of mindfulness focus on the idea of being present and paying attention. The participants acknowledge that mindfulness involves an acceptance of the present moment and the ability to reflect, which allows for growth and development. With regards to the role of mindfulness in curriculum and learning, all participants felt it had a significant place. Many referred to anxiety, stress and depression as a key concern, as well as feeling pressured to meet requirements in a short period of time.

Appendix J: Summary of Participants' Use of Narrative Inquiry and Mindful Practice

Name	Comfort Sharing Stories	Role of Experiences	Role of Story Telling	Mindfulness Training	Mindfulness Practice
Pat R	Yes. In our practice it is important to share. I hope my experiences will help someone else	-Everything looks fine on paper but we need to see it in action -Experience gives us the space to grow professionally	-Hearing other peoples' experiences will help me to develop new strategies and possibly understand new teaching methods. -No two teachers are alike and the best way we can learn from one another is to share our stories.	Yes. I had a professor who helped me understand my practice and how the implementation of mindfulness is a great way to stay balanced. -I work on my own mindfulness practice and am investing time into learning more	-Learning meditation, different therapies, intuitive massage and journaling
Jenn D	Yes. I believe that in order to learn from others you also need to offer a piece of yourself	-We are the product of our histories. Experience form a great deal of our thoughts about curriculum, teaching, learning and existing.	-There is a very revealing nature in telling stories. It can be an incredible healing tool as we learn things bother us more than we think they do.	-Some during therapy and I practice yoga asana -I had some exposure in my University degree	-Yoga -Drawing
Cole	Yes and believes that it is valuable for	-Deep experiences with the subject matter allow	Sharing our stories gives power to our feelings; it gives	Read, *Teach, Breathe, Learn,* which is an	-Meditation -Deep breathing

	both the giver and the receiver	for richer teaching, thus richer learning	them life when we need life.	overview to mindfulness -no formal meditation classes or retreats	throughout the day -Thinking of and delivering random acts of kindness -Regular massage and wellness practices -Makes space for wellness and reflective spaces
Hsteach	I love sharing my personal stories. Many times we get caught up in teaching and forget to reflect with others about both positive and negative stories.	Experience has an immense role in shaping my thoughts around curriculum and learning. I have made significant changes in assessment and classroom management based on my reflections on my experience.	Story sharing is important as it allows us to receive feedback about situations. It is also important because it allows us glimpses into the stories of others.	No	I believe that mindfulness plays and important role in curriculum as it allows us to continue to grow and improve our practice. -I reflect on my day to day activities when I am running, song writing or listening to music.
Byron	Yes I am comfortable. I feel others can learn through my experiences	-We are a result of our experiences. It is impossible to	-Sharing is caring and I believe that we come to understand our	-I was exposed to mindfulness during my	- I do not practice mindfulness as much as I should. I

	just as I can learn through theirs.	separate the Self from the profession	existence through the eyes of the Other. By telling and hearing our story we come to emphasize with experience and discover so much more about ourselves.	teacher training,	suffered a mild psychosis at the end of my first year of teaching due to stress and pressure. Since then I have started to practice breathing, categorization and truth telling.
Tasha	Yes I am comfortable sharing my personal and professional stories. -Teaching is an overwhelming and stressful job so it is important to know that you are not alone in your experiences	-As a teacher it is difficult to place yourself in the shoes of students -Constantly trying to meet curriculum expectations without focusing on the impact on your students -As I cram everything in that I need to teach and access in a prescribed time, I find myself becoming overwhelmed and wondering	-Storytelling is essential in learning. -It helps you develop perspective, not only about yourself but about others.	-I was exposed to the concept of mindfulness in my teacher education program	-I practice yoga at times and think it is part of mindfulness

		how the student side is fairing.			
Lynn Green	Yes I feel comfortable sharing personal and professional stories for the sake of the study	-Experience always shapes our thoughts. How we experiences school when we were a child shapes our thoughts on curriculum ,learning and teaching	-By sharing stories you are able to come together and see what others are going through. Often experiences are similar and even if problems aren't solved by discussing it the process helps. -I grew up learning to talk through my problems to find a solution so I think by sharing things your able to see things in a different light (FNMI participant *)	No.	No
Nan Austin	Yes.	I am a big believer in experimental learning. I do think however that I rely too much on the memories of past experience when formulating new ideas or	While science gives us fact, story gives meaning. -We are storytelling creatures -I am also aware that humans tend to tell themselves stories that may be damaging,	Yes. I experienced a bad car accident which caused significant PTSD. My family assisted me by finding mindfulness teachers.	-Meditation classes -yoga classes -martial arts classes -Buddhism practice

		evaluating risk.	especially if this is tied to a notion of absolute truth. I believe this contributes to anxiety and stories of the past must be balanced with the present moment.		
Rhap	-Generally comfortable sharing stories and I understand the importance of shared stories to come to a common understanding.	-My experience plays a huge role in curriculum.	-Sharing stories helps me to understand where others are coming from and how they exist in the world	Yes	-yoga -prayer -meditation

All research participants felt it was important to share experiences through the use of stories. Each of the participants expressed a high level of comfort and acknowledged that experience plays a large role in how they interpret the world. The exposure to mindfulness training was variable. Some had experience with mindfulness training and others no experience at all. Types of mindful practice included meditation, prayer, massage, journaling, yoga, martial arts, drawing, deep breathing, and running. They all acknowledged the need for mindful activities in their life, yet lamented about the pressures they felt in teaching.