A HEALTH PROMOTING CONTINUOUS LEARNING
SUSTAINABLE EDUCATION SYSTEM

by

Colleen M. Stanton

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

© Copyright by Colleen M. Stanton, 2014
A HEALTH PROMOTING CONTINUOUS LEARNING SUSTAINABLE EDUCATION SYSTEM

Colleen M. Stanton

Doctor of Philosophy, 2014

Department of Curriculum, Teaching and Learning

University of Toronto

Abstract

This thesis was inspired by a new, evolving vision of a health promoting, continuous learning, education system with an ecological consciousness and focus on sustainability. In health promotion we are coming to a greater understanding of what creates health and how it is created in complex living systems - individuals, organizations, communities and our planet.

The setting is a large school district in Ontario involved in transformational systems change through creating collaborative learning environments, distributed leadership, and networking – locally and internationally.

The research questions were: 1) Why and how do the top three most influential system environments (leadership, a culture of continuous learning, and interrelatedness of work and life) promote the optimal health, well-being, and sustainability of individuals (teachers, principals and supervisory officers) and the school district as a whole?; 2) What are the principles, patterns, relationships, and synergies that are integral to creating a health promoting, continuous learning, sustainable system? and; 3) Is there one or possibly two system environment(s) that might be a major enabler(s) for creating a health promoting, continuous learning, sustainable system?

This study was a purposive qualitative study involving sixty semi-structured interviews with teachers, principals, and district leaders. The data were analyzed using thematic analysis and an ecological, holistic systems approach, involving dialogue with experts in systems thinking and change.
The findings identify: (a) 12 major themes emerging from three system environments; (b) the synergy point; (c) leadership as the major enabler (d) one major pattern of increasing complexity and consciousness of health, well-being, and sustainability; (e) three sub-patterns: leadership, a culture of continuous learning, and interrelatedness of work and life; and (f) four tensions and paradoxes.

This study makes five substantial contributions:

- drawing on an ecological, holistic systems approach to health, well-being, and sustainability;
- using a systems approach to research design and methodology;
- using three knowledge lenses to draw on literature across diverse fields;
- identifying 12 Principles of a Health Promoting, Continuous Learning, Sustainable System;

Recommendations and suggestions for further study are outlined.
Acknowledgements

My doctoral experience was an amazing journey in learning and life. I thoroughly enjoyed the process and particularly all of the wonderful people that supported and inspired me.

I would like to begin by acknowledging and thanking my supervisor Dr. Carol Rolheiser for her amazing mentorship during my doctoral process. Carol was able to create an environment of learning that promoted my optimal growth. She provided just the right amount of structure to guide me, and at the same time significant openness and flexibility so that I could continue to be curious, ask questions, and learn in many new ways. Carol is extremely talented, creative, and collaborative in her team approach and in managing the diverse tensions and paradoxes of many different perspectives. During my time learning from her she took on many new challenges, including becoming the inaugural Director of the Centre for Teaching Support and Innovation, University of Toronto. I greatly appreciated her caring nature and at the same time her vast expertise and significant precision. Carol was very patient as I delved into many new ideas and fields while guiding me in synthesizing my research and becoming more articulate and precise in my writing. Thank you Carol for supporting me on this amazing learning journey!

I would like to thank my committee members Dr. Stephen Anderson and Dr. Blair Mascall who contributed significantly to my team with their extensive knowledge and expertise in distributed leadership, evaluation, qualitative methodology, and systems change. Their ability to ask deep questions helped me to think in new ways, to be more precise, and to question my underlying values and worldviews. Thank you to Dr. Jack Miller for participating in my final oral defense and for inspiring me while taking his course in Holistic Curriculum.

Thank you to Dr. Trevor Hancock for being my external thesis reviewer. He is recognized internationally for his work in health promotion, in particular for his ecological systems approach to creating Healthy Cities, Communities, Schools, and Workplaces. Dr. Hancock contributed a very thoughtful review and suggestions for strengthening my thesis. It was an honor to have him as my external reviewer.

I would like to thank the many external system thinkers who gave so generously of their time to share with me their wisdom and experience in a knowledge area that is evolving. In particular, Dr. Fritjof Capra who met in-person with me in Berkeley California on two occasions.
for extended periods of time and shared his expertise as a physicist, ecologist, world renowned author and thinker. Dr. Capra’s deep knowledge of the principles of living sustainable systems was integral to my research study. His work with the Centre for Eco-Literacy is shifting the paradigm and thinking about health and ecology around the world.

Thank you to Dr. Irving Rootman for his encouragement of my work in health promotion earlier in my career. It was an honor to work with and learn from him. Dr. Rootman is recognized internationally for his work in health promotion and was the inaugural Director of the Centre for Health Promotion at University of Toronto.

During my time at OISE, University of Toronto I really appreciated the opportunity to learn from leaders in educational theory, policy studies, curriculum, and adult education, and in particular Dr. Ken Leithwood, Dr. Michael Fullan, Dr. Eunice Jang, Dr. Ardra Cole, and Dr. Marilyn Laiken.

Thank you to Dr. Margaret Edwards and Dr. Caroline Park, Faculty of Health Disciplines, Centre for Nursing and Health Studies, Athabasca University, where I have been teaching part-time over the last ten years in the graduate program, for their ongoing encouragement and support. Thank you to Dr. Louise Gormley and Martha McGuire for their friendship and expertise in research and evaluation that they have shared so generously with me.

I would like to thank my loving parents Frederick Francis Stanton and Lyla Mary Stanton (nee Kennedy). My mother passed away early in my life (November 1985) and my father sadly died seven months before I completed my oral defense (December 2013). I know they are both proud that I achieved this life goal. My father encouraged me to complete my thesis and was there every day to talk with me about my challenges and listen to my endless questions. He reminded me that I have asked why since I was a little girl. As parents they encouraged all of their four children to be highly conscious of who they are, their values, and what their unique purpose is in life. They also encouraged us to contribute back to the world, while taking responsibility and caring for others. My mother was an amazing leader, teacher of nursing students and she began to talk with me and inspire me to think about global health and well-being when I was a very young girl. She was very creative, loved the arts and music, encouraged me to follow my dreams, and inspired me to learn more about and develop my relationship with the Divine/God. My father, a very successful businessman and entrepreneur, showed me how you can achieve any goals you set for yourself,
how to enjoy and accept people for who they are, and how to live a life of kindness, generosity, humility, compassion, and care for others.

Thank you to my wonderful siblings (Carmel, Fred and Rob) for their ongoing lively discussions and debates that helped me to learn and thrive in diversity, while respecting different worldviews and opinions and continuing to share deeper values. Over the last few years they have continued to be there listening to my endless stories about my thesis journey.

Thank you to my large extended family - my sisters and brothers in-law (Paddy, Caroline, Martha, Jennifer, Kevin, Don), all of my nieces (Theresa, Marie, Laura, Elise, Sara, Bridget, Abby, Christine) and nephews (Ryan, Shaun, Connor, Brian) and close friends Nancy and Kay who kept me going through this journey.

My husband Bob continues to be my inspiration and love. He inspires me through his own amazing and quiet leadership. Bob is courageous and able to deal elegantly with the ongoing complexities, tensions and paradoxes of change. He is not afraid to try new things, encourages and listens to diverse ideas, is always eager to take on new projects, and always there to help others. Bob is always excited about travelling to new lands – both figuratively and in reality. He has eagerly travelled with me to new places over the years to be with family, learn about new cultures, present jointly at conferences, visit with professors in different countries, and take on new studies. He exemplifies many of the leadership and human qualities that are so important in creating a healthy environment, particularly his openness, kindness, generosity and patience. Bob has supported me through many difficult life changes and has supported me to be a life-long learner over the last 25 years. We both really enjoy change while at the same time appreciate the stability and relationships of our loving families, friends, our Dalmatians (Apollo and Neptune), our cottage, nature, and the Divine.

Importantly, I am appreciative of all of the participants that gave of their time and contributed their deep reflection and wisdom to this study. I would like to thank the teachers, principals, supervisory officers, trustees, managers, researchers, Director, and staff who agreed to talk with me throughout this study. My hope is that the findings from this study will be actively used in shaping the future. I thank them for sharing so much of themselves in this process.

Through the support of all those mentioned, I feel so very blessed – my deepest thanks!
# Table of Contents

Abstract................................................................................................................................. ii  
Acknowledgements.............................................................................................................. iv  
Table of Contents................................................................................................................. vii  
List of Tables ........................................................................................................................ xii  
List of Figures ......................................................................................................................... xii  
List of Appendices ................................................................................................................. xii  
Glossary of Primary Terms and Concepts ........................................................................... xiii  
Advance Organizer ............................................................................................................... xvii  
Preface ................................................................................................................................. xviii  

## CHAPTER 1: INTRODUCTION ....................................................................................... 1  
A Health Promoting, Continuous Learning, Sustainable Education System ..................... 1  
Setting and Research Questions .......................................................................................... 1  
Rationale ............................................................................................................................... 2  
Focus of This Research ......................................................................................................... 2  
Building on the Strengths of the Education and Health Promotion Fields ....................... 3  
My Ontology as a Researcher and Educator ....................................................................... 4  
Conceptual Framework ........................................................................................................ 6  
  Eight System Environments ............................................................................................... 8  
  Three Knowledge Lenses ................................................................................................. 9  
  An Ecological, Holistic Systems Approach .................................................................... 9  
  Principles of a Health Promoting, Continuous Learning, Sustainable System ............ 10  
  Open Systems: Interconnectedness of Internal and External Environments ............... 10  

## CHAPTER 2: LITERATURE REVIEW ......................................................................... 11  
Three Knowledge Lenses .................................................................................................... 11  
  Knowledge Lens 1: Health and Health Promoting Systems ....................................... 11  
  Knowledge Lens 2: Continuous Learning Systems ......................................................... 14  
  Knowledge Lens 3: Knowledge and Appreciation of Living Systems, Change, and  
    Sustainability ................................................................................................................. 16  

vii
Top Three Most Influential System Environments ..............................................................16
System Environment 1: Shared and Distributed Leadership .............................................17
System Environment 2: Culture of Continuous Learning .................................................21
System Environment 3: Interrelatedness of Work and Life .............................................26

Identifying the Principles of a Health Promoting, Continuous Learning,
Sustainable System ........................................................................................................28
Principle 1: Open Systems Nested Within Open Systems .................................................32
Principle 2: Interrelatedness ..............................................................................................36
Principle 3: Relationships .................................................................................................38
Principle 4: Communities, Collaboratives, and Networks ..................................................41
Principle 5: Diversity of Ideas, Cultures, Worldviews, and Knowledge ..............................43
Principle 6: Dynamic Balance and Self-Organizing Systems ............................................46
Principle 7: Flow ..................................................................................................................49
Principle 8: Growth, Development, and Learning ..............................................................51
Principle 9: Emergence and Design ....................................................................................56
Principle 10: Meaning, Purpose, and Consciousness ........................................................60
Principle 11: Loss, Change, and Letting Go ......................................................................64
Principle 12: Sharing of Power, Control, and Empowerment ............................................66

Implications of the Literature Review for Curriculum and the Education System ..........71
Systems and Complexity Approaches in Research ............................................................73

CHAPTER 3: METHODOLOGY ...........................................................................................77
Alignment With My Own Strengths, Approach and Ontology ...........................................78
A Ecological, Holistic Systems Approach to Research ......................................................78
Context and Setting for the Research ................................................................................80
Data Collection Methods and Criteria for Sampling / Selection .....................................83
Open-Ended Interviews with External Key Experts .........................................................84
Semi-Structured Interviews With Participants at the School and District Level ................85
Informal Discussions With Key Informants Inside This System .....................................88
Data Analysis ....................................................................................................................89
Limitations of the Study ....................................................................................................91
Ethical Aspects of this Study ........................................................................................................... 92
Collection and Use of Personal Information From the Interviews ........................................ 92
The Consent Process ...................................................................................................................... 93
Risk / Confidentiality .................................................................................................................... 93
Possible Benefits ........................................................................................................................... 94

CHAPTER 4: FRAMING THE ANALYSIS AND FINDINGS .............................................................. 95
12 Principles of a Health Promoting, Continuous Learning, Sustainable System ................. 95
Chapter 5: Diverse Voices and Chapter 6: Patterns ................................................................. 97

CHAPTER 5: DIVERSE VOICES ................................................................................................... 99
System Environment 1: Leadership ............................................................................................ 101
Theme 1: Appreciation of Human Spirit and Respect for All of Life .................................... 103
Theme 2: Authentic Sharing of Power and Control Through Empowerment ...................... 110
Theme 3: Diversity and Meaningful Input Into Decision-Making ......................................... 119
Conclusion .................................................................................................................................... 123
System Environment 2: A Culture of Continuous Learning .................................................. 124
Theme 1: Diverse Ways of Knowing ......................................................................................... 125
Theme 2: Embedding Learning Into Ongoing Processes and Relationships ...................... 130
Theme 3: Creativity, Risk Taking, Innovation, and Appreciation of Resources .................. 134
Theme 4: Learning as an Ongoing Reflective Process and Practice ..................................... 140
Conclusion .................................................................................................................................... 144
System Environment 3: Interrelatedness of Work and Life .................................................. 144
Theme 1: Self-Awareness: Know Yourself, Values, Worldview, and Strengths ...................... 147
Theme 2: Finding Balance Through Approaches to Change and Structures ...................... 149
Theme 3: Life Stages and Generational Differences ................................................................. 154
Theme 4: Awareness and Service to the Whole: Empathy, Forgiveness, Ecological, Spiritual, and Global Well-Being ......................................................................................... 155
Theme 5: Appreciation of Loss, Change, and Letting Go ....................................................... 158
Conclusion .................................................................................................................................... 160
Synergy Point: Meaning, Purpose, and Consciousness .............................................................. 161
Importance of the Synergy Point to Health, Well-Being, and Sustainability ......................... 161
Conclusion .................................................................................................................................... 165
CHAPTER 6: PATTERNS ................................................................................................................. 166
Background to Complexity and Consciousness ........................................................................... 166
Major System Pattern .................................................................................................................. 168
Reflective Framework: Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability .................................................................................................................. 169
Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability .......... 170
Theoretical Basis for the Framework’s Five Levels ...................................................................... 172
  Level 1: Ordered Systems (Autocratic / Compliant) and
  Level 2: Organized Systems (Top-Down / Planned / Improvement) .................................. 172
  Level 3: Social Systems (Collaborative / Adaptive) .............................................................. 174
  Level 4: Learning Systems (Emergent / Curious / Generative) ........................................... 176
  Level 5: Living Systems (Integrative / Holistic / Complex) .................................................. 178
Application of the Reflective Framework .................................................................................... 182
Understanding the Leadership Sub-Pattern Through My Reflective Framework ................. 182
Clustering System and School Leaders ....................................................................................... 184
Overview of the Leadership Sub-Patterns in the Data ............................................................. 196
Understanding the Culture of Continuous Learning Sub-Pattern Through My Reflective Framework ........................................................................................................................................... 205
  Sub-Patterns of a Culture of Continuous Learning: Five Level Framework ...................... 206
  Clustering of Elementary and Secondary Schools ............................................................... 207
  Summary ................................................................................................................................ 213
Understanding the Interrelatedness of Work and Life Sub-Pattern Through My Reflective Framework .................................................................................................................................. 215
  Sub-Patterns of Interrelatedness of Work and Life: Five Level Framework ..................... 216
Understanding the Synergy Point: Meaning, Purpose, and Consciousness ......................... 219
Tensions and Paradoxes ............................................................................................................. 222
  Organizing and Leading ......................................................................................................... 225
  Learning and Social Systems ................................................................................................. 227
  Differentiation and Integration .............................................................................................. 229
Diverse Values in Healthy Sustainable Systems ........................................................................ 231
Summary ................................................................................................................................... 232
CHAPTER 7: SUMMARY OF KEY FINDINGS, IMPLICATIONS AND CONTRIBUTIONS

Summary of the Major Findings

Research Question 1
  Leadership as the Enabler
  Interrelatedness of Work and Life
  School District’s Very Strong Culture of Continuous Learning
  Synergy Point of the Three System Environments: Meaning, Purpose, and Consciousness

Research Question 2
  Major System Pattern and Three Sub-Patterns

Research Question 3

Contributions of This Research Study
  An Ecological, Holistic Systems Approach to Health, Well-Being, and Sustainability
  Systems Approach to Research Design and Methodology
  Use of Three Knowledge Lenses Drawing on Literature Across Diverse Fields
  Identification of 12 Principles of a Health Promoting, Continuous Learning, Sustainable System
  Development of a Reflective Framework: Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability

Implications and Recommendations
  Policy and Governance
  Practitioners
  Academics and Researchers
  My Reflections as a Researcher

REFERENCES

APPENDICES
List of Tables

Table 1: Sub-Patterns of Leadership: Elementary Schools Panel / Clustering..........................185
Table 2: Sub-Patterns of Leadership: Secondary Schools Panel / Clustering .........................190
Table 3: Sub-Patterns of Leadership: Panel and Senior Leadership Team Clustering ...............196

List of Figures

Figure 1: Conceptual Framework ..........................................................................................7
Figure 2: The 12 Principles of a Health Promoting, Continuous Learning, Sustainable System .........................................................................................................................29
Figure 3: Qualitative Research Methodology: Thematic Analysis and Ecological, Holistic Systems Approach .........................................................................................................................81
Figure 4: Diverse Voices: The Three System Environments, Twelve Themes, and the Synergy Point ........................................................................................................................................100
Figure 5: Reflective Framework: Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability ........................................................................................................171

List of Appendices

Appendix A: The Mandala of Health: A Model of Human Ecosystem (Hancock & Perkins, 1985) ........................................................................................................................................287
Appendix B: Initial Nine Principles of a Health Promoting, Continuous Learning, Sustainable System ........................................................................................................................................288
Appendix C: Criteria for Selection of Schools Given to Senior Leaders (Stanton, 2009) ........289
Appendix D: Package of Information Sent to Participants in the Semi-Structured Interviews (Stanton, 2009) ........................................................................................................................................291
Appendix E: Connecting the Themes and Subthemes from Diverse Voices and the 12 Principles of a Health Promoting, Continuous Learning, Sustainable System (Stanton, 2014) ........................................................................................................................................304
Appendix F: Connecting the 12 Principles of a Health Promoting, Continuous Learning, Sustainable System and Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability (Stanton, 2014) ........................................................................................................306
Appendix G: Stepping Up the Scale of Leadership Distribution (Modified from Hargreaves & Fink, 2006 by Stanton, 2009) ........................................................................................................308
Glossary of Primary Terms and Concepts

This thesis contains terms and concepts unique to this research investigation and focus. To assist the reader, these are framed in this glossary. Related terms and concepts are organized and clustered (indented) under an umbrella term/concept according to their application in this thesis.

Complexity: being interconnected or entwined; more parts mean greater complexity; complexity is a result of two processes – differentiation and integration (modified from Business Dictionary, n.d.; Csikszentmihalyi, 1990; Siegel, 2010).

Complex Systems: acknowledge interconnectedness and synergy between different components and recognizes that settings are open and interact with the wider environments; characterized by continuous feedback, adaptation and change; exhibit emergence and unpredictability (modified from Dooris, 2013).

Consciousness: a complex hierarchy of knowledge, attitudes, and worldviews; higher order or reflective consciousness involves self-awareness of oneself. This involves a level of abstraction that includes the ability to hold mental images and formulate values, beliefs, goals, and strategies (modified from Capra, 2002).

Differentiation: a movement towards uniqueness; separating parts and recognizing their distinctiveness as parts; developing one’s own unique traits, maximizing personal skills, and setting individual goals (modified from Csikszentmihalyi, 1990).

Integration: combining parts so that they work together or form a whole; each individual influences/affects the whole; a union with other people (modified from Csikszentmihalyi, 1990).

Ecological, Holistic Systems Approach: reflects the multidimensional (micro/macro) complexity and dynamic involving interrelated social, emotional, spiritual, and physical dimensions of well-being; recognizes the interwoven relationships existing between individuals and their environments; moves from focusing on pathogenesis (disease/illness) towards salutogenesis (health/health creation); draws on research from management, leadership, and organizational theory; adopts a whole systems approach and appreciates the whole person and society; draws on

**Emergence:*** novelty; ongoing creative feedback loops bringing life into organizations by empowering people; increasing flexibility, creativity, and learning potential (modified from Capra, 1982, 1996, 2002).

**Health:** a state of complete physical, mental, social, and spiritual well-being and not merely the absence of disease; a pattern and process of relations rather than a quantitative outcome; a feeling of aliveness (modified from Capra, 1982, 1996; Kickbusch 1989; 1996; WHO, 1946/2006).

*Empowerment* (in Health Promotion): a process through which people gain greater control over decisions and actions affecting their health; processes may be social, cultural, psychological, or political through which people see a closer correspondence between their goals in life and a sense of how to achieve them (modified from Health Promotion on-line course glossary (n.d.)

*Health Promotion:* the process of enabling individuals to increase control over and to improve their health; moves beyond a focus on individual behavior towards a wide range of social, environmental, and cultural interventions and conditions (modified from WHO, 1986).

**Interrelatedness:** to place into mutual or reciprocal relationship (modified from Merriam-Webster, n.d.).

**Knowledge Lens:** a dynamic process for examining the attitudes, frameworks, principles, worldviews, and theories to help test and improve our internal picture of how the world works (modified from Senge, 1990).

**Leadership:** process of influencing thinking, attitudes, and/or activities towards some goal; a capacity in the human community to shape its future; the process of facilitating individual and collective efforts to accomplish shared objectives (modified from Senge 2014; Yukl, 2006).
Distributed/Shared Leadership (synonymous terms): promoting and giving more authority to more people; broadly sharing/distributing influence by providing a range of individuals and collectives with the ability to take action instead of centralizing power and control in the hands of a few who act in the role of a supervisor (modified from Hargreaves & Fink, 2006; Muijs & Harris, 2003; Leithwood, Mascall, & Strauss, 2009; Pearce & Conger, 2003; Spillane, 2006).

Health Promoting Leadership: draws on higher order/levels of distributed and shared leadership; integrates empowerment, authentic sharing of power and control, and meaningful input into decision-making; promotes authenticity, trust, and collaboration; creates an interactive influence process where leadership is broadly distributed and shared across an organization (or a number of organizations); where leaders create and co-create through an ongoing process of developing shared vision, purpose, meaning, and goals (Stanton, 2014).

Learning Culture/Culture of Continuous Learning: an environment where learners continue to recognize priorities, values, and their personal vision for how they want to live and work; where growth and development are an embedded way of thinking, behaving, and working; seeking and being open to feedback; making ongoing adjustments based on ongoing feedback in relation to their values and priorities and how they want to live their life (modified from Argyris & Schon, 1978; Merriam-Webster, n.d.; Senge, 1990; UNESCO, 1996).

Level: referred to in the literature as a layer or stage of development; emergent properties that tend to come into being in a discrete or quantum-like fashion; not meant in a rigid or exclusionary fashion rather an indicator or approximation of differences between simple, complicated, and complex systems (modified from Wilber, 2006).

Pattern: deep, complex ideas, actions, and recurring relationships among ideas and experiences that are present in living systems; concepts of recursive nested levels and recursive looping patterns which provide an effective way to think about ongoing growth and development of individuals and systems (modified from Bateson, 1972; Jackson, 2003).
**Principle:** intrinsic qualities and nature of a system based on specific underlying values, ethics, underlying assumptions, and worldviews in living systems (modified from Capra, 1996, 2006; Merriam-Webster, n.d.).

**Sustainability:** lasting, enduring; systems concept involving a balance to be maintained in space and time and complex interactions in a whole system that maintains itself (modified from Dahl, 2010).

**Synergy:** circumstances in which two or more things work together in a particularly fruitful way to produce an effect greater the sum of their individual effect; can create the emergence of new properties enabling thinking to shift from one level of complexity and consciousness to another (modified from Merriam-Webster, n.d.).

**System Environments:** complex social, emotional, intellectual, spiritual, physical, political, cultural, and organizational conditions that interrelate, act upon, and influence the optimal health, well-being, continuous learning, and sustainability of individuals and systems (Stanton, 2006).

**Tensions and Paradoxes:** ongoing, reinforcing cycles or recursive looping processes which can be contradictory yet interrelated; shifting worldviews and values, divergent perspectives, conflicting demands, and complex interrelationships; influences that hold diversity together and create a constant interaction in living systems (modified from Merriam-Webster, n.d.; Bateson, 1972; Smith & Lewis, 2011).

**Thematic Analysis:** inductive analysis involving discovering recurring ideas, language, beliefs, and categories in the data (modified from Marshall & Rossman, 1999).
## Advance Organizer

<table>
<thead>
<tr>
<th>Thesis Focus</th>
<th>A Health Promoting, Continuous Learning, Sustainable Education System</th>
</tr>
</thead>
</table>
| Basis of the Study | A Conceptual Framework  
Interviews with 8 Key Experts  
My Experience and Research |
| Methodology | A Qualitative Study  
Interviews with 60 Professionals (Diverse Voices) |
| Thematic Analysis and An Ecological Holistic Systems Approach | Thematic Analysis of the Data  
discovering recurring ideas, language, beliefs, and categories in the data  
and  
An Ecological, Holistic Systems Approach to the Data  
an application of the conceptual framework and principles; interviews with 8 key external experts; integrative thinking and reflection |
| Major Findings | • 12 major themes emerging from the three system environments  
• the synergy point  
• leadership as the major enabler  
• one major pattern and three sub-patterns  
• four tensions and paradoxes |
| Other Contributions | • drawing on an ecological, holistic systems approach  
• using a systems approach to research design and methodology  
• using three knowledge lenses to draw on the literature across diverse fields  
• identifying 12 Principles of a Health Promoting, Continuous Learning, Sustainable System |
Preface

Health promotion is a relatively young field/discipline, that is integrative and transdisciplinary in nature and is beginning to utilize an ecological, holistic systems approach to research and knowledge development. This involves thinking and working collaboratively across diverse fields and disciplines such as: public health, ecology, business, nursing, psychology, sociology, education, planning, community development, leadership, organizational and systems change, and epidemiology to name a few. A few researchers in health promotion are beginning to further develop and utilize a systems approach to address complex issues and opportunities related to creating optimal health, well-being, and sustainability at the individual, organizational, and global levels. Health promotion encompasses a broad and optimistic vision for health for all involving the values of:

- Respect for the innate dignity of all people, for cultural identity, for cultural diversity, and for natural resources and the environment; Inclusion and involvement of people in making the decisions that shape their lives and impact upon their health and well-being;
- Equity in health, social and economic outcomes for all people; Accountability and transparency – within governments, organizations and communities; Sustainability;
- Social justice for all people; and Compassion and empowerment. (IUHPE Website, 2014)

Many health promotion professionals working to create this vision and values have focused on what is termed a settings approach to health which involves working across settings to create healthy cities, communities, schools, workplaces, hospitals, and universities (Dooris et al, 1998; Dooris, 2005, 2006; Hancock, 2000; Poland, Krupa, & McCall, 2009). This doctoral thesis builds significantly on local, national and international research and practice in health promoting settings. It also builds on my own professional practice and international research in this area (Stanton, 2005).

To date, in Ontario, the Healthy Schools/Health Promoting Schools movement and provincial programming has largely focused on policies, programs, and curriculum development related to disease prevention and healthy lifestyles. The last few years there has been significant work done in building diverse partnerships across the education and public health sectors.

I feel very privileged to have been able to conduct my research in an Ontario school district through the Ontario Institute for Studies in Education, University of Toronto, both of which are recognized for their progressive and innovative work in public education.
CHAPTER 1: INTRODUCTION

A Health Promoting, Continuous Learning, Sustainable Education System

My research was inspired by my vision of a holistic, health promoting, continuous learning system that has an ecological consciousness and a focus on sustainability. This study takes a ecological, holistic systems approach to examining how to create an education system that has the capacity to promote optimal health, well-being, continuous learning, and sustainability for the adults working in this system and for the system as a whole. This study represents a new and evolving approach to understanding organizational and system environments and their relationship to health, well-being, and sustainability.

By working more closely across diverse sectors and disciplines, particularly with professionals in the education system, we can build on our collective understanding by working together to address large scale and complex systems change in an effort to create healthier, more sustainable individuals, organizations, and global communities.

Setting and Research Questions

The setting for this study was a large education system (school district) in Ontario. This school district was chosen as a system where there was potential to create health, well-being, and sustainability for the professionals in the system (teachers, principals, and district leaders), the organization, and the children, youth, families, communities, and beyond. My major research questions were:

1. Why and how do the top three most influential system environments (leadership, a culture of continuous learning, and interrelatedness of work and life) promote optimal health, well-being, continuous learning, and sustainability for individuals (teachers, principals and supervisory officers) and the school district as a whole?

2. What are the principles, patterns, relationships, and synergies that are integral to creating a health promoting, continuous learning, sustainable system?
3. Is there one or possibly two system environment(s) that might be a major enabler(s) for significant systems change towards creating a health promoting, continuous learning, sustainable system?

Rationale

In the health promotion field we are coming to a deeper and more complex understanding of what creates health and how it can be created in large organizations and systems (WHO, 1986). Health is determined by a complex interplay of environmental, organizational, and personal factors. There is a shift “from the deficit model of disease to the health potentials inherent in the social and institutional settings of everyday life” (Kickbusch, 1996, p. 5). Human health is strongly linked to the health of our organizations, communities, and our ecosystem (Hancock, 1993; Milz, 1986). We need to deepen our understanding that human organizations are alive and function as living systems.

Health is created and lived by people within the settings of their everyday life; where they live, work, learn, and love. Health is created by caring for oneself and others, by being able to make decisions and have control over one’s life circumstances, and by ensuring that the society one lives in creates conditions that allow the attainment of health by all its members. (WHO, 1986)

Researchers, policymakers, and practitioners have come to recognize that by working together across systems, particularly in health and education that we can build on our strengths and capacities. At the same time we can synergize our resources to address large scale and complex challenges.

Focus of This Research

This research focused specifically on investigating the top three most influential system environments that can potentially promote health, well-being, continuous learning, and sustainability for the professional staff working in this system (teachers, principals, and district leaders) and for the school district as a whole. An emphasis on these system environments may synergize and enhance the capacity of a school district to reach its goals related to student achievement, continuous learning, and improvement on a sustainable basis.
Eight preliminary interviews were completed with superintendents, principals, and teachers in 2006 as part of a doctoral course with Professor Michael Fullan entitled *Tri-Level Systems Change*. From these, the following top three most influential system environments were identified that have the potential to promote health, well-being, continuous learning, and sustainability for the individual and organization: (a) forms and patterns of leadership that are empowering and which share power and control; (b) a culture of continuous learning; and (c) interrelatedness of work and life. Subsequently these system environments were key foci for this study.

**Building on the Strengths of the Education and Health Promotion Fields**

Theorists, researchers, and practitioners in the education system have been working to create system environments that promote effective and high performing schools that are able to reach their goals and objectives. Their work has focused on many key aspects of systems change. These include: (a) creating cultures of collaboration, continuous learning, and improvement; (b) drawing on new theories and approaches to leadership including distributed, shared, emergent, and sustainable leadership; (c) creating communities of practice and inquiry; (d) developing high performing teams; and (e) developing networks for learning and research (Day & Leithwood, 2007; DuFour & Eaker, 1998; Fullan, 2001, 2008; Hargreaves, 2003; Hargreaves & Fink, 2006; Johnston & Caldwell, 2001; Lambert, 2003; Lazotte, 2002; Leithwood, Aitken, & Jantzi, 2001; Leithwood, Jantzi, & Steinbach, 1999; Leithood & Seashore Louis, 1998; Leithwood, Mascall, & Strauss, 2009; Marzano, Waters, & McNulty, 2005; Mascall, Rolheiser, Wallace, Anderson, & Fullan, 2005; Morgan, 2006; Sergiovanni, 1994; Spillane, 2006).

In the business and organizational change fields there have been similar debates and discussions about how to create system environments that can promote high performing organizations and high levels of productivity. These include organizations that can adapt, continuously learn, and be productive in increasingly turbulent environments. Many forms of

---

leadership have been described and studied. These include the principles and practices of learning organizations; emergent forms of shared, collaborative, and team leadership; and a growing appreciation of systems thinking and change (de Geus, 2002; Morgan 1986/2006; Pearce & Conger, 2003; Senge, 1990; Senge et al., 2000; Senge, Kleiner, Roberts, Ross, & Smith, 1994; Senge, Roberts, Ross, Smith, Roth, & Kleiner, 1999; Yukl, 2006).

This research is an important step forward in developing a richer understanding of how health promotion and the concept of health creation can further enhance and strengthen the important research and practice that is already being carried out in the education system. This research also identifies new connections and interrelationships between health, well-being, continuous learning, and sustainability in complex living systems.

The education and health promotion fields have a common and shared vision of creating a society where all people, particularly our children and youth, have access to the highest quality of health and lifelong education; continue to develop to their greatest potential; and contribute to an evolving, dynamic, and diverse sustainable world community.

In this study, I chose to focus on the health, well-being, and sustainability of the adults (teachers, principals, and district leaders) in this school district and not to focus directly on students or student achievement. This decision was based partly on the premise that a school system that has a thriving culture among the professionals who populate it will be much more likely to create an environment that promotes student achievement and well-being (Fullan, 2001; Hopkins, 2001; Silins & Mulford, 2002). It was also a decision based on the limitations imposed by the nature of a study of this size. I believe that a healthy workplace culture and environment is critical in ensuring the long term sustainability of the education system.

**My Ontology as a Researcher and Educator**

As a professional, I have 30 years of work experience as a community health nurse, senior health promotion manager, consultant in health promotion, and teacher of children, adults, and graduate students. I am committed to an inquiry approach to developing a deeper understanding of the complex and vital relationships among health, learning, and sustainability from a systems perspective. I learn though a process of continuous reflection in which I embrace complexity, ask questions, and work to appreciate diverse and dynamic processes and patterns.
This approach allows me to uncover conflicting data, tensions, and interpretations in complex systems.

As a continuous learner with two undergraduate degrees (nursing and education), and two graduate degrees (environmental studies and business administration), I appreciate the synergistic relationships between health, well-being, continuous learning, and sustainability.

As an educator and experiential learner, I believe it is important to encourage and support people to learn and grow at a deep level. For me, this involves periods of deep reflection, meditation, and prayer. It also involves setting time aside to develop my spiritual life – that is, deeper connections to my inner self, family, friends, animals, nature, and the Divine.

As a researcher, I have a strong affinity for participatory approaches and qualitative research that allows for diverse ways of knowing. I believe that it is important to access expert knowledge and tap into sources of inner knowledge and wisdom that run deeply within our intuitive nature and soul.

I like to engage in inquiry. It is my nature to be curious, to ask why, and to think about what is possible. I see the research process as part of a profound systemic change process whereby participants examine their own thinking, feelings, experiences, perceptions, worldviews, intuitive understandings, inner spirit and soul.

In this study and my work as an educator, I take a complex understandings and thinking orientation to curriculum (Bloom, 2006) which is based on Elliot Eisner’s (1979) Five Orientations to Curriculum. Based on Eisner’s work, I consider myself oriented towards personal relevance, social reconstruction, and the development of cognitive processes.

My orientation to curriculum is reflected in the conceptual framework (Figure 1, p. 7) developed for this study and is consistent with health promotion values which I regard deeply: health for all, education for all, sharing of power and control, social justice and equity, the reduction of power differentials, ecological sensitivity, peace, and the enrichment and sustainability of individual, community, and planetary life.

I also believe strongly in the importance of using an ecological, holistic systems approach to research. This allows the researcher to interact with the participants and it encourages deep listening and reflection by both the researcher and the participants. It also encourages a strong
sense of voice and ensures each unique voice is presented in the findings as accurately as possible through the use of quotations. As a researcher, this approach also involves extensive time to reflect, contemplate, and ensure that I have consciously considered the diverse perspectives and interpretations of the data.

I utilize an iterative and rigorous process of reflection in my work and my research design. Throughout my research process, I discussed the key findings, principles, and patterns with a number of external system theorists and thinkers. This created an iterative process of inquiry and reflection that I value so much in my own life and learning. This approach involved identifying patterns and key findings and discussing these with a small number of internal system leaders working in this district. This approach also provided a broader contextual awareness and appreciation of the history and culture of the school district which was essential to understanding the research patterns and key findings. This ensured that participants could provide additional viewpoints, perspectives, and diverse ways of viewing the patterns that seemed inconsistent, incongruent, or confusing to the researcher. These disconnects may be related to cultural issues, history, or outside influences about which the researcher may not have been aware. I tried to integrate a reflective, double-loop learning process into the research design, while appreciating and tapping into many diverse perspectives, values, and worldviews.

**Conceptual Framework**

The conceptual framework (Figure 1, p. 7) developed for this study had several iterations during the course of the initial stages of the research process, and was informed and shaped by: (a) literature reviews undertaken in doctoral studies coursework at OISE; (b) key informant interviews with a small number of professionals and researchers in health promotion, education, and systems change theory; (c) research for my MES degree (1994) and MBA degree (2004); and (d) 30 years of professional experience in health, health promotion, education, adult learning, organizational change, community development, planning, and evaluation. The conceptual framework consists of a focal point consisting of eight system environments, three of which (bolded in the visual) were central to this thesis. These system environments were analyzed through three knowledge lenses and underpinned by a group of principles that was initially nine and grew to twelve. Through the ecological, holistic systems approach I was consistently conscious that as open systems, these environments were always interconnected.
both internally and externally. The conceptual framework acts as an important anchor in appreciating the complexity of this thesis, especially the role the principles play in uniting the ideas of the knowledge lenses and the system environments. It is also the framework around which the literature review was conducted and reported in this thesis.

**Figure 1**

**Conceptual Framework**

The System Environments (centre circle – lighter blue) is the focus. The system environments were looked at through three knowledge lenses (darker blue) overlooking the system environments. The 12 Principles of a Health Promoting, Continuous Learning, Sustainable System and the Open Systems Interconnected with Internal/External Environments (gray) underpin and are embedded in the framework for this study.
Eight System Environments

System environments are defined as complex social, emotional, intellectual, spiritual, physical, cultural, political, and organizational conditions that interrelate, act upon, and influence the optimal health, well-being, continuous learning, and sustainability of individuals within a system, and the system as a whole (Stanton, 2008).

It was my hypothesis that these eight system environments synergize, interrelate, and influence health, well-being, continuous learning, and sustainability at the individual and organizational levels, with each system environment being an integral part of the whole. This hypothesis led to several questions: Is it possible to drill down and identify principles and patterns of the whole system? Are there common principles and patterns that exist in each system environment and across all three system environments? Is one system environment more influential than the others in synergizing this systems process?

In developing this aspect of my conceptual framework, I drew on empirical studies in the literature that support this inquiry, as well as informal interviews (referred to as preliminary interviews in this study). I completed these preliminary interviews with eight key informants in one large Ontario education system (3 principals, 3 supervisory officers, 2 teachers). A brief summary of the results of these interviews and an extensive literature review in relation to the top three system environments is included in Chapter 2: Literature Review.

The eight preliminary interviews were carried out as part of a course completed in my doctoral program: Tri-Level System Change (Fullan, 2007). The major interview question was: What are the system environments that promote optimal health, well-being, continuous learning, and sustainability for you as an individual and for the organization as a whole? The preliminary interviews (60–75 minutes in length) were recorded and transcribed. The data were analyzed for key themes and the top three system environments that became a key focus for this study were identified: Leadership, a Culture of Continuous Learning, and Interrelatedness of Work and Life. The five other important system environments outlined in this framework are not included in this thesis, but are important and integral to my ongoing research.
Three Knowledge Lenses

For this study a knowledge lens refers to knowledge and appreciation. A knowledge lens provides a dynamic process for examining the values, principles, worldviews, underlying assumptions, theories, and frameworks that underlie a system. These three different knowledge lenses help us in “surfacing, testing, and improving our internal pictures of how the world works” (Senge, 1990, p. 175).

The three knowledge lenses in this study are Health and Health Promoting Systems; Continuous Learning Systems; and Living Systems, Change, and Sustainability. These three knowledge lenses are based on four areas of knowledge: (a) health promotion: Best (personal communication, October 2008), Norman (personal communication, October, 2008); (b) business/organizational change: Morgan (personal communication, October 2008); (c) learning organizations: Archer (personal communication, July 2008); D’Arce (personal communication, July 2009); Smith (personal communication, January 2008), and (d) living/sustainable systems: Capra (personal communication, March 2008, August 2008; November 2009; Wheatley (personal communication, March 2008, November 2009); and Eoyang (personal communication, February 2009, May 2009, July 2009). Conversations with key leaders in these areas reinforced my interest in using knowledge lenses in my conceptual framework.

An Ecological, Holistic Systems Approach

An ecological, holistic systems approach (a) recognizes that health is multi-layered and multi-component in nature (Stokols, Allen, & Bellingham, 1996; Stokols, Pelletier & Fielding, 1996); (b) is concerned with what creates health and makes people flourish (Dooris, 2013); (c) draws on insights from organizational theory and complex systems theory (Dooris, 2013); and (d) acknowledges the interconnectedness and synergy among different components of a system in an attempt to embed and integrate health, well-being, and sustainability into organizational settings (modified from Dooris, 2013). This approach also appreciates that both individuals and organization have to continuously learn, adapt, generate, and co-create their own reality and “where new and expansive patterns of thinking are nurtured” (Senge, 1990, p. 3). This approach also recognizes that for a community or system to be healthy it must be sustainable (Hancock, 2000; 2011).
Principles of a Health Promoting, Continuous Learning, Sustainable System

In this study a principle is defined as the intrinsic qualities and nature of a system. These intrinsic qualities are based on specific underlying values, ethics, assumptions, and worldviews and are embedded in the conceptual framework for this study. Through my career, and in the iterative process of this study, I developed the Principles of a Health Promoting Continuous Learning Sustainable System (Figure 1, p. 7) that are foundational to this study and have guided my work and thinking for more than 20 years. I believe that they are fundamental to all healthy living sustainable systems. Prior to this current study I identified nine principles and these were later re-conceptualized into the 12 Principles, as three new principles emerged from the data in this thesis. I discussed these principles at length with a small number of key experts in living systems theory, in particular with Fritjof Capra, Ph.D. physicist and ecologist.

Open Systems: Interconnectedness of Internal and External Environments

All open systems are themselves part of larger open systems (economic, political, social, and environmental). Systems include individuals, organizations, communities, and ecosystems. My conceptual framework reminds us that we cannot be healthy, generative individuals and organizations unless we appreciate and pay particular attention to our interconnectedness with communities, families, society, and our planet. It is therefore essential to pay attention to the broader determinants of health including the social, economic, political, and physical environments that significantly influence our health, well-being, and sustainability as individuals, as organizations, and as a society. As with all living systems “we are inseparable parts of the cosmos in which we are embedded” (Capra, 1982, p. 270).
CHAPTER 2: LITERATURE REVIEW

The literature review for this study was organized around and examined the following four areas:

- three knowledge lenses;
- three influential system environments;
- 12 Principles of a Health Promoting, Continuous Learning, Sustainable System; and
- applicable systems and complexity theory and research approaches.

After identifying the key findings in this study, I returned to the literature and examined some additional literature in relation to System Environment 3: Interrelatedness of Work and Life; and Meaning, Purpose, and Consciousness. This literature is integrated into Chapters 6 and 7 where I discuss the findings emerging from this study.

Three Knowledge Lenses

Knowledge Lens 1: Health and Health Promoting Systems

Health promotion is a relatively young field. As an emerging knowledge area, there is a body of literature involving theoretical discussion papers focusing on health promoting systems and some empirical research (Chu & Forester, 1992; Chu, Breucker, Harris, Stitzel, Gan, Gu, & Dwyer, 2000; Dooris, 2004, 2005, 2006, 2013; Dooris, Dowding, Thompson, & Wynne, 1998; Green, 2006; Hancock, 1986; Heward, Hutchins, & Keleher, 2007; Kickbusch, 1996, 2003; Milz, 1986; Parsons, 1999; Patton, Sengupta, & Hassan, 2005).

In this study, it is important to understand health and health promoting systems as an ecological, holistic systems approach involving an organizational and systems change process that has the potential to promote optimal health, well-being, and sustainability. Our understanding of health has evolved over the last 30 years from a paradigm where health is considered to be the absence of disease to a broader understanding of health as holistic, ecological and created in our everyday settings where we live, work, learn, and play (WHO, 1986).
Health promotion is the process of enabling individuals and communities to increase control over the determinants of health and thereby improve their health (WHO, 1986). Health promotion values include: health for all; social justice and equity (fair resource distribution, respect for diversity); power sharing (reduction of power differentials, empowerment, capacity building, and participation in decision-making); ecological respect and sensitivity; and enrichment of individual and community life (authenticity, creativity, critical reflection, continuous learning, meaningfulness, and social connectedness) (Centre for Health Promotion Working Group, University of Toronto, 2000).

An ecological, holistic systems approach to health understands health to be determined by a complex interplay of environmental, organizational, and personal factors. It is holistic, moving from a focus on individuals, risk factors, and disease to a view of health more concerned with developing supportive and health promoting environments and contexts (Dooris, 2013; Hancock & Perkins, 1985²; Hancock, 1993; Kickbusch, 1989; St. Leger, 2003). This approach to health is dynamic and interconnected. It is characterized by integration, interrelationships, and interdependencies (Capra, 1982, 1996, 2002; French & Bell, 1999; Senge, 1990; Senge et al., 1999; Senge et al., 2000; Skyttner, 2001; Westley et al., 2006; Wheatley, 1999, 2005). It places a primary focus on a systems change process that addresses the individual, organization, and broader communities within which we are embedded. Schools can be viewed as social complex adaptive systems (Keshavarz et al., 2010), that have the potential to be healthy and sustainable settings (Dooris, 2013; Hancock, 1993, 2000, 2011; Poland, Green, & Rootman, 2001). This approach often draws on a systems approach (Best, 2011; Best, Stokols, Green, Leischow, Holmes, & Buchholz, 2003; Best, Clark, Leischow, & Trochim, 2007; Best, Terpstra, Moor, Riley, & Glasgow, 2009; Naaldenberg, 2009; Norman, 2009, 2011; Riley & Best, 2012).

**Building on Previous Research in Healthy Workplaces**

The vision of the health promoting organization evolved out of the 1980’s healthy lifestyles and wellness programs in the workplace (Chu & Forester, 1992). Programs were short-

² Appendix A is an important visual framing *The Mandala of Health: A Model of Human Ecosystem* which formed a foundation for some of the work being done now in ecological, holistic systems approach to health, well-being, and sustainability.
term, focusing on health maintenance, disease prevention, stress reduction, absenteeism, and accidents.

At the same time, researchers from diverse fields began to examine organizational conditions related to performance (motivation, leadership styles, job satisfaction, social support, empowerment, self-efficacy, sense of coherence, trust, and self-managed teams). The major focus was increasing productivity, achieving organizational goals, and decreasing costs (Danna & Griffin, 1999; Grawitch, Gottschalk, & Munz, 2006; Lowe, 2010; Polanyi et al., 1998; Sparks, Faragher, & Cooper, 2001).

**Health as an Organizational and Systems Change Process**

More recently researchers have started to identify the influence and role of organizations and systems change in the promotion of optimal health, well-being, and sustainability in large systems. We have come to recognize that organizational and systems change processes can be health promoting and can create conditions for health or damage health (Chu et al., 2000; Dooris, 2006, 2013; Eriksson, 2011; Jensen, Simovska, Larsen, & Holm, 2005; Kickbusch, 1996; Lowe, 2004, 2014; Lowe & Schellenberg, 2001; Nyberg, 2009; Polanyi et al., 1998; Shain, & Kramer, 2004; Skinner, 2002; Stokols, Grzywacz, McMahan, & Phillips, 2003; Svedberg, 2005).

We are beginning to think about how we can develop a more holistic and emergent understanding of health that includes organizational and system environments in an effort to explore how system environments can learn, adapt, and generate new and emergent forms of leadership, innovation, and self-organization.

**Health as Settings – Healthy Cities, Communities, Schools, and Workplaces**

An important focus of healthy settings and systems work originated in the settings approach advocated through the Ottawa Charter for Health Promotion (WHO, 1986) which promoted creating supportive environments for health.

Health cannot be separated from other goals. The inextricable links between people and their environment constitutes the basis for a socio-ecological approach to health. The overall guiding principle for the world, nations, regions, and communities alike, is the need to encourage reciprocal maintenance – to take care of each other, our communities, and our natural environment…. Work and leisure should be a source of health for people. The way a society organizes work should
help create a healthy society. Health promotion generates living and working conditions that are safe, stimulating, satisfying, and enjoyable. (WHO, 1986, p. 2)

Hancock (1993) in his work, *Health, Human Development and the Community Ecosystem: Three Ecological Models*, explains how “reference to an ecological understanding, is taken to mean understanding ‘the pattern that connects’” (Bateson, 1975 as cited in Hancock, 1993, p. 41). Hancock encourages us to develop different models that are not to be “viewed as static entities but as a basis for a dynamic process” (p. 46). A Healthy Community process requires “a new approach to managing communities, one based upon new styles, new structures, and a focus upon inclusive processes” (Tsouros, 1990 as cited in Hancock, p. 46).

We believe that the task of creating wholeness…can only be dealt with as a *process*….If these models help create a new understanding of the ‘wholeness’ of health, human development and communities, and if they contribute to the development of new, holistic processes, they will have served their purpose.” (Hancock, 1993, p. 46)

The ongoing work in healthy cities, schools, workplaces, and communities is based on much of this thinking around how we create processes and models to help us develop a deeper understanding and appreciation of the wholeness of health, human development, and communities within various settings and systems.

**Knowledge Lens 2: Continuous Learning Systems**

**Understanding the Underlying Concepts and Frameworks of a Learning Organization**

The underpinnings of a learning organization were explored in the 1970’s and 1980’s by pioneers of organizational change, action learning, management in turbulent environments, and open systems theory. A number of important concepts and frameworks emerged.

Trist played a key role in moving the understanding of organizations as machines to organizations as systems (Morgan, 2006). He introduced new concepts such as autonomous work groups, quality of work life approach, and action research methods (Wright & Morley, 1989).
Groundbreaking papers on single and double-loop learning (Argyris, 1977; Argyris & Schön, 1978; Argyris, Putnam, & McLain Smith, 1985) and espoused theories versus actual theories in-use were also underpinnings of the learning organization (Senge, 1990).

Senge (1990) synthesized five component technologies (disciplines) of the learning organization: systems thinking, personal mastery, mental models, shared vision, and team learning. He talks about how the evolution of learning communities promotes distributed leadership.

“*Learning* is a preparation for life and also a part of life…. *Deep and broad learning*...is therefore learning for meaning, learning for understanding, learning for life. It is learning that engages…intellectually, socially, emotionally, and spiritually” (Hargreaves & Fink, 2006, pp. 32-33, [italics added]).

The UNESCO commission proposed four fundamental types of learning: learning to know; learning to do; learning to be; and learning to live together (UNESCO, 1996).

Among the key terms that developed are organizational learning and a learning organization.

*Organizational learning* represents the enhanced intellectual and productive capability gained through commitment to and opportunities for continuous improvement across the organization” (Marquardt, 2002, p. 25). It is the intentional use of learning processes to continuously transform the organization.

*A learning organization* is “where people continually expand their capacity to create the results they truly desire; where new and expansive patterns of thinking are nurtured; where collective aspiration is set free; and where people are continually learning how to learn together” (Senge, 1990, p. 3).

Historically learning is often viewed as a tool, directed towards increased productivity and financial gains, with minimal consideration given to issues of employee well-being (de Geus, 2002; Johnston & Caldwell, 2001; Lowe, 2003; Saint-Onge & Armstrong, 2004).
Learning Organization as an Advanced Form of Organizational Development

Increasingly, researchers argue that a learning organization is an advanced form of organizational development (Johnston, 1997; Johnston & Caldwell, 2001). Voogt (as discussed in Leithwood & Seashore Louis, 1998) argues organizational learning can provide leverage for school development. Central to these definitions is the concept of learning organizations as both organizational learning and the related concepts of knowledge (Argyris & Schön, 1978; Schein, 1993; Senge, 1990). We may be able to view this as an ecological, holistic approach to promoting health, well-being, and continuous learning for individuals and for large systems (Stokols, 1992, 1996; Stokols et al., 2003; Stokols, Allen, & Bellingham, 1996; Stokols, Pelletier & Fielding, 1996).

Knowledge Lens 3: Knowledge and Appreciation of Living Systems, Change, and Sustainability

This is the lens that acts as the integrator of all three lenses. This lens requires an extensive understanding of living systems, systems change, and sustainability.

I had opportunities to take courses with and learn from systems theorists, thinkers and practitioners at OISE, University of Toronto with very diverse backgrounds and perspectives including: Stephen Anderson, Mary Anne Archer, Michael Fullan, Ken Leithwood, Blair Mascall, Jack Miller, and Carol Rolheiser. The opportunity to learn from professors with diverse expertise in qualitative (Ardra Cole) and mixed methodologies (Eunice Jang) was extremely helpful in thinking about and appreciating integrative, holistic, complex systems and change. My previous studies/courses also contributed to my understanding of the complexity of systems change.

A complete literature review related to the principles of living sustainable systems is included later in the principles section in this chapter.

Top Three Most Influential System Environments

I decided to focus on the top three most influential system environments outlined in the Conceptual Framework (Figure 1, p. 7). I made this decision based on eight preliminary interviews that I conducted in one large school district as this current study was being
conceptualized. The following highlights some of the key findings from these preliminary interviews and provides a summary of the evidence from the literature related to each of the three system environments.

**System Environment 1: Shared and Distributed Leadership**

**Observations From Preliminary Interviews**

Eight key informants in the preliminary interviews explained that empowering patterns of shared and distributed leadership had the most significant potential to promote optimal health and well-being by increasing (a) their sense of control and influence; (b) their opportunities to participate in meaningful decision-making; (c) their ability to develop knowledge and capacities in key areas relevant to work; (d) their ability to work and learn in collaborative environments; and e) their sense of efficacy, job satisfaction, and accomplishment.

Key informants explained that specific forms or patterns of shared and distributed leadership promoted the health and well-being of the organization by encouraging people to learn continuously; by becoming more flexible and adaptive; by building collaborative capacities; by appreciating diverse strengths of colleagues; by creating new feedback processes for continuously sharing information, knowledge, and ideas; by receiving ongoing emotional and social support from peers; and by contributing to the organization’s shared vision and goals.

One key informant identified the need for an adaptive and generative learning approach that involved feedback loops throughout the system. This highlights an important tension in the literature and education field existing between positional and shared leadership. While both are essential in healthy and high performing organizations, they have different roles to play in ensuring ongoing and continuous learning, sharing power and control, and creating new knowledge. This is an important area that I considered in designing this current research study.

Another key informant explained that taking an empowering approach to sharing leadership with teachers throughout the school promoted an environment of increased trust, openness, and willingness to take risks and be creative.
Evidence From the Literature

A number of empirical studies identify characteristics and qualities associated with shared and distributed leadership that may contribute to promoting optimal health, well-being, and sustainability at the individual and organizational levels:

1. authentic sharing of power, control, and influence (increased empowerment, trust, optimism) (Arneson & Ekberg, 2005; Hansson & Bjorkman, 2005; Mikkelsen, Saksvik, Eriksen, & Ursin, 1999; Nutbeam, 1998; WHO, 1986);

2. increased participation in meaningful decision-making (increased feedback loops; opportunities to influence) (Arnstein, 1969; Eriksson, 2011; Lowe & Schellenberg, 2001; Lowe, Schellenberg, & Shannon 2003; Mikkelsen et al., 1999; Nutbeam, 1998; Shain & Survali, 2001);

3. a culture of continuous learning (adaptability, generativity, creativity, efficacy; sense of coherence; diversity; access to resources) (Antonovsky, 1987, 1996; Bandura, 1997; Cannon & Edmonson, 2004; Kruze & Seashore Louis, 1999); Leithwood & Seashore Louis, 1998; Leithwood et al., 1998; Leithwood et al, 2001; Marks & Louis, 1999; Mikkelsen et al., 1999; Nussbaum, 2002; RNAO, 2006, 2013); and


Empowerment, control, and distribution of power and responsibility

Empirical studies strongly support the role of empowerment, control, and participation in decision-making and its positive impact on the health and well-being of individuals (Sparks et al., 2001; Wallerstein, 2006). These studies indicate that people who perceive having high levels
of control have a greater sense of job satisfaction, motivation, and organizational loyalty (Fulford & Enz, 1995; Mullins & Peacock, 1991). The degree to which power is distributed in an organization is referred to as structural empowerment (Kanter, 1983). The most common factors associated with workplace dissatisfaction and ill-health are work demands, lack of control over work, and lack of supervisor support. Empirical studies indicate that these three factors are highly associated with sickness, absence, and injury (Theorell et al., 1999).

Recent literature on change and school improvement suggests that when teachers are empowered in areas of importance to them and when leadership is distributed throughout the school, student learning outcomes are more likely to improve (Fullan, 2001; Hopkins, 2001; Silins & Mulford, 2002).

**Social support**

Another important aspect of health, well-being, and sustainability in the workplace is social support. Helpful social interactions on the job with co-workers and supervisors have been shown to reduce the effect of job strain on health (Karasek & Theorell, 1990). A positive environment, supportive supervision, and transformative leadership have been associated with higher levels of satisfaction, empowerment, health, and well-being (Beaudoin & Edgar, 2003; Boumans & Landeweed, 1993; Kangas et al., 1999; Landeweed & Boumans, 1994; Morrison, Jones, & Fuller, 1997).

Muijs and Harris (2003) indicate that working in a more collaborative and supportive work environment is likely to increase health and well-being. Distributed leadership ensures that professional development is integral to the system. This also contributes to overall sustainability of leadership. Overlapping areas of expertise and collaborative ways of working create a powerful and sustainable learning environment. Empowering forms of distributed leadership are more likely to result in long term system capacity building, adaptability, and ongoing generativity through members sharing expertise, knowledge, and working collaboratively to address complex issues.

**Leadership, organization and health at work**

One empirical study looked specifically at the role of organizations in influencing health and well-being (Ericksson et al., 2008). *Leadership, Organization and Health at Work: A Case*
Study analyzed the leadership and organization in a company actively developing a culture and a structure of organization that promoted a high degree of control over their work. The organization had a structure of self-managed teams and an organizational culture that helped employees to develop their skills and influence their work situation.

Key findings indicated that the leadership and company organization were generally conducive to the health of the employees. However, the culture of personal responsibility, the structure of self-managed teams, and the need for good relations between employees suited only those who were able to manage the demands of the company and adapt to this particular environment and culture. When extensive responsibilities are shared with the employees in an organization, the necessary knowledge and skills must exist in order for employees to experience success in accomplishing their tasks (Erickson et al., 2008).

An important learning from Erickson’s study is that shared and distributed leadership in an organization has to be developed and supported along with a culture of continuous learning and collaboration. The researchers found that people needed both the collaborative capacity and the learning capacity in order to successfully achieve their goals in a shared leadership environment (Erickson et al., 2008).

An important question raised in Erickson’s study is one of ethics. Was the organization really concerned about its health promoting capacity or was the motive one of social control of employees to work harder to fulfill the goals of the organization? This important ethical question has been raised in the literature in relation to empowerment, distributed, and shared leadership, and the development of learning organizations. Is the real intent of management to promote the health of the employees or to increase productivity, reduce costs, and achieve organizational goals (Harris, 2005; Shain, 2004)?

Leithwood et al. (2009) raise a similar point about how distributed leadership is used in organizations. “Such leadership may simply be used as a subtle strategy for inculcating among staff the values and goals of more powerful members of the organization” (p. 4). Harris (2008) also warns us: “It could just be another way of getting teachers to do more within the palatable discourse of collaboration….The potential for distributed leadership to be misused should not be underestimated or ignored” (pp. 156–157).
Johnston and Caldwell (2001) expressed similar findings in their study:

Leadership that seeks to influence employees’ view of the world towards a particular compromise or consensus may be seen as manipulative… and efforts to generate a shared view may be perceived as introducing a new level of control over the organization’s members. (p. 98)

**System Environment 2: Culture of Continuous Learning**

The second system environment identified through my preliminary interviews as contributing to the optimal health, well-being, and sustainability of individuals and this organization was a culture of continuous learning. This system environment is closely intertwined with the first system environment and has many interconnections with the other system environments.

**Observations From the Preliminary Interviews**

Key informants from my preliminary interviews that guided this study indicated that opportunities to continually learn, participate in leadership development, attend courses, build learning networks outside the organization, and be involved in specific system-wide collaborative learning initiatives contributed significantly to both personal and organizational health, well-being, and sustainability. Teachers and principals believed that this learning culture was enabling them to improve their teaching, collaboration, and leadership skills; increase their self and collective efficacy; and develop their capacity to adapt and change.

Participants explained how continuous learning drew on individual strengths and capacities; built on internal strengths of creativity, knowledge, and wisdom; and provided diverse experiences. This shared learning occurred in formal and emergent structures such as networks, communities of practice, and informal communities. Various emergent learning structures were also highlighted as strengthening the overall capacity of the organization to take risks, learn from mistakes, and reach its goals.

**Evidence From the Literature**

The literature identifies important aspects of a culture of continuous learning that positively influence the health, well-being, and sustainability of individuals and the organization
as a whole. Through continuous learning as individuals, groups, networks, and communities, we are able to:

1. develop increased capacity to adapt to change and generate new learning (adaptability, generativity, diversity, flow, resilience, efficacy) (Antonovsky, 1987, 1996; Bandura, 1997; Conger & Kanungo, 1998; Kanter, 1983; Leithwood & Aitken, 1995; Leithwood et al, 1998; Leithwood et al, 2001; Marks & Louis, 1999; Mikkelsen 1999; RNAO, 2006);

2. take risks, be creative, and learn from mistakes (risk taking, double-loop learning, creativity, self-efficacy, diversity) (Argyris, 1993; Argyris & Schön, 1978; Argyris et al., 1985; Cannon & Edmonson, 2004; Leithwood et al., 1998; Senge, 1990);

3. feel an increased sense of personal control over our lives (sense of empowerment, sharing of power/control, resilience) (Arneson & Ekberg, 2005; Hansson & Bjorkman, 2005; Wallerstein, 2006; WHO, 1986);

4. feel a sense of meaning, purpose, and connectedness with colleagues and the broader world environment (coherence, meaning, connectedness, networks, interdependence, flow) (Antonovsky, 1979, 1987, 1996; H. Antonovsky & Sagy, 2001; Carver & Scheier, 2002; Feldt, 1997; Christakis & Fowler, 2009; Flannery & Flannery, 1990; Gana, 2001; Scheier & Carver, 2001); and

5. access resources to address complex issues and concerns in personal and organizational lives (access to resources, social/emotional support, manageability; social justice/equity) (Antonovsky, 1996; Arneson & Ekberg, 2005; Haglund & Small, 1996; Lowe, 2004; Lowe et al, 2003; Shain & Survali, 2001).

**Learning as a Health Promoting Process**

According to the Canadian Council on Learning, Health and Learning Knowledge Centre, the importance of the health-learning connection is evident in several ways: (a) health status affects the capacity to learn; (b) educational attainment affects health status; and (c) purposeful combinations of health and learning interventions can influence short and long term health status (WHO, 1997).
The positive association between education and health is well established. The well-educated have better health than the poorly educated, as indicated by high levels of self-reported health and physical functioning and low levels of morbidity, mortality, and disability (Feldman, Makue, Kleinman, & Cornoni-Huntley, 1989; Guralnik, Fillenbaum, & Branch, 1993; Kaplan, Haan, & Syme, 1987; Syme & Berkman 1986).

Learning is a health promoting process (Antonovsky, 1979, 1987; Gana, 2000; Kivimaki, Kalimo, & Toppinen, 1998; Nussbaum, 2002). Educational attainment increases economic resources (income and/or employment), social psychological resources (social support), and psychosocial factors (personal control). “To the extent that education increases individuals’ sense of power over their own lives, this may have a direct effect on stress levels and individual health. There is evidence for each stage of this process” (Feinstein, 2002, p. 9). It also increases healthy lifestyle resources (exercise, moderate alcohol consumption, and the avoidance of smoking) (Ross & Wu 1996; Williams 1990).

One of the most important health promoting aspects of learning is our ability to learn at a deep level to increase our capacity for double-loop (generative) learning, and to develop an understanding of our own mental models, hidden assumptions, and worldviews. Stimulation of new ideas, creativity, and our ability to address complex issues can also be considered health promoting for individuals and organizations. This approach to learning has been identified in Senge’s (1999) mental models; in Leithwood et al’s (1999) intellectual stimulation practices; in Argyris’ (1977) double-loop learning; and in Torbert’s (2004) action-logics. Learning can also contribute to our sense of coherence, efficacy (self- and collective) and sense of manageability of our resources (Antonovsky, 1979).

In Senge’s work focusing on learning as a spiritual and ecological process (Senge, Scharmer, Jaworski, & Flowers, 2004), we are beginning to see that health promoting systems, learning systems, and living sustainable systems are coming to more deeply appreciate the spiritual, ecological, and global well-being and sustainability of individuals, organizations, communities, and the planet.
**Organizational Learning**

In the education field, there are many empirical studies that highlight important aspects of continuous learning for the whole organization.

Silins and Mulford (2004) examined learning and leadership practices and processes that foster organizational learning in high schools, in particular the relationship of teacher leadership to organizational learning and student outcomes. This study used data collected from surveys of teachers and students carried out for a larger study funded by the Australian Research Council over 5 years (1997-2001). In the first phase, surveys were completed by 2,503 teachers and their principals. In the second phase, 3,500 surveys were completed by year ten students.

The findings indicate that high schools operating as learning organizations (a) developed a trusting and collaborative climate where teachers experiment and take initiative; (b) had structures and processes that existed to encourage staff to participate in all aspects of the school’s functioning, including decision-making; (c) had a staff that shared a sense of direction and took into account the wider community; (d) provided feedback and opportunities to improve knowledge and skills; and (e) were proactive, not reactive, to their changing environment because they were oriented towards learning and renewal.

High schools that operated as learning organizations were led by principals whose practices reflect the six dimensions defining transformational leadership. They (a) involved all staff in setting school priorities; (b) built a shared sense of purpose; (c) promoted a culture of caring, trust, and respect; (d) established structures that support shared decision-making/distributed leadership; (e) modeled reflective practice; and (f) provided individualized support to enable staff to learn and lead.

Johnston and Caldwell (2001) in their study *Leadership and Organizational Learning in the Quest for World Class Schools* identified a number of opposing tensions that also need to be carefully considered in developing schools as learning organizations. One of these tensions is how team mental models may “inhibit or promote the effectiveness of the team learning…the range of views to which the organization is exposed may become narrower….The space for competing interpretations that are disruptive or that question the authority of leaders, may also become more limited”. (p. 98)
Many questions emerge that need to be considered in this inquiry: (a) How and in what way may continuous learning be health promoting and sustainable at an individual and organizational level? (b) How can continuous learning enhance and promote the health and well-being of individuals and the organization as a whole? (c) How can learning environments encourage and promote people to continue to tap into diverse worldviews and ideas, take risks, question the status quo, and learn from their mistakes?

**Trust, Collaboration, Empowerment, and Capacity for Organizational Learning**

A number of empirical studies in educational systems have examined how trust, collaboration, empowerment, and capacity for organizational learning may be connected to shared and distributed leadership and how these potentially contribute to health and well-being.

Tschannen-Moran (2001) argues that building an atmosphere of trust is a significant factor in creating any culture of collaboration. “There is evidence that trust contributes to organizational effectiveness in schools” (p. 313). “A person who desires to be regarded as trustworthy will need to demonstrate benevolence, reliability, competence, honesty, and openness” (p. 324). “Collaboration and trust are reciprocal processes; they depend upon and foster one another” (p. 315).

In this study, specific tools (survey instruments) were developed and pilot tested to measure collaboration and trust in schools. Data were collected in elementary schools in one large urban district. Elementary principals were randomly selected to participate in this study. They were asked to complete a survey about participation in relation to a number of domains. Teachers were also asked to participate in a survey about their perceptions of the degree of influence they had in these same areas. A co-relational analysis was conducted and the results indicated that trust is a prerequisite to genuine involvement in participation, decision-making, and shared leadership. Collaboration and trust were identified as reciprocal processes. “In order for schools to reap the benefits of greater collaboration, trust will be required” (Tschannen-Moran, 2001, p. 327).

Marks and Louis (1999) argue that “a unified organizational culture built around ongoing inquiry into the quality and effectiveness of teaching and learning depends on the collective influence of teachers who function as empowered professionals” (p. 708). Twenty-four
elementary, middle and high schools were chosen to be included in this study. The schools sampled represented 16 states and 22 school districts. Most of the schools were in urban settings and in economically disadvantaged areas. The multi-method design for the study incorporated “a battery of quantitative and qualitative data-gathering instruments” (p. 716).

The primary data came from a survey of teachers who responded to questions about their instructional practices, professional activities, school culture, and their personal and professional backgrounds. The researchers also interviewed 25 to 30 teachers at each of the schools, most of them twice. “Multilevel analyses demonstrate a strong and consistent relationship between organizational learning and teacher empowerment” (p. 707).

Covey (2006) found in his extensive research that

the motive that inspires the greatest trust is genuine caring – caring about people, caring about purposes, caring about the quality of what you do, caring about society as a whole. Think about it: Are you going to trust someone who could really care less about you…or about principles, or values, or anyone or anything else? (p. 78)

Harris (2008) emphasizes that “collegial relations are therefore at the core of capacity building. One of the distinguishing features of schools that are failing is the sheer absence of any professional community, discourse, and trust” (p. 133).

Trust is an essential underpinning of healthy sustainable systems.

A number of critical reviews of the literature support the need for further research in the area of work organization, leadership, and health and well-being (Eriksson, Haglund, & Axelsson, 2008; Polanyi et al., 1998; Shain & Kramer, 2004).

System Environment 3: Interrelatedness of Work and Life

It is in the third system environment, identified through my preliminary interviews, where many of the concerns of the individuals working in this particular organization really became evident.

Observations From the Preliminary Interviews

Key informants indicated that while a continuous learning environment and shared and distributed leadership were generally health promoting in nature, other important areas needed to
be addressed to ensure a healthy and sustainable work and life balance. They reported feeling overworked and stressed and needing more flexibility in how work was organized. They said people felt the need to rejuvenate themselves, to take time off as required for personal reasons, and to work in a proactive manner to minimize stress and retain their capacity to rejuvenate.

Openness, honesty, social-emotional support, choice, flexibility, and connectedness to family and community were identified as important characteristics of a health promoting organization. Informants felt they needed to access additional social and emotional support during difficult times. They also reported needing flexible options and choices open to them related to reorganizing their work, taking time off with family, and being able to be involved in important family and community activities.

**Evidence From the Literature**

The primary evidence in this system environment came from Duxbury and Higgins (2001) who completed a study for the Canadian Policy Research Network (CPRN) comparing results from two large surveys conducted from 1990–1992 (21,228 employees) and from 2000–2001 (6,502 employees) in different organizations across various sectors of the economy. Findings indicated that during the 1990s, work-life conflict showed up and intensified in two areas: role overload and work-to-family conflict. *Role overload* occurs when people have too much to do, and too little time to do it. *Work-to-family conflict* occurs when work demands make it difficult for employees to meet their family responsibilities.

Duxbury and Higgins (2001) noted that balancing work and life demands is associated with the following: (a) organization (commitment, turnover, absenteeism, job satisfaction, rating of organization); (b) family (family satisfaction, family adaptation, family integration, parenting); (c) individual (stress, depressed mood, perceived physical health, burnout, life satisfaction, caregiver strain); and (d) societal (use of health care system).

Duxbury and Higgins (2001) postulated that these relationships can be moderated by organizational factors (work arrangements used, perceived flexibility, work environment, management support, supports offered by the organization, ability to refuse overtime) and by personal strategies the employee and his or her family use to cope (works different hours from spouse, delays in having children).
Another study by Abraham Carmeli (2003) found that emotionally intelligent employees handle work-life conflicts better. This study involved 262 senior managers employed as chief financial officers in local government. They were asked to complete questionnaires using the self-report measures of emotional intelligence developed by Schutte et al. (1998).

Compared to emotionally intelligent senior managers, low-emotionally intelligent senior managers are less able to be sensitive enough to acknowledge how work is affected by family matters, and, thus, feel no need to reduce their career commitment. Senior managers who are high on emotional intelligence recognize having important responsibilities at work, and at the same time realize that they may neglect their family and their needs. (Carmeli, 2003, p. 807)

In reviewing the literature, a number of questions emerged that guided my thinking in relation to the design of this research study. What did a health promoting, continuous learning sustainable organization look like? How did it relate to its employees, families, and communities? Did it care about individual health and well-being? Was it flexible and open to new ways of self-organizing to ensure a greater work and family life balance? Did it recognize the importance of being open to its external environment, and if so, how?

This third system environment values and pays attention to the overall capacity of individuals and the organization to create a healthy and sustainable future.

Some of the major topics arising from the literature in this area are balance, resilience, social/emotional relationships, support, compassion and empathy, and meaning and purpose in work and life. Health promoting, continuous learning, sustainable systems pay attention to the important relationship and synergy between work and life.

**Identifying the Principles of a Health Promoting, Continuous Learning, Sustainable System**

*Nine Principles of a Health Promoting Continuous Learning Sustainable System* were identified in the original proposal for this research study (2008). These principles were identified through a comprehensive review of the literature and discussions with key experts in living systems theory, in particular with Fritjof Capra, Ph.D. physicist and ecologist.

---

3 Appendix B provides the *Initial Nine Principles of a Health Promoting, Continuous Learning Sustainable System*. 
Figure 2 outlines the *12 Principles*. Principles 1 to 8 apply to all living systems. *Principle 9, Emergence and Design* is relevant to all living systems while design is unique to human systems only. Principles 10 to 12 are present in human social systems only.

**Figure 2**

**The 12 Principles of a Health Promoting, Continuous Learning, Sustainable System**

<table>
<thead>
<tr>
<th>All Living Systems</th>
<th>Human Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Open Systems Nested Within Open systems</td>
<td>9. Emergence and Design</td>
</tr>
<tr>
<td>2. Interrelatedness</td>
<td>10. Meaning, Purpose, and Consciousness</td>
</tr>
<tr>
<td>3. Relationships</td>
<td>11. Loss, Change, and Letting Go</td>
</tr>
<tr>
<td>4. Communities, Collaboratives, and Networks</td>
<td>12. Sharing Power, Control, and Empowerment</td>
</tr>
<tr>
<td>5. Diversity of Ideas, Cultures, Worldviews, and Knowledge</td>
<td></td>
</tr>
<tr>
<td>6. Dynamic Balance and Self-Organizing Systems</td>
<td></td>
</tr>
<tr>
<td>7. Flow</td>
<td></td>
</tr>
<tr>
<td>8. Growth, Development, and Learning</td>
<td></td>
</tr>
</tbody>
</table>


These nine principles were later re-conceptualized and expanded to *12 Principles of Health Promoting Continuous Learning Sustainable Systems*. The three additional principles emerged from the data and the final list of principles was discussed with a small number of key system theorists, in particular with Fritjof Capra, Ph.D. These principles were integral to the
development of the conceptual framework (Figure 1, p. 7) and the criteria for selection of schools.

**Evidence from the Literature**

While there is no single discipline for ecological, holistic systems thinking and change, there are some fundamental areas that researchers are thinking about across a number of diverse fields. Some of these include:

- an emphasis on relationships, networks, and working collaboratively across and between organizations and larger systems;
- increased attention to continuous learning, emerging feedback looping, and knowledge development;
- the development of various conceptual, analytical, and whole systems tools and approaches to self-organization, ongoing reflection, and collective decision-making;
- the importance of appreciating the implications of open systems as they are nested within and interrelated with broader open systems;
- a growing appreciation of complexity and ambiguity in complex systems change processes;
- the use of a transdisciplinary approach to research and knowledge development; and
- the need to move from hierarchy and control to emergence, creativity, and self-organization, and how these influence our understanding of human social systems and change.

Researchers are also beginning to think about how they can work from a systems perspective involving interdisciplinary and transdisciplinary teams to address many complex issues. This would create opportunities to draw on diverse perspectives and use multiple research methodologies. It is becoming essential to link knowledge across fields and disciplines and to further develop our capacity to appreciate complexity and systems theory.
Health promotion involves interdisciplinary and transdisciplinary systems research and knowledge development from many fields such as: ecology, business, nursing, psychology, sociology, education, planning, community development, leadership development, organizational change, epidemiology, and biology to name a few. Researchers in health promotion working from a systems perspective address many complex issues focusing on health, well-being, and sustainability from the individual, organizational, community, and global/planetary levels. Health promotion encompasses a broad and optimistic vision for health for all involving the values of:

- Respect for the innate dignity of all people, for cultural identity, for cultural diversity, and for natural resources and the environment; Inclusion and involvement of people in making the decisions that shape their lives and impact upon their health and well-being; Equity in health, social and economic outcomes for all people; Accountability and transparency – within governments, organizations and communities; Sustainability; Social justice for all people; and Compassion and empowerment. (IUHPE Website, 2014)

In the education field, Hargreaves and Fink in *Sustainable Leadership* (2006) identified values and principles coming out of their extensive research and practice that are very similar to the principles I identify. The following seven major principles are discussed by Hargreaves and Fink (pp. 18-20):

1. **Depth**: Learning and Integrity: enrichment of life; relationships of care for yourself and others;
2. **Length**: Endurance and Succession: leading beyond individual leaders over time;
3. **Breadth**: Distribution, not Delegation: sustainable leadership is distributed leadership;
4. **Justice**: Others and Ourselves: focus on socially just behaviours and practices;
5. **Diversity**: Complexity and Cohesion: promotes cohesive diversity;
6. **Resourcefulness**: Restraint and Renewal: does not deplete human and materials resources; renews people’s energy;
7. **Conservation**: History and Legacy: preserves and renews long standing purposes.

A national research study was conducted by Jackson (1986) in the United Kingdom through the National College for School Leadership, *Leading Sustainable Schools: What the Research Tells Us*. This study identifies some important aspects to consider in coming to a deeper understanding of health, learning, and sustainability in schools and education systems. In
this study Jackson examined leadership approaches that created sustainable schools and identified some of the implications for leadership development and national policy in the United Kingdom. A key finding in this study was that:

Distributed leadership seems to be the model best suited to fostering sustainability in schools….The key qualities of a sustainable school leader are that they are optimistic and outward looking. These leaders are conscious of the place of the school in the local and global community….These have an integrated, systemic understanding of the world and their place in it….They understand the interconnectedness of society, the environment, and individuals within these contexts. (Jackson, 1986, pp. 9–10)

The 12 Principles that I have identified through this study are reported here in the Literature Review in a relatively concise manner. Of significance is the interdependent and interrelated nature of each of the 12 Principles. The 12 Principles are relevant to all health promoting, continuous learning, sustainable systems.

In this study, through a review of the literature and an ecological, holistic systems approach to the analysis of the data, specific concepts were identified under each of the 12 Principles.

Principle 1: Open Systems Nested Within Open Systems

Human systems are open systems nested within other open systems and these broader nested systems significantly influence our individual and collective health, well-being, and sustainability. (Stanton, personal journal, 2014)

“A living organism, organization, or social group is a fully open system” (Morgan, 2006, p. 40). Human social systems have open, porous boundaries and individuals are nested within families, workplaces, communities, societies, and the broader globe/planet. With these open, porous boundaries, there is ongoing flow of interaction, influence, communication, feelings, resources, psychological needs, social relationships, and sharing of decisions.

There are many theorists and systems thinkers who help us to understand why and how open systems are integral to creating healthy sustainable systems. Openness relates to a systems capacity to be disturbed (Wheatley, 1999, 2005); to adapt and be generative (Senge, 1990); to go through periods of disequilibrium and to self-regulate (Schwartz, 2010); to self-organize (Capra, 1996, 2002); to be open emotionally, socially, and spiritually (Albrecht, 2006, Goleman, 1998,
2002, 2006; Lesser, 2005; J. Miller, 1996, 2000, 2006; Vanier, 2008); to be honest, vulnerable, and lacking pretense (Vanier, 2008); to experience healthy relationships with other people and the broader world (Schlitz et al., 2007); and to design complex organizational systems and communities that allow ongoing growth, development, shared and distributed leadership, and innovation, through emergence and synergy (Beck & Cowan, 1996; Capra, 1996, 2002; Hargreaves & Fink, 2006; Olson & Eoyang, 2001; Wheatley, 1999, 2005).

There are two primary concepts associated with Principle 1: **Nested Systems / Nesting** and **Curiosity, Novelty, Emergence, Openness Gap, and Openness State**.

**Nested Systems / Nesting**

Teachers are nested within principals and schools, which are nested within superintendents and teams, which are nested within elementary or secondary panels, which are nested within the senior management teams and the school district. The school district is nested within regional political, economic, and community systems. All of these systems are also nested within the Provincial Government’s Ministry of Education which is influenced significantly by the ideology and policies of the political party in government at the time.

We must also recognize the larger global environments and forces that are influencing the health, well-being, and sustainability of our society and our planet (Dahl, 2010; Hancock, 1993, 2000, 2011). These include social values; changes in demographics; economic and environmental shifts; increasing use of technology; further development of international and global business; greater awareness of the need to address poverty; inequities, and violence; political shifts and instabilities; and ongoing shifts in worldviews in relation to the deeper meaning and purpose of education in society. In this study, we recognize these larger nested systems while focusing on one large school district within the province of Ontario. Morgan (2006) explains that it is important to consider this nesting aspect in terms of how we are integrating the needs of individuals within the larger organization.

Eoyang (2001) uses the principle of openness in her work with complex systems change in organizations. She describes two different types of containers or systems. The first is a more open, fluid container and the second is tight and constrained (Human Systems Workshop, July
Both types of containers are useful. We need to consider carefully which type of container we want to create at certain points in a system’s growth and development process.

Open containers are looser and allow more flow, creativity, risk taking, innovation, and collaboration. Looser containers also promote greater exchanges and differences. By loosening up the container, we can promote more exchanges with greater diversity.

Tighter, more constrained or closed containers create more defined structures and direction which can save us energy by providing specific directions. Tight containers are useful when we know where we want to go, when there is little uncertainty, and when we can control the overall processes and directions.

Systems that can benefit from tight, constraining containers include those requiring high levels of protection, safety, and precision. Examples might include accounting, legal services, emergency services, and protective services. These systems are highly controlled with prescribed rules, standards, and policies which in turn are outcome driven.

In human system dynamics or social systems, tight containers often do not work well. “You can never direct a living system; you can only disturb it” (Maturana & Varela as cited in Wheatley, 2005, p. 37). As systems become more evolved and complex, they tend to move towards becoming more open, less standardized, and less aligned. They allow greater ambiguity and adaptability. Health promoting, sustainable systems need to be open to maintain flow and to self-regulate:

In order to achieve and maintain a condition of self-regulation, the individual parts of the system need to relay information about their status to other parts of the system with which they interact. That information can be used to regulate…the functioning of the network of individual parts to maintain overall balance of energy flow within the system as a whole. (Schwartz, as cited in Kabat-Zinn, 1990, pp. 227–228)

Open and complex systems are fully interrelated, interconnected, and nested within each other. They are open to each other in terms of their energy, social and emotional relationships, intellectual development, creativity, and sharing of power and control. This nesting phenomenon can have both positive and negative influences on the health, well-being, and sustainability of individuals and the whole.
Curiosity, Novelty, Emergence, Openness Gap, and Openness State

In 1968, Ludwig von Bertalanffy, a theoretical biologist, recognized that organizations, like organisms, are open to their environment and must achieve an appropriate relation to that environment if they are to survive. Capra (2002) emphasizes that openness to disturbances from the environment is a basic property of life and explains:

Living organisms need to be open to a constant flow of resources (energy and matter) to stay alive; human organizations need to be open to flow of mental resources (information and ideas), as well as to the flows of energy and materials that are part of the production of goods or services. The openness of an organization to new concepts, new technologies, and new knowledge, is an indicator of its aliveness, flexibility, and learning capabilities. (pp. 117–118)

We cannot create anything new without our capacity to be open, creative, emergent, and take risks. We need creative, complex system thinkers and practitioners who are able to work across diverse systems and disciplines in an open way. We need to bring new ideas together to begin to address complex issues and concerns:

Without a good dose of curiosity, wonder, and interest in what things are like and in how they work, it is difficult to recognize an interesting problem. Openness to experience, a fluid attention that constantly processes events in the environment, is a great advantage for recognizing potential novelty. (Csikszentmihalyi, 1996, p. 53)

Openness does not merely require the willingness to speak one’s mind. It also requires the willingness to listen openly, to recognize the existence of different views – and if need be to change one’s mind. This is very threatening because it is easier to cling to a sense of certainty. People don’t just feel more out of control. They are more out of control. It is appropriate to feel some discomfort if they don’t know where this new openness will take them. (Senge et al., 1999, p. 242)

Systems that promote innovation and allow emergence require a culture where people are better able to accept uncertainty and ambiguity. As we become more comfortable with ambiguity, change, and develop trust working together, we feel more comfortable admitting we do not have all the answers. It is necessary to work together to come up with new ideas and solutions on a continuous basis. As our society and global environments continue to become more complex and uncertain we will need to develop these capacities so that we can rely on each other and bring out the diverse strengths of the whole.
According to our theory, there are two primary contributors to developing the capacity for openness: enhancing learning capabilities and psychological safety. While many individuals and teams strive for openness, most do not succeed because effective openness is not just a matter of intent – it also requires skills. For example, raising difficult issues without invoking defensiveness is a highly skillful behaviour. (Senge et al., 1990, pp. 245–246)

Beck and Cowan (1996) in their research describe how important it is to understand openness as a condition for change.

Open thinking strives to remove barriers to allow for the expression of individual differences without getting locked into habitual patterns or unexamined assumptions….When in the open state, we function in ways that remove restraints and allow us to step around or through barriers to change….The healthy person changes when alterations in the life conditions demand the use of different coping means. (Beck & Cowan, 1996, p. 78)

Principle 2: Interrelatedness

Human social systems are significantly interrelated, interdependent, and interconnected to all other living systems – social, natural, and ecological. (Stanton, personal journal, 2014)

In this study, interrelatedness is defined as “to place in or come into mutual relationship” and “mutual or reciprocal relation or relatedness” (Merriam-Webster, n.d.). “Everything in the universe only exists because it is in relationship to everything else. Nothing exists in isolation. We have to stop pretending we are individuals who can go it alone” (Wheatley, 2002, p. 23). “Without a sense of interrelatedness, one has no sense of responsibility to the whole” (Dosher, as cited in Beatson, 2007, p. 181).

Interrelatedness has been studied for many years in relation to ecology, spirituality, and the development of health and human consciousness. Beatson (2007), Capra (1996), Hancock (1993, 2000, 2011), Hargreaves and Fink (2006), Schlitz et al. (2007); Schlitz et al. (2010), Senge (1990), Suzuki (1997), and Wilber (2001, 2006) have talked about the importance of a sense of interdependencies, interrelatedness with and to the greater whole and how it is essential in order to effectively deal with the most complex problems facing our global society.
Senge (1990) and his colleagues, in their work on systems thinking, advocate using a 
variety of conceptual frameworks for seeing interrelationships rather than things isolated as 
parts.

There are two primary concepts associated with Principle 2: Social Consciousness and 
Different Stages, Layers, or Levels of Development.

Social Consciousness

Schlitz et al. (2010) research identifies a strong link between interrelatedness and a 
growing sense of conscious awareness which they term social consciousness. In their research, 
they identify five levels of social consciousness which are very relevant to my study and help to 
clarify different levels of social consciousness development.

We [Schlitz et al.] use the term social consciousness in this paper to denote 
conscious awareness of being part of an interrelated community of others. When 
used this way, social consciousness refers to the level of explicit awareness a 
person has of being part of a larger whole. It includes the level at which one is 
aware of how he or she is influenced by others, as well as how his or her actions 
may affect others. It also includes an understanding that there are many factors 
shaping experience that lie below the threshold of conscious awareness. (p. 21)

At the most narrow level of social consciousness, individuals lack explicit 
awareness of their relatedness to others or the extent to which they are impacted 
by others. At the most expanded level, people become more explicitly aware of 
their interdependence with others, and their ability to influence and be influenced 
by them. (p. 22)

In the Schlitz et al. (2010) model, “when worldview shifts from a primary self-centred 
mode to one in which the self is experienced as an integral part of a larger whole, people report 
becoming more compassionate and service-oriented, and inspired to act as agents for positive 
change in their immediate communities and beyond” (p. 22).

Different Stages, Layers, or Levels of Development

Wilber (2006) discussed various stages of development representing a level of 
organization or a level of complexity.

The word ‘level’ is not meant in a rigid or exclusionary fashion, but simply to 
indicate that there are important emergent qualities that tend to come into being in
a discrete or quantum-like fashion, and these developmental jumps or levels are important aspects of many natural phenomena. (Wilber, 2006, p. 5)

Schlitz also adds an interdisciplinary and transdisciplinary perspective.

People who work and study across diverse disciplines and backgrounds seem to develop a deeper sense of interrelatedness as they come to more fully recognize that learning occurs across disciplines. As we learn and think more in an interdisciplinary or transdisciplinary or creative manner, we come to see the interrelatedness of life more fully. (Schlitz, personal communication, February, 2011)

Wilber (2006) uses a simple model to look at three stages of moral development: egocentric, ethnocentric, and world-centric (p. 51). He explains that another way of looking at this development process is the body, mind, and spirit. In Stage 1, the body is dominated by gross physical reality. In Stage 2, the mind starts to share relationships with many other people based on shared values, mutual interests, and common ideals. Stage 3 expands to the spiritual “in the sense of things common to all sentient beings” (p. 7). He reminds us that “stages are real in the sense that there is something…that we call development or growth …‘stages’ of that growth are simply snapshots that we take at particular points in time and from a particular perspective” (pp. 68–69).

**Principle 3: Relationships**

Human social systems are about relationships – relationships of authenticity, caring, honesty, trust, integrity, openness, joy, compassion, equity, and social justice. (Stanton, personal journal, 2014)


There are two primary concepts associated with Principle 3: *Authenticity* and *Emotional Intelligence, Truth, and Honest Dialogue.*
**Authenticity**

According to Sabina Spencer (2004), as a global society, we are moving from “compliance” to “self-reliance” and then to an “alliance” mindset or worldview (p. 13). We are coming to more fully appreciate the depth of human relationships. We are beginning to create a leadership orientation that is based on deeper values of wholeness, namely the spiritual, emotional, and social well-being of all. This includes more attention to authenticity, caring for others, and ensuring deeper meaning and purpose.

Spencer (2004) believes that we need to learn to listen both inwardly and outwardly. “People are…excited about their work and no longer see themselves as defined through structure….They invest energy in ensuring high-quality relationships, placing emphasis on building strong internal and external networks” (p. 26).

Integrity is a very important underpinning or value of healthy relationships. According to Killinger (2007), a clinical psychologist and author, “wholeness, a psychological state of internal harmony and consistent moral character, best captures the essence of integrity” (p. 12). Killinger explains:

> There is no integrity in saying one thing and doing another….Our spoken and written words must be consistent with our subsequent choices of action or behaviour. Issues of trust are fundamentally important in our relationships. Ultimately, the wisdom of our choices will largely depend on our level of maturity and on how well the character traits of honesty, sympathy, empathy, compassion, fairness, self-control, and duty have been integrated into our personality….Integrity compels us to be socially conscious and other-directed, and to welcome both personal and professional responsibility. Its value encourages us to be honest in all our dealings and committed to a lifelong search for truth and justice….Our society in general needs to make integrity the cornerstone of a visionary movement to rebuild a fresh reference for universal truth, love, and human dignity. (Killinger, 2007, pp. 12–13)

**Emotional Intelligence, Truth, and Honest Dialogue**

Goleman (2002), in his work on emotional intelligence, helps us to understand some of the deeper aspects of healthy relationships. He explains how deep change requires attunement, not alignment. Strategic visions (and the plans that follow) are typically linear and limited, bypassing the elements of heart and passion essential for building commitment.
A bottom-up strategy is needed….Resonance only develops when everyone is attuned to the change. This means engaging formal and informal leaders from all over the organization in conversations about what is working, what is not, and how exciting it would be if the organization could move more in the direction of what is working….Transparent goals, an open change process, involvement of as many people as possible, and modeling new behaviours. (Goleman, 2002, p. 220)

Bohm (1996) also explains:

Our purpose is to really communicate coherently in truth, if you want to call that a purpose. Meaning is not static, it is flowing. And if we have meaning being shared, it is flowing among us; it holds the group together. And then we can talk together coherently and think together….Generally people hold to their assumptions so they are not thinking together. (p. 13)

In healthy, sustainable organizations, we begin to understand more deeply the concepts of dialogue and how we create meaning. Being closed and keeping to our own inner beliefs and assumptions and defending our positions can be problematic. Honest and open dialogue involves sharing common meaning and purpose, listening to each other in a very deep way, and developing a common and shared coherence and consciousness.

Capra (2002) describes relationship challenges we face in leading organizations:

Accordingly, the whole thrust of classical management theory is to achieve efficient operations through top-down control. Living beings, on the other hand, act autonomously. They can never been control led like machines. To try to do so is to deprive them of their aliveness. (p. 104)

Archer (Course, 2007) draws on similar concepts to get at the deeper meaning, understandings, and practices that underpin and create shared meaning and deeper consciousness in learning organizations. Archer works as a consultant with large organizations and focuses on encouraging deep dialogue. She explained that if the senior leadership is not open to deep change, then there is little that can be done to move the organization forward. When the senior leaders are ready to face their concerns and dialogue openly and honestly, then she is able to work with them to begin this deep and transformative change process. Similarly, Senge notes:

In a dialogue, a group explores complex difficult issues from many points of view. Individuals suspend their assumptions but they communicate their assumptions freely. The result is a free exploration that brings to the surface the full depth of people’s experience and thought, and yet can move beyond their individual view. (Senge, 1990, p. 241)
Rifkin (2009) has been working for more than 30 years to understand open systems, major shifts in workplaces, and systemic global trends in changing worldviews and consciousness. Rifkin helps us to think about how these shifts in global consciousness are “developing our empathic consciousness as we move to higher levels of self-transcendence and come to more fully recognize our fragile nature as human beings, within a broader network of life” (p. 41). Rifkin notes that “we are fast becoming a globally connected civilization; empathic consciousness is just beginning to extend to the far reaches of the biosphere and to every living creature” (p. 41).

**Principle 4: Communities, Collaboratives, and Networks**

Communities, collaboratives, and networks are human social systems and relationships organized or structured both formally and informally. (Stanton, personal journal, 2014)

Living social systems are “self-generating networks of communication” (Capra, 2002, p. 106). Social networks are not sufficient as they need to be networks that create shared meaning.

Each communication creates thoughts and meaning, which give rise to further communications. In this way, the entire network generates itself, producing a common context of meanings, shared knowledge, rules of conduct, a boundary, and a collective identity for its members. (Capra, 2002, p. 108)

A living system is a functional living network. This is the first condition of a living system. The second condition of a living system is that the system has to be open to outside influences. A school system that is more collaborative has more networking and more feedback loops and is open, will have all kinds of emergent properties such as you found in your study such as compassion. In the human realm, the feelings of openness, compassion, caring, and generosity are the emergent properties. As people gain increased awareness of their interrelatedness, and the importance that they attach to this awareness, this gives them the feeling of compassion and generosity.

Networks should not be used to get the work done but used to self-generate and have choice. Networks are creative. (Capra, personal communication, September 2011)
A number of the researchers in distributed leadership, particularly in the education system are beginning to think more deeply about some of these aspects of community building, networking, and collaboration in schools and school districts. These include Capra (1996, 2002), Hargreaves and Fink (2006), Harris (2008), Harris and Jones (2010), Spillane (2006), and Wheatley (1999, 2005).

There are two primary concepts associated with Principle 4: Social Networks and Structures Promoting Creativity and Emergence.

Social Networks

In creating health and well-being “the system needs to connect to more of itself” (Wheatley, 2005, p. 106). This requires bringing people together across various system areas and people from outside the school system to dialogue and work together.

We recognize the benefits of social networks in extending individual life and longevity. We are now coming to more fully understand how social networks play a key role in connection among people and how these networked connections can “cause the whole to be greater than the sum of the parts” (Christakis & Fowler, 2009, p. 16).

Recent research has found that social networks have a life of their own and have properties and functions that are not controlled by or even perceived by the people within them. “These properties can be understood by studying the whole group and its structure, not by studying isolated individuals….In this regard we can say that social networks have emergent properties” (Christakis & Fowler, 2009, pp. 24-26). As part of a social network with our friends, family, and colleagues we become part of something larger than ourselves.

Christakis & Fowler (2009) report that social networks are living systems. These networks encourage the flow of intelligence, information, trust, resources, and certain other behaviours.

For example if you join a trusting network of people, you benefit from that trust and are shaped by it….The network facilitates this trust and changes the way individuals behave….The social networks we create are a valuable, shared resource. Social networks confer benefits. (Christakis & Fowler, 2009, pp. 290–292).
Structures Promoting Creativity and Emergence

Self-organizing and self-generating networks allow emergence to be created. Creativity is a collective phenomenon. Self-organizing networks are healthy and alive. Leadership that facilitates emergence and creativity is the critical distinction. Capra emphasized many times that as a leader you do not design outcomes but rather facilitate emergence and creativity (Capra, personal communication, September 2011).

We need both designed and emergent structures in organizations. Emergent structures and informal networks provide novelty, creativity, and flexibility. In every human organization, there is a tension between the designed structures and the emergent structures.

Capra explains that the challenge for leaders is to find the right balance between the creativity of emergence and the stability of design. Facilitating emergence means building up and nurturing networks of communications. We also have to be open systems – open to new ideas and new knowledge. Facilitating emergence includes creating openness which fosters a culture in which continual questioning is encouraged and innovation is rewarded.

The focus on life and self-organization empowers the self. It creates mentally and emotionally healthy working and learning environments in which people feel that they are supported in striving to achieve their own goals and do not have to sacrifice their integrity to meet the goals of the organization (Capra, personal communication, September 2011).

This concept is highly connected to *Principle 8: Emergence and Design*.

Principle 5: Diversity of Ideas, Cultures, Worldviews, and Knowledge

Human social systems require diversity for continual development, growth, and sustainability – diversity of ideas, cultures, worldviews, and knowledge. An important principle of all living systems is an appreciation of diversity. (Stanton, personal journal, 2014)

In human communities, diversity means different cultures, different ethnic backgrounds, different approaches, and worldviews. A number of researchers inform this thinking, including Capra (1996, 2002), Hargreaves and Fink (2006), Lewis, Moore, and Southern (2008), Wheatley (1999, 2005), and Vanier (2008). The work of these researchers and theorists resonates with
some of the deeper aspects of diversity identified in *Principle 1: Open Systems Nested within Open Systems*.

There are two primary concepts associated with Principle 5: *Co-Creation of Living Systems* and *Sustainable Leadership*.

**Co-Creation of Living Systems**

Lewis, Moore, and Southern (2008) discuss some of the important aspects of diversity in their research, *Co-Creating Living Systems That Thrive on Diversity*:

To engage with the complexity of the diverse world we inhabit, we must fully appreciate the potential differences among us. Diversity begins with the recognition and appreciation of people with different backgrounds and from different lifestyles, and it is so much more. To understand diversity, we must be open to an encounter with ‘the other,’ open and willing to learn and be transformed by someone who is different from us. (p. 1)

Vanier (2008) explains how important it is to be open and willing to be transformed by people who are different than we are, such as the disabled and those who frighten us with their differences. Vanier, along with Lewis, Moore, and Southern (2008), emphasize how this openness is connected to our ability to be vulnerable and trusting, and to encourage deeper, mutual relationships. This is also relevant to *Principle 2: Interrelatedness* and *Principle 3: Relationships* which emphasize the importance of deep human relationships and what it means to be fully human.

We are frightened of those who are different, those who challenge our authority, our certitudes, and our value system….We are frightened of change and, I suspect, we are even more frightened of our own hearts. (Vanier, 2008, p. 73)

“Discovering that we need others with different perspectives, experiences, and abilities to co-create our desired future, is essential to embracing diversity as the fabric of our lives” (Lewis et al., 2008, p. 4).

**Sustainable Leadership**

Hargreaves and Fink (2006) identified diversity as an important principle of sustainable leadership. They encourage promoting sustainable leadership and define it as follows:
Sustainable leadership promotes cohesive diversity and avoids aligned standardization of policy, curriculum, assessment, and staff development training in teaching and learning. It fosters and learns from diversity and creates cohesion and networks among its richly varying components. (p. 159)

Hargreaves and Fink (2006) believe that:

Short-term, imposed achievement targets, adequate yearly progress, monolithic curriculum prescription, and pervasive standardized testing do not define the end of history….Governments and educators are beginning to work together to create systems that retain a common focus…while respecting and encouraging the diversity and flexibility that make systems strong, resilient, and sustainable. (pp. 174–175)

The system needs to continue to appreciate and facilitate diversity; it needs to create the conditions for diversity to flourish. The design must be fairly open and act as a flexible guideline as opposed to a strict plan. The designing process needs to be engaging, involve as many people as possible, and ensure that people across the organization feel fully engaged, alive, and valued. Wheatley (2005) clarifies:

All change begins with a change in meaning. Yet we each see the world differently. Is it possible to develop a sense of shared meaning without denying our diversity? Are there ways that organizations can develop a shared sense of what’s significant without forcing people to accept someone else’s viewpoint? (p. 80)

A very important paradox becomes evident. We don’t have to agree on an interpretation or hold identical values in order to agree on what needs to be done. As we sit together and listen to so many differing perspectives, we get off our soapboxes and open to new ways of thinking. We have allowed these new perspectives to disturb us and we’ve changed. (p. 92)

According to Capra (1996), “diversity means many different relationships, many different approaches to the same problem. A diverse community is a resilient community, capable of adapting to changing situations” (p. 303). Even the “diversity of mistakes - will enrich the entire community” (p. 304).
Principle 6: Dynamic Balance and Self-Organizing Systems

Human social systems need to pay careful attention to dynamic balance, equilibrium and disequilibrium as they grow, change and develop, with particular attention on the key underpinnings of resilience, renewal, and regeneration. A living system self-organizes. (Stanton, personal journal, 2014)

The thinking for this principle has been significantly influenced by physicist and ecologist Fritjof Capra (Turning Point, 1982; The Web of Life, 1996; The Hidden Connections, 2002; and personal communication (March 2008, August 2008, October 2009, September 2011, January 2013). Other influences were Mezirow (2000), Nyberg (2009), and Reeves and Allison (2009). The work of these researchers and theorists resonate with some of the aspects identified in Principle 1: Open Systems Nested within Open Systems; Principle 4: Collaboration, Community, and Networks; and Principle 10: Meaning, Purpose, and Consciousness.

All ecological living systems act as feedback loops, so that the ecological community continually regulates and organizes itself. When one link in an ecological cycle is disturbed, the entire cycle brings the situation back into balance, and since environmental changes and disturbances happen all the time, ecological cycles continually fluctuate. These ecological fluctuations take place between tolerance limits, so there is always the danger that the whole system will collapse when a fluctuation goes beyond those limits and the system can no longer compensate for it. (Capra, as cited in Stone & Barlow, 2005, p. 28)

The concept of self-organization is expanded on in Principle 9: Emergence and Design.

There are two primary concepts associated with Principle 6: Self-Maintenance and Renewal and Rejuvenation.

Self-Maintenance

There is a dynamic stability of living, self-organizing, human systems because we are capable of moving from a state of homeostasis and equilibrium to a state of disequilibrium for periods of time. When there are disturbances or changes in our environment, we often go through a period of disequilibrium and ultimately move into a process of adaptation.
This notion of dynamic balance is a useful concept for discussing some of the important underpinnings of health, well-being, and sustainability.

Accordingly, the systems view of health can be applied to different systems levels, with the corresponding levels of health mutually interconnected. In particular, we can discern three interdependent levels of health – individual, social, and ecological. What is unhealthy for the individual is generally also unhealthy for society and for the embedding ecosystem. (Capra, 1982, p. 322)

The “organism’s innate tendency to reestablish itself in a balanced state when it is disturbed” (Capra, 1982, p. 323) is an important underlying principle of a healthy, sustainable system. Recognizing this principle of dynamic balance allows us to try to maintain our sense of health, well-being, and sustainability through various changes in our lives. Viewing health as a dynamic balance is consistent with many of the definitions of health and health promotion as “a process of enabling people to increase control over and improve their health” (WHO, 1986).

In addition to “self maintenance” (Capra, 1982, p. 323), homeostasis, adaptation, regeneration, renewal, and developing resilience are also integral to this dynamic balance process. We also need to understand that living systems can also go through what Capra calls “self-transformation and self-transcendence” (p. 323). These often involve significant and critical life changes, dealing with illness, death, and loss. For some, this creates deeper spiritual or metaphysical changes “resulting in an entirely new state of balance” (p. 323).

Major changes in a person’s lifestyle, induced by a severe illness, are examples of such creative responses that often leave the person at a higher level of health than the one enjoyed before the challenge. This suggests that periods of ill health are natural stages in the ongoing interaction between the individual and the environment. To be in dynamic balance means to go through temporary phases of illness that can be used to learn and to grow. (Capra, 1982, p. 323)

**Renewal and Rejuvenation**

Balance requires recognizing both the individual’s unique needs and their capacity to function and thrive within their broader environments. Capra (1982) explains how human systems interact and communicate with each other and develop synchronized rhythms that help them to fully integrate within their larger environments (or nested systems).

The phenomenon of stress occurs when one or several variables of an organism are pushed to their extreme values, which imbues increased rigidity throughout
the system. In a healthy organism, the other variables will conspire to bring the whole system back into balance and restore its flexibility....The continual imbalance created by prolonged, unabated stress can generate physical and psychological symptoms of muscle tension, anxiety, indigestion which will eventually lead to illness. (Capra, 1982, pp. 323–324)

Living systems experience various *disorientating dilemmas* that cause them to go through periods of vulnerability, openness, and renewal. Balance and renewal are about the ability to go through disequilibrium with support. Renewal coaching provides a framework for beginning to think about what has been termed by Mezirow (2000) as a *disorienting dilemma*.

Renewal is energy that generates passionate action. It is the result of the transformation of adversity into opportunity. For many people, renewal is essentially a spiritual experience – that brings them back to their basic goodness and the meaning of their very existence on the planet. Renewal is not easy, but it is effortless in that it requires surrender. It asks you to stop all the ‘doing’ for a while and come back and rest with the essence of what led you to this moment in your life....When renewal does occur it can be transformative....This...leads to a greater good and ultimately to wisdom. (Reeves & Allison, 2009, pp. 195–196)

In relation to renewal and rejuvenation, the role of the supervisor has a significant influence on the health and well-being of employees. One fairly recent study on *The Impact of Managerial Leadership on Stress and Health Among Employees* (Nyberg, 2009) explored the relationship between managerial leadership, on the one hand, and stress, health, and health-related outcomes among employees, on the other hand. This five-year study found that leadership associated with poor employee health encompassed “both actively destructive behaviour (acting dictatorial, forcing opinions on others, being insincere, and actively unfriendly) and passively destructive behaviour (withdrawing from employees)” (Abstract). Most importantly, “a more mutual and trustful relationship between manager and employee is becoming increasingly important for the organization as well as for the individual employee. Social competence and the importance of emotions and interpersonal relations were very important” (Nyberg, 2009, pp. 15–16).

Destructive emotions are patterns and “are indicators of what depletes or renews a person” (Reeves & Allison, 2009, p. 56). The research identifies how renewal requires understanding one’s own patterns of emotional behavior and thought and taking time to reflect on these.
Principle 7: Flow

Human social systems are influenced significantly by and in a continual process of flow which is an essential underpinning of all healthy sustainable social/human systems – flow of ideas, resources, energy, waste, feelings, power, empowerment, learning, leadership, and synergy. (Stanton, personal journal, 2014)

Csikszentmihalyi (1990) describes flow as “optimal experiences that add up to a sense of mastery – or perhaps better a sense of participation in determining life, that comes as close as what is usually meant by happiness as anything else we can conceivably imagine” (p. 4). “Flow is the way people describe their state of mind when consciousness is harmoniously ordered, and they want to pursue whatever they are doing for its own sake” (p. 6).

The underpinnings of this principle have been significantly influenced by von Bertalanffy (1968), Bohm (1996), and especially Csikszentmihalyi (1990, 1996, 1997).

There are two primary concepts associated with Principle 7: Information, Power, Resources, and Creativity and Meaning, Balance, and Dialogue.

Information, Power, Resources, and Creativity

In human systems, we need to look at flows of information, ideas, creativity, energy, resources, and power, to name a few.

If we look at each of the principles, they have significant elements of flow. Flow of energy has strong ties with Principle 6: Dynamic Balance and Self-Organization. Flow of leadership and learning is related to Principle 12: Sharing of Power, Control, and Empowerment. Flow of meaning and purpose is directly related to Principle 10: Meaning, Purpose, and Consciousness. Flow of creativity and learning is also strongly interrelated and discussed under Principle 8: Growth, Development, and Learning.

Flow is important because it “makes the present instant more enjoyable and because it builds the self-confidence that allows us to develop the skills and make significant contributions to humankind” (Csikszentmihalyi, 1990, p. 42). We experience flow in our personal lives and in our work environments. When people feel in flow, either at work or in leisure, they report it as a much more positive experience than times when they are not in flow. According to Csikszentmihalyi, when we feel we are investing time and energy in a task that we are not
committed to, we feel we are wasting time and energy. Instead of helping us reach our own goal, sometimes we feel that we are taking time away from the time allotted.

Studies on flow have demonstrated repeatedly that, more than anything else, the quality of life depends on two factors: how we experience work and our relations with other people.

Most people spend the largest part of their lives working and interacting with others, especially with members of their families. Therefore it is crucial that one learn to *transform jobs into flow-producing activities*...and to think of ways of making relations with parents, spouses, children, and families more enjoyable. (Csikszentmihalyi, 1990, pp. 6–7)

Flow has been discussed in the literature in relation to differentiation and integration, both of which are necessary to develop greater complexity. Individuals need to become both differentiated and integrated. Together this creates complexity which is essential to ongoing development of health, well-being, and sustainability. Csikszentmihalyi (1990) explains.

Differentiation means that each person is encouraged to develop his or her unique traits, maximize personal skills, set individual goals. Integration, in contrast, guarantees that what happens to one person will affect all others. (p. 180)

Differentiation implies a movement towards uniqueness, toward separating from others. Integration refers to the opposite: a union with other people, with ideas and entities beyond the self. A complex self is one that succeeds in combining these opposite tendencies. (p. 41)

A self that is only differentiated – not integrated – may attain great individual accomplishments but risks being mired in self-centred egotism. A person whose self is based exclusively on integration will be connected and secure, but lack autonomous individuality. Only when a person invests equal amounts of psychic energy in these two processes and avoids both selfishness and conformity is the self likely to reflect complexity. (p. 42)

**Promoting Meaning, Balance, and Dialogue**

Csikszentmihalyi (1990) also discusses how flow helps us experience meaning. Meaning is an essential underpinning of health and well-being. He explains that making meaning is the “joining of all experience into a meaningful pattern….When that is accomplished, and a person feels in control of life and feels that it makes sense” (p. 214).

Ludwig von Bertalanffy (1968) called living structures open systems to emphasize their dependence on continual flows of energy and resources. He coined the term *fleiss-gleichgewicht*
(flowing balance) to express the co-existence of balance and flow, of structure and change, in all forms of life. There are also many ways that flow could be blocked in a living dynamic system. These include: being very closed; not being responsive; being very restrictive; having a rigid future orientation which blocks enjoyment of the present; or blocking new ideas, questioning, creativity, and curiosity.

David Bohm (1996) connects the flow in dialogue to creating meaning and purpose:

A dialogue can be among any number of people, not just two. Even one person can have a sense of dialogue within himself, if the spirit of the dialogue is present. The picture or image that this derivation suggests is of a stream of meaning flowing among and through us and between us. This will make possible a flow of meaning in the whole group, out of which will emerge some new understanding. It is something new....It is something creative. And this shared meaning is the ‘glue’ or ‘cement’ that holds people and societies together....Contrast this with the word ‘discussion’, which has the same root as ‘percussion’ and ‘concussion’. It really means to break things up. It emphasizes the idea of analysis, where there may be many points of view....The object of the game is to win or get points for you....That’s very frequently the case in a discussion....In a dialogue, however, nobody is trying to win. Everybody wins if anybody wins. There is a different sort of spirit to it. (p. 2)

Allowing and promoting ongoing flow of deep dialogue is often a difficult thing for leaders in a system. It can be threatening and cause fear and instability. Few leaders in large organizations are comfortable with this type of flow. The object of dialogue is...to suspend your opinions and to look at the opinions – to listen to everybody’s opinions, to suspend them, and to see what all that means” (Bohm, 1996, p. 7).

Principle 8: Growth, Development, and Learning

Human social systems are in a continual process of growth, development, learning, and change – involving ongoing creativity, co-creation, risk taking, generativity, and facilitation of emergence and complexity. (Stanton, personal journal, 2014)

One of the most important aspects involved in creating a more developed learning system is the ability to move from single- to double-loop learning. Creating a healthy, sustainable system is a continuous process of information exchange between a system and its environment which allows the system to monitor changes and initiate appropriate responses. Many organizations are adept at single-loop learning which involves developing the ability to scan the external environment, set objectives, and monitor system performance in relation to these.

Another important underpinning of creating a more balanced approach to change and deep learning is to use diverse practices that encourage increased integration, reflexivity, contemplation, creativity, and deep dialogue. Such practices include meditation, reflection, contemplative thinking and practices, mindfulness, restorative practices, and integrative and creative thinking. Thinkers who have discussed these practices include Kabat-Zinn (1990), J. Miller (1996, 2000, 2006), Pert (1997, 2006), Sable (2012), Senge et al (1999), Senge et al (2000), Siegel (2010), Sloan (2011), and Wheatley (1999, 2005).

Principle 8 is complex and consists of three primary concepts: Directive Organizations; Brain Structure and Forms of Thinking; and Single- and Double-Loop Learning.

**Directive Organizations**

According to Morgan (2006), it is important to recognize that most organizations are top-down, directive, and focus on control. They develop clear objectives, outcomes, and encourage single-loop learning by pushing people towards these pre-determined goals (p. 92). While this is very important and foundational to high performing organizations, it can also be limiting in terms of growth, development, and learning. Morgan explains.

Managers need to avoid the role of grand designer in favour of one that focuses on facilitation, orchestration, boundary management, creating ‘enabling conditions’ that allow a system [individual, school] to find its own form. (p. 111)

Egocentric organizations tend to see survival as hanging on to the preservation of their own… narrowly defined identity rather than on the evolution of the more fluid and open identity of the system to which they belong….In the long run, survival can only be survival with, never survival against, the environment or context in which one is operating. (p. 250)
Spencer (2004) says these type of organizations have a compliance mindset “which encourages us to look to others for leadership and approval…and promotes competition, conformity, and top-down control” (p. 14). In this type of environment, there is significant “micromanagement” (p. 16) and task-orientation. People ask “how do I fit in” (p. 14)? In directive organizations, people are not encouraged to gain a deeper understanding of their inner selves, which requires knowing one’s own values, worldviews, and deep human spirit.

In the jargon of social psychologists, groups are naturally coercive: they need shared norms and shared ways of thinking and seeing to function effectively…. The difference between a healthy group or organization and an unhealthy one lies in its members’ awareness and ability to acknowledge their felt needs to conform. (Senge et al., 2004, pp. 31–32)

Trying to open up and be truthful with oneself and others is a great professional challenge. According to Spencer (2004), as we begin to look inside to know ourselves and open up to our inner power, we begin to move from a mindset of compliance to a mindset of defiance and then move on to self-reliance and asking how do I make a difference? Self-reliance is when we let go of the need to make others responsible for our lives and seize the leadership responsibility for ourselves. Spencer (2004) states that when “we shift away from a material focus towards one that values and integrates the spiritual and emotional aspects, we move into a whole new orientation to leadership” (p. 20).

**Brain Structure and Forms of Thinking**

As we all become more highly conscious and develop more openness and comfort with ambiguity and change, we begin to appreciate the diverse ways of learning, knowing, and seeing the world. We begin to more fully appreciate diversity (Principle 5). We feel more comfortable listening openly and learning without judging different opinions, ideas, cultures, and worldviews. Pink helps us understand the significance of whole mind thinking.

However tempting it is to talk of right and left brain hemispheres in isolation, they are actually two half-brains, designed to work together as a smooth, single, integrated whole in one entire compete brain. The left brain knows how to handle logic and the right brain knows about the world….Leading a happy, healthy successful life depends on both hemispheres of your brain. (Pink, 2005, p. 25)
Pink (2005) says “we are a society of creators and empathizers which requires pattern recognizers and meaning makers” (p. 50). He emphasizes that we cannot be a healthy sustainable society if we have either a left brain or a right brain world. We need the whole mind. Pink helps us to understand how we need to increase our right brain thinking in order to create a more balanced and whole-mind approach to complex issues. He emphasizes the importance of right brain thinking in developing the capacity to see the big picture. Pink also emphasizes expressive qualities such as empathy; the ability to bring play, joy, and humour to our work and life; and the importance of meaning in life.

We can see a new movement towards integrative thinking occurring in various disciplines. Roger Martin (2009) shared his thinking and ideas with me (personal communication, 2009) about his research published in The Opposable Mind: How Successful Leaders Win Through Integrative Thinking. Martin studied with Chris Argyris and is interested in learning how exceptional leaders think. Martin interviewed leaders to find out how complex thinkers were able to hold diametrically opposing ideas in their heads and then produce a superior synthesis. He calls this integrative thinking.

Integrative thinkers take a broader view of what is salient….Integrative thinkers don’t mind the mess. In fact they welcome it because the mess assures them that they have not edited out features necessary to the contemplation of the problem as a whole….They feel confident that they will not get lost along the way but emerge on the other side of the problem with a clear resolution….Integrative thinkers don’t flinch from considering multidirectional and non linear relationships….The integrative thinker will always search for creative resolution of tensions, rather than accept unpleasant tradeoffs. (Martin, 2009, pp. 41–43)

When we talk about learning, we also need to think about the diverse ways that we think and learn. Polanyi (1967) made a profound contribution to the field of learning when he presented his argument about tacit knowledge. Polanyi explained:

We need to start from the premise that we know more than we can tell….Tacit knowledge comprises a range of conceptual and sensory information and images that can be brought to bear in an attempt to make sense of something….Many bits of tacit knowledge can be brought together to help form a new model or theory. (pp. 1-2).

By paying attention to the concept of tacit knowledge, we can become more aware of the intuition and inner guidance that we all possess, we often do not tap into this form of knowledge.
**Single- and Double-Loop Learning**

In single-loop learning processes, “defensive routines can also become a central part of the culture of an organization” (Argyris & Schön, as cited in Morgan, 2006, p. 87). People are not afraid to ask questions. Open organizations and leaders encourage deep dialogue.

All of this...can raise high levels of anxiety in an organization. In particular, it is difficult for managers who want to be ‘on top of the facts’ and ‘in control’ to ride the creative chaos on which innovation thrives. Yet this is precisely the competence that double-loop learning requires. (Morgan, 2006, p. 91)

Argyris and Schön (1978) have shown how important it is to be self-reflective, to think about underlying values and mindsets, and to “detect and correct errors in our operating norms” (p. 84). Self-questioning is necessary if people are to move into “double-loop learning” and “learning to learn” (Argyris & Schön, as cited in Morgan, 2006, p. 84).

If learning is to persist, managers and employers must also look inward. They need to reflect critically on their own behaviour, identify the ways they often inadvertently contribute to the organization’s problems, and then change how they act. I have coined the term ‘single-loop’ and ‘double-loop’ learning to capture this crucial distinction. Put simply, many professionals are almost always successful at what they do, they rarely experience failure. And because they have rarely failed, they have never learned how to learn from failure. So whenever their single-loop strategies go wrong, they become defensive, screen out criticism and put the ‘blame’ on anyone and everyone but themselves. In short, their ability to learn shuts down precisely at the moment they need it most. (Argyris, 1991, p. 1)

Argyris (1991) points out that effective double-loop learning is not simply a function of how people feel, it is also a reflection of how they think. They are often threatened by examining their own role in the organization and may feel uncomfortable. This is one reason why knowing oneself well is so important.

Tsoukas in response to Argyris, (1991) offers this insight:

Doubt, debate, and reflexivity are the very qualities needed to promote learning. A knowledge-intensive workplace thrives on the exchange of ideas and experiences in the interest of enhancing the collective pool of knowledge and generating new ideas. As we know from academic life, for ideas to flourish, debate is needed; hence the importance of criticism, learning, and reflexivity. (Argyris, 1991, p. 15)
Another important underpinning of a deep learning process is what Argyris and Schön (1978) call *theory-in-use*. Sometimes people act inconsistently and are often unaware of the contradictions between their *espoused theory* and their *actual theory-in-use*.

We have all seen this in ourselves and others, where we say we believe and value certain behaviours and values, and then we act in a completely different way. Often we may not even be aware of these inconsistencies or lack of integrity, but others can see it clearly. By encouraging more open dialogue, trusting relationships, and creating opportunities for sharing and communication, we can begin to address inconsistencies at various levels of the system.

**Principle 9: Emergence and Design**

Human social systems can conceptualize, envision and design their own environments and conditions, based on their vision, values and goals. At the same time, we need to encourage ongoing creativity, wholeness, and emergence. This will allow systems to continuously learn, change direction, and bring together the necessary resources and people to co-create their future together. (Stanton, personal journal, 2014)


It is important to recognize that “in all relationships, learning and growth happen in this emergent space because there is ‘give and take’ in all interactions” (Holladay & Quade, 2008, p. 31). “Human organizations always contain both designed and emergent structures” (Capra, 2002, p. 120).

There are two primary concepts associated with Principle 9: *Novelty, Learning, Creativity, and Transformation* and *Adaptation, Growth, and Sustainable Leadership*.

**Novelty, Learning, Creativity, and Transformation**

“The emergent structures are created by the organization’s informal networks and communities of practice….Emergent structures provide novelty, creativity, and flexibility. They are adaptive, capable of changing, and evolving” (Capra, 2002, p. 121). There must be a certain openness, a willingness to be disturbed, in order to set the process of emergence in motion.
The initial openness to disturbances from the environment is the basic property of all life. Living organisms need to be open to a constant flow of resources (energy and matter) to stay alive; human organizations need to be open to a flow of mental resources (information and ideas), as well as to the flows of energy and materials that are part of the production of goods or services. The openness of an organization to new concepts, new technologies, and new knowledge is an indicator of its aliveness, flexibility, and learning capabilities. (Capra, 2002, pp. 117–118)

Emergent structures are more responsive to communities and to learning needs. Wheatley (as discussed in Capra, 2002, p. 121) and Capra (2002) note that, “skillful managers understand the interdependence between design and emergence; their challenge is to find the right balance between the creativity of emergence and the stability of design” (p. 121). Facilitating the emergence of novelty is about “creating the conditions rather than giving directions and using the power of authority to empower others” (Capra, 2002, p. 122). Emergence of novelty is a property of open systems. This comes back to the discussion in Principle 1: Open Systems Nested within Other Open Systems.

Harris (2008) has designed a model of leadership distribution which describes autonomous distribution as having more flexible structures and deep coordinated practice. “This necessarily requires relinquishing the idea of structure as control and instead viewing structure as the vehicle for empowering others” (p. 134). “In order to maximize a school’s creative potential and learning capabilities, it is crucial to understand the interplay between the formal designed structures and the informal, self-generating networks or groupings” (p. 113).

Facilitating and catalyzing emergence may cause major shifts in thinking, feeling, and organizational structures. The ability to encourage ongoing continuous distribution and sharing of power, control, leadership, and learning in an empowering manner (Principle 12: Sharing Power, Control and Empowerment) will naturally lead to the breakdown of outdated structures and power relationships. New structures, relationships, and cultures will be created.

Capra (2002) sees emergence as:

bringing life into human organizations by empowering their communities of practice which not only increases their flexibility, creativity, and learning potential, but also enhances the dignity and humanity of the organization’s individuals, as they connect with those qualities in themselves. (p. 125)
James (2011) elaborates.

As networks grow and transform into active working communities of practice, we discover how life truly changes, which is through emergence. When separate, local efforts connect with each other as networks, and then strengthen as communities of practice, suddenly and surprisingly a new system emerges at a greater level of scale. This system of influence possesses qualities and capacities that were unknown in the individuals. It is not that they were hidden; they simply do not exist until the system emerges….And the system that emerges always possesses greater power and influence than is possible through planned and incremental change.

Creativity generates emergence, and emergence produces creativity – the whole process is an ongoing creative, emergent feedback loop.

Facilitating emergence in organizations is partly about creating the conditions that allow people to contribute more of themselves than just their job description…to bring their unique creativity out in service of the vision, the team, and the organization. People buy into what they help to create. To bring out the creativity requires leaving the ‘control’ mindset, and trusting in the natural self-organization of the creative process, while also creating boundaries for that creativity to emerge. (p. 1)

**Adaptation, Growth, and Sustainable Leadership**

Being comfortable with confusion and ambiguity is necessary for emergence. Questioning needs to be encouraged and innovation rewarded. “Taking emergence seriously means engaging in real field work that probes for what is emerging and its significance, meaning, and implications” (Morrell, as cited in Patton, 2011, p. 127). “This begins by freeing one’s mind from the constraints and blinders of narrow, goals-focused evaluation to be open to and look for unanticipated impacts and surprises” (Patton, 2011, p. 127).

Adaptation and growth underpin complex, adaptive, and health promoting systems.

Interacting elements and agents respond and adapt to each other, and to their environment, so that what emerges is a function of ongoing adaptation both among interacting elements and the responsive relationships interacting agents have with their environment. Innovators adapt. (Patton, 2011, p. 131)

In his research, Collins (2001) found that it was important to monitor both effectiveness and emergence, and adapt accordingly (as discussed in Patton, 2011, p. 133).
Hargreaves and Fink’s (2006) first three patterns of distribution are more of a guided, facilitated, and designed approach; the last two patterns are termed emergent and assertive patterns of leadership distribution. Hargreaves and Fink (2006) state that “emergent leadership…cannot be delegated or directed….It comes forward from the staff in ways that are unanticipated and even surprising” (p. 122). Capra (2002) adds:

Human organizations always contain both designed and emergent structures…. Designed structures provide stability….Emergent structures on the other hand, provide novelty, creativity, and flexibility. They are adaptive, capable of changing and evolving….The issue is not one of discarding design structures in favor of emergent ones. We need both. In every human organization there is a tension between its designed structures, which embody relationships of power, and its emergent structures, which represent the organization’s aliveness and creativity. (pp. 121-122)

Capra states that “we need to find a way to combine high emergence with progressive design” (personal communication, September 2011).

Olson and Eoyang’s (2001) work provides an extensive array of conceptual tools through containers, differences, and exchanges (CDE Model). Their approach assists us in consciously developing or designing the looseness and tightness of the container, looking for the differences that make a difference, and identifying many of the important exchanges going on in a system. The ability to self-organize is important to emergence. “Self-organization does not occur in predictable stages. The interaction of the system agents creates unpredictable patterns that change over time” (Olson & Eoyang, 2001, p. 49). More flexibility, autonomy, responsiveness, diversity, and creativity are important to emergence.

[In the] self-organizing zone; activity is characterized by constraints that allow for meaning making and adaptation. This allows for more meaning making and adaptation….There must be enough constraints that the boundaries are clear, yet constraints must also allow the organization to try new ways, adapt to changing demands, and shift towards greater fit and sustainability in the greater environment. (Holladay & Quade, 2008, pp. 36-37)

Through the work of Holladay and Quade (2008) we can learn a lot about creating systems that are healthy, sustainable, continuously learning (self-organizing zone), and at the same time, have the structures, procedures, and guidelines (designed/organized zone) that provide the foundation and security for some key aspects of the system. We can also see that
only by allowing a movement towards *self-organizing systems* and, at some points, even *unorganized systems*, can we continue to thrive, learn, be creative, and grow in a healthy and sustainable manner.

**Principle 10: Meaning, Purpose, and Consciousness**

Meaning, purpose, and consciousness is the synergy point holding the system together – motivating and sustaining human dynamics. Individuals, groups and organizations need to feel a deep sense of meaning and purpose to be healthy and alive. I view it as the soul, spirit, wholeness, and health of the system. (Stanton, personal journal, 2014)


Other important considerations for meaning, purpose, and consciousness relate to: mindfulness and contemplation of life (Kabat-Zinn, 1990; Sable, 2012; Sloan, 2011); an appreciation of the human qualities of life such as authenticity, forgiveness, and caring (Somerville, 2006); creating a space for different ways of knowing (Saul, 2001; Sloan, 2011; Somerville, 2006); and developing a deep ecological, spiritual, and global awareness that we are interrelated with all of life (Beatson, 2007; Bohm, 1996; Capra, 1982, 1996, 2002; Church & Sher, 1987; J. Miller, 1996, 2000, 2006; Senge, 1990; Wheatley, 1999, 2005).

Meaning, purpose, and consciousness has been discussed in the literature from many diverse perspectives and disciplines. Synergy is a phenomenon that can help us understand how we transform from one level to another level.

According to Capra (2002), “consciousness is a special kind of cognitive process that emerges when cognition reaches a certain level of complexity” (p. 38). There seems to be two major kinds of consciousness.

‘Primary consciousness’ arises when cognitive processes accompanied by basic perceptual, sensory and emotional experience. Primary consciousness is probably
experienced by most mammals and some birds….The second type of consciousness, sometimes called ‘higher-order consciousness’, involves self-awareness – a concept of self, held by a thinking and reflecting subject. (Capra, 2002, p. 39)


There are also a number of system theorists and researchers who have discussed the importance of complexity and consciousness. These systems thinkers include: Csikszentmihalyi, (1990, 1996, 1997), Cunningham (2000), Siegel (2010), and Teilhard de Chardin (1955).

Teilhard de Chardin (1955) describes his law of complexity-consciousness explaining that there is a “tendency of matter to become more complex over time and at the same time to become more conscious.” He also explains that “as human beings continue to come into closer contact with one another, their methods of interaction continue to complexify in the form of better organized social networks, which contributes to an overall increase in consciousness” (Wikipedia, n.d.).

There are two primary concepts associated with Principle 10: Sense of Coherence, Flow, Creativity, and Synergy and Spiritual and Ecological Dimensions.

**Sense of Coherence, Flow, Creativity, and Synergy**

There are a number of systems theorists and thinkers who discuss how these concepts are related to this principle, meaning, purpose, and consciousness. Some of these include: (a) a sense of coherence (Antonovsky, 1996); (b) flow and creativity as complexity development Csikszentmihalyi (1990, 1996, 1997); (c) mindsight as growing complexity-consciousness (Siegel, 2010); (d) connectedness as growth, development, and consciousness (Christakis & Fowler, 2009); (e) developing a greater sense of global and ecological awareness (Hargreaves and Shirley, 2009, 2012); (f) common purpose leadership (Kurtzman, 2010); and (g) abundant organization (Ulrich & Ulrich, 2010).
In the health promotion field this meaning and purpose has been termed “a sense of coherence” by Aaron Antonovsky (1996, p. 15). He helps us to understand how health is created on an ongoing basis. Similar to creating an open space and being in the moment, Antonovsky offers us a concept that helps us to understand how to continuously create health, well-being, and sustainability.

Csikszentmihalyi (1990, 1996, 1997) encourages us to see flow and creativity as an ongoing process of complexity development. Siegel (2010) helps us to understand relationships and mental health through a growing complexity-consciousness which he called Mindsight. Christakis and Fowler (2009) describe Connectedness as being part of a process of continuous growth and development as we become more and more connected to each other and across the world. Hargreaves and Fink (2006) encourage us to develop a deep sense of meaning and purpose through paying attention to diversity and sustainable leadership. Hargreaves and Shirley (2009, 2012) have taken this thinking further in The Fourth Way and the Global Fourth Way where we begin to develop a greater sense of global and ecological awareness.

Kurtzman (2010) also found in his work that “common purpose leadership, at its most basic level, is about recognizing people as individuals. Common purpose leadership begins with respect for individuals and their differences and it goes on to celebrate those strengths” (p. 160). He notes that individuals do not want to “get caught in a rut or trapped in a job without meaning to them” and “they certainly don’t want to create common purpose in an organization that does not have a higher purpose” (p. 162). He argues that “values matter” (p. 165).

Ulrich and Ulrich (2010) in their book, The Why of Work, define an abundant organization as “a work setting in which individuals coordinate their aspirations and actions to create meaning for themselves, value for their stakeholders, and hope for humanity at large” (p. 4). “An abundant organization is one that has enough to spare of the things that matter most: creativity, hope, resilience, determination, resourcefulness, and leadership” (p. 4). They explain that “ultimately a crisis of meaning is ultimately a crisis of leadership” (p. 7).

Building on my previous research in A Systems Approach to Health Promoting Schools (2004), David Rivett, Coordinator of the Healthy Schools Project, World Health Organization, Geneva Switzerland reminds us:
This is a change process that is messy and emergent and involves re-organizing at a higher level. It involves a paradigm shift. It is a challenge to see the world differently. A health promoting system is more of a process of contextual interpretation; a dialogue and consensus among its participants; with a certain value framework in a particular context. It requires people that are comfortable with ambiguity and change, and believe that by working together we can make a bigger difference – building synergy exponentially. It requires an appreciation that systems change is an ongoing process of dialogue and developing shared meanings. (Rivett, personal communication, 2004)

**Spiritual and Ecological Dimensions**

A number of theorists and researchers have been studying the spiritual and ecological dimensions of meaning, purpose, and consciousness. Dahl (2010) is a biologist, ecologist and a retired Deputy Assistant Executive Director of the United Nations Environment programme (UNEP). He has forty years of experience in sustainable development. He explains that human systems have spiritual dimensions:

> We are a biological organism, but also a social entity that builds complex communities. We also have the potential for emergent properties of a ‘spiritual’ being with ethics, values, and ideals which collectively are embodied in a culture and often a religion. These guide the struggle of the self/ego towards a mature altruistic adult, what in spiritual terms could be described as the growth of the intangible (soul) towards the absolute (God). The science of the physical world lacks tools to address this level of widespread human experience. It is unreasonable, even arrogant to deny the importance of this level and to limit reality to only what science can measure. (Dahl, 2010, pp. 5–6)

There are a number of other theorists and researchers that discuss the spiritual dimensions of health, well-being, and sustainability of individuals and the global planet including Capra (1982, 1996, 2002), Church & Sher (1987), Cunningham (2000), Hancock & Perkins (1985), Johnson (1998), Kubler-Ross (1969), J. Miller (1996, 2000, 2006), Moore (1992), and Wheatley (1999, 2005). These theorists and researchers are aware of the interrelatedness of our inner and outer worlds, our inner and shared purpose, and the value of all life forms including human living systems and our planet.
Principle 11: Loss, Change, and Letting Go

Human social systems experience various stages of change, loss, letting go, and moving on, related to their stages of development, generational issues, and cycles of life, death, and critical life issues. (Stanton, personal journal, 2014)

I have been studying and working with human social systems for 30 years and bring extensive experience as a nurse working with human beings who have experienced deep loss, grief, and cycles of health, stress, disequilibrium, illness, and rejuvenation.


There are two primary concepts associated with Principle 11: Breaking Down/Opening Up and Resilience.

Breaking Down / Opening Up

Viorst (1986), a psychoanalyst, studied loss for many years:

Loss is a far more encompassing theme in our life. For we lose by changing and letting go and by moving on. And our losses include...impossible expectations, illusions of freedom and power....losses involved in facing the limitations on our power and potential and deferring to what is forbidden and what is impossible....losses of relinquishing our dreams of ideal relationships for the human realities of imperfect connections....and...the multiple losses – of the second half of life, of our final losing, leaving, letting go. (pp. 15–18)

Lesser (2005) shows how the forces of a difficult time help us grow. She explains how we isolate ourselves at times of grief and assume others are not sharing a similar experience. Lesser also reminds us of the importance of being broken open by loss, love, and life itself and how we still “resist the river of change” (Lesser, 2005, p. 256). We try to control what is out of our control but we have a choice to break down or open up.
**Resilience**

The concepts of resilience, renewal, and rejuvenation connected to *Principle 6: Dynamic Balance and Self-Organizing Systems* in that disequilibrium can be much longer and more complex when significant loss and change are experienced.

Reeves and Allison (2009) encourage us to think of losses we have experienced. They explain how going through a process of renewal coaching will not ease the pain of loss but may assist individuals and organizations to move into resilience.

Resilience is the bridge between pain and renewal….You take a blow and it compromises you for a while. Then you straighten up, figure things out and find the silver lining, learn something new, reconfigure your thinking, take positive action and get back on the horse. (p. 140)

Kabat-Zinn (1990), who developed mindfulness meditation practices in the medical field for addressing pain and healing, encourages us to cultivate the way of awareness to process loss and develop resilience.

In our culture, we are not so familiar with the notion of ways or paths. It is a concept that comes from China….The Tao...is the path of insight, of wisdom and healing….It is the art of conscious living, of knowing your inner resources and your outer resources and knowing also that, fundamentally there is neither inner nor outer. (p. 440)

Moore (1992) explains:

Growing old is one of the ways that the soul nudges us into attention to the spiritual aspect of life. The body’s changes teach us about fate, time, nature, mortality, and character. Aging forces us to decide what is important in life. (p. 216)

As we go through more and more turbulence and change in our lives, as a society and as a global world environment, the ability to come to appreciate complex systems change, loss, and growth, which often involve being able to let go and move on, will become very significant. We need to become more aware and conscious of these ongoing complex system change processes of loss and change in our daily lives.

These may involve intuitive processes that we often do not think about explicitly, but we feel and experience deeply and that affect us on many levels. We need to become more
conscious of these deep, transformational change processes. We can then try to develop the practices, lifestyles, and social networks to support us, as individuals and as organizations.

As for losses and gains, we have seen how often they are inextricably mixed. There is plenty we have to give up in order to grow….For we cannot deeply love anything without being vulnerable to loss. And we cannot become separate people, responsible people, connected people, reflective people, without some losing and leaving and letting go. (Voirt, 1986, p. 327)

**Principle 12: Sharing of Power, Control, and Empowerment**

Human social systems, as they develop and grow, learn how to authentically share and distribute power, control, leadership, resources, empathy, and energies of life. (Stanton, personal journal, 2014)

This principle involves theories, frameworks, and research related to distributed leadership, systems thinking/change research sharing of power and control, meaningful participation in decision-making, health promoting leadership, and empowerment.

In self-organizing systems, people become more comfortable with ambiguity and complexity. They develop the capacity to share power and control across communities and networks. These systems create leadership patterns where individuals and collectives feel confident and capable and where they are able to voice their concerns, identify their needs, and take responsibility for themselves and others. There is a greater awareness of the interrelatedness of life. There is a growing recognition that by creating environments of empowerment and trust, individuals will be able to work collaboratively towards achieving shared vision and goals.

There are four primary concepts associated with Principle 12: Empowering Forms of Distributed Leadership; Empowerment Research and Health Promoting Systems; Importance of Consciousness-Raising in Empowerment and Participation; and Freedom to Choose.

Empowering Forms of Distributed Leadership

During my doctoral studies, I completed an extensive literature review and paper for Professor Ken Leithwood on empowering forms of distributed leadership for promoting optimal health and well-being. Through this literature review, I identified characteristics and specific criteria of distributed leadership that can be considered to be empowering and health promoting. These criteria include: sharing of power and control, participation in decision-making, an organizational culture of continuous learning, and an organizational culture of collaboration and community building (with an emphasis on the whole person – social, emotional, intellectual, physical, and spiritual). I was able to conclude that there was considerable evidence that empowering forms of leadership have a significant and positive influence on job satisfaction, increasing trust in supervisors, and peers. This improves mental health and increases perceptions of autonomy and control. Empowering forms of leadership positively influence staff motivation, organizational learning, organizational commitment, work effectiveness, and performance. They also create a sense of meaning, purpose, and coherence and increase retention of staff. There is less burnout and less absenteeism. Reduced stress in environments results in more empowering approaches. Empowering forms of leadership also increase the willingness of individuals to contribute to the greater good of the organization and society as a whole.

The research also supports the view that intrinsic rewards are much more powerful in motivating teachers than extrinsic rewards. Job dissatisfaction leads to stress and ultimately to burnout. This has been confirmed in both health and education. Perceived control and a sense of power have been positively associated with health and well-being. It has been demonstrated that as teacher autonomy increases, so does empowerment and professionalism.

Teachers who perceive that they are empowered in their work environments have higher levels of interpersonal trust in their supervisors and peers. Teachers who found their work
personally meaningful also reported that they had autonomy and influence in their work environments.

**Empowerment Research and Health Promoting Systems**

Empowerment is a key concept in health promoting, sustainable leadership and systems. It has been discussed in the literature across many disciplines for over 30 years. A recent report prepared for the World Health Organization Europe (Wallerstein, 2006) examines the question: What is the evidence on effectiveness of empowerment to improve health?

Wallerstein explains that in the last three decades, many health professionals, aid agencies, foundations, and government agencies have focused on empowerment and other bottom-up approaches. These were part of a dominant community development paradigm. This is in contrast to the top-down strategies of the 1960’s and 1970’s.

Power is central to the idea of community empowerment with two core aspects based in relationships with others: control over resources (materials, human, financial) and control over ideology (values, attitudes, beliefs). The World Bank (as cited in Wallerstein, 2006) has defined empowerment as:

‘the process of increasing capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes’ and ‘the expansion of assets and capabilities of…people to participate in, negotiate with, influence, control, and hold accountable, institutions that affect their lives’. (p. 17)

Empowerment is an action-oriented concept with a focus on removal of formal and informal barriers and on transforming power relations between communities and institutions and government. (p. 18)

A critical theme in the literature, and supported through these current research findings, is the importance of letting go of control and creating a more participatory, open, and trusting environment. A health promoting leader lets go of control in order to create participation among coworkers. For this to be possible, the leaders trust their co-workers and show that he/she trusts and is trusted by them.
Importance of Consciousness-Raising in Empowerment and Participation

The work of educational philosopher Paulo Freire has had a significant influence in education through the articulation of a consciousness-raising process emanating from a continuous cycle of dialogue and action. (Wallerstein, 2006, p. 18)

Empowerment influences people’s ability to act through collective participation by strengthening their organizational capacities, challenging power inequities and achieving outcomes on many reciprocal levels in different domains. (Wallerstein, 2006, p. 19)

Empowerment is an underpinning of transformational change for individuals and their organizations. Raeburn and Rootman (1998) explain how health promotion is “concerned with the whole of life”, is “holistic”, “ecological”, and “interdisciplinary” in nature (p. 9). They describe health promotion as:

an enterprise involving the development over time, in individuals and communities, of basic and positive states of and conditions for physical, mental, social, and spiritual health….At the heart of this enterprise are two key concepts: one of development (personal and community) and the other of empowerment. (p. 11).

Raeburn and Rootman describe the importance of participation, social support, a strength-building approach, community development, personal, and organizational development in promoting health.

Sergiovanni (1994) highlighted his concern that teachers cannot be asked to “unduly sacrifice their own thoughts, preferences, and styles” to that of the greater community (p. 150). “In communities, leadership is not defined as the exercise of power over others….In communities, leadership as power over events and people is redefined to become leadership as power to accomplish shared goals” (Sergiovanni, 1994, p. 170).

Spencer (2004; personal communication September 2006; August 2008) explains how we tend to move from a compliant mindset where external authority is valued and people feel controlled to one where people take on more empowering forms of shared leadership, learning, and interrelatedness. People learn to take care of and speak up for their own inner needs, values, and worldviews. At the same time, they work more collaboratively towards the shared vision, values, and goals of the whole (alliance mindset).
We can begin to see similar important aspects of empowerment that need to be taken into consideration in creating healthy, sustainable communities, networks, and complex systems.

As systems continue to grow, develop, share power and control, and become more empowering, they develop higher levels of complexity and consciousness. Myss (2004) helps us to understand empowerment in this process. “The truth is that the more you empower others, the more powerful you become” (Myss, 2004, p. 44).

**Freedom to Choose**

Wheatley (2005) has worked closely with Capra drawing on the principles of living systems in her work. Wheatley explains:

We never succeed in…telling people how they must change. We do not succeed by handing them a plan or pestering them with our interpretations, or relentlessly pressing forward with our agenda….It is impossible to impose anything on people. If leaders refuse to believe this and go ahead and make plans for us, we do not sit by passively and do what we are told. We still get involved but from the sidelines, where we have been told to sit and wait. We get involved by ignoring, resisting, or sabotaging all plans and directives that are imposed on us to find these solutions; the system has to connect more to more of itself. (pp. 105–106)

Harris (2008) encourages us to come to a new paradigm of leadership in education and distributed leadership. She quotes from Capra, Senge, and Wheatley and encourages us to move away from the traditional models of leadership. Harris talks about moving from mechanistic to organic leadership and how leadership of the future will be concerned primarily with participation and relationships. Hargreaves and Shirley (2012) remind us in *The Global Way* that “all reforms have theories of change” (p. 4). They describe the *Fourth Way* where leadership is “about collective responsibility rather than vertical accountability” (Hargreaves & Shirley, 2012, p. 9). What comes back again and again is the need to think more deeply and become more self-aware and conscious about the purpose of education and how we can engage all leaders in this discussion.

Fullan (2011) identified four effective drivers for whole systems reform. He also discusses drivers that do not support system motivation and recruiting.

The right drivers – capacity building, group work, instruction, and systemic solutions – are effective because they work directly on changing the culture of
school systems (values, norms, skills, practices, relationships); by contrast the wrong drivers alter structure, procedures, and other formal attributes of the system without reaching the internal substance of reform and that is why they fail.

This distinction is critical because the evidence is clear: the wrong four drivers de-motivate the masses whose energy is required for success; the right four drivers do the opposite. Countries that are successful (increasingly on a sustained basis) have figured this out and will only get stronger. All systems need to shift toward the right constellation of drivers because this will give them success, and will result in global advances. (p. 3)

**Implications of the Literature Review for Curriculum and the Education System**

Through my doctoral studies in curriculum, I examined the curriculum and the education system as a whole. This inquiry highlighted many important relationships to curriculum and the current study. Some areas considered include:

1. the importance of continuous, deep learning for teachers and administrators in relation to personal meaning, purpose, relevance, and lived experience (Cole & Hunt, 1994; Cole & Knowles, 2001; Connelly & Clandinin, 1988; Eisner, 2004; J. Miller, 1996, 2006);

2. the role of critical thinking and intellectual stimulation (Leithwood & Aitken, 1995); increased consciousness, ecological sensitivity (Barab & Roth, 2006; Greene, 1971; J. Miller, 2000, 2006); and social learning processes in promoting optimal health, well-being, and continuous learning in our curriculum and our education system (Lena & Bengt, 1998);

3. the importance of authentic and meaningful sharing and redistribution of power, control, and knowledge (Ellsworth, 1989; Foucault, 1974, 1977, 1990; Freire, 1970; Sandoval, 2000); through new emerging forms of distributed leadership for teachers and administrators (Burns, 1978; Dahl, 2010, Harris, 2003, 2005, 2008; Leithwood et al., 2009; MacBeath, 2005, 2007; Pearce & Conger, 2003; Spillane, 2006; Vroom & Jago, 1998);

4. the essential nature of empowerment and its role in promoting optimal levels of health, well-being, and continuous learning for teachers, administrators, and the
education system as a whole (Marks & Louis, 1999; Raeburn & Rootman, 1998; Wallerstein, 2006);

5. the ecological, spiritual and systemic nature of health, well-being, and continuous learning that highlights the connectedness, interdependency, and sustainability of individuals, the education system, and our ecosystem (Capra, 1982, 1996, 2002; Dahl, 2010; Gross, 1997; Hancock, 1993, 2000, 2011; Hargreaves & Fink, 2006; Maller et al., 2005; J. Miller, 2006; St. Leger, 2003; Stanley, 2006; Stokols, Allen, & Bellingham, 1996; Stokols, Pelletier & Fielding, 1996);

6. the importance of addressing social justice, equity, and race in relation to our curriculum, schools, and the broader society (Anderson, 2005; Bannerji, 2000; Carr & Klassen, 1997; Fanon, 1967; Goodlad, 2004; McCarthy, 2004);

7. the need to increase our understanding of the values, purpose, and hidden curriculum in our school systems (Apple, 1993, 2004; Contenta, 1993; Eisner, 2000, 2001, 2004); and

8. the important role of curriculum, schools, and the school system in systems change and sustainability, social change processes, action competency, and the curricular, social, and civic lives of students, teachers, and administrators (Anderson, 2005; Eisner, 2000; Fullan, 2006; Hargreaves & Fink, 2006; Jensen & Simovska, 2005; Jensen et al., 2005).

We are moving to a greater appreciation of complexity, self-organization, and the interrelated nature of all living systems. “In self organizing systems, order comes from the actions of interdependent agents who exchange information, take actions, and continuously adapt to feedback about others’ actions rather than from the imposition of an overall plan by a central authority” (Osborne & Hunt, 2007, p. 343 in Leithwood et al, 2009, p. 6). At the same time our society and our education systems still emphasize hierarchical structures, externalization of power and control, standardization, testing, control of teachers, standardized learning curriculum, and quantitative outcome based measurement. Increasingly, educators are using more traditional business measurement practices.
There is a major tension and paradox as we begin to envision the need for a more creative, evolving dynamic systems approach to many aspects of our work and lives. There is an increased appreciation that our schools and our curriculum need to become more open, flexible, holistic, and self-organizing. We need to draw on both the rational and intuitive, quantitative measurement and imagination, and develop a growing appreciation of creativity and connectedness (Eisner, 2004; J. Miller, 1996). This involves a new way of viewing curriculum through a lens of holism, ecology, and systems (Eisner, 2000; Fullan, 2006; Hargreaves & Fink, 2006; J. Miller, 1996).

Curriculum and the education system play a significant role in creating a society that reflects many of the diverse values of an ecological, holistic systems approach to health, well-being, continuous learning, and sustainability. This involves encouraging people to think critically and creatively; have multiple forms of literacy; learn how to collaborate, share power, control, and knowledge; develop compassion for others; promote diversity; and work towards ensuring social justice and equity. Our education system plays a major role in developing a society that highlights the interconnectedness and interdependency of optimal health and well-being of people working together to ensure a sustainable future (Ontario Ministry of Education, 2007).

As we take a more ecological, holistic systems approach to curriculum and schools we will begin to think more deeply about developing a whole child, teacher, and society. We will begin to link the silos and create a system that can think about and create health and well-being. We will begin to address and create healthy children and adults in healthy workplaces in a healthy society.

**Systems and Complexity Approaches in Research**

In this research, as outlined in the next chapter, I drew on an ecological, holistic systems approach. Many researchers in diverse fields are beginning to recognize the value of diverse systems and complexity approaches to understanding and studying complex phenomena. To ensure that the foundations of this approach are adequately outlined, I want to briefly explain a few key ideas. In reviewing the literature in this area, I identified a number of key studies and
approaches that help us to begin to see the breadth and use of these new systems theories and frameworks for research and evaluation.

Complexity science reframes our view of many systems which are only partially understood by traditional scientific insights. These shared patterns of behaviour provide insights into health, well-being, sustainability, and innovation (Zimmerman, Lindberg, & Plsek, 1998).

Capra (2002), in *The Hidden Connections – A Science for Sustainable Living*, explains how massive complex systems permeate almost every aspect of our lives. He talks about appreciating organizations as living systems and explains how this is reflected in emergent forms of leadership, organization, learning, and research through studying social networks, communities of practice, the emergence of novelty, and the underlying principles of sustainability. In my meetings with Capra (personal communication, March 2008, August 2008, October 2009, November 2009, September 2011), I was able to learn more about the underlying principles of living systems and how these apply to my own research.

Olson and Eoyang (2001) provide a pragmatic and helpful way to understand both design and emergence in human dynamic systems. They state: “in a complex adaptive world, multiple interdependencies…and the flow of power moves every which way at the same time. Change cannot be a simple top-down process” (p. 28). Olson and Eoyang believe the organization can tip towards being over constrained or under constrained. The role of formal leaders is to set the containers, focus on significant differences, and foster transforming exchanges. I took a course with Glenda Eoyang in *Human System Dynamics* (2009) and dialogued with her (personal communication, February 2009, May 2009, July 2009, May 2011). I can see how her model is helpful in understanding complex adaptive systems.

Hargreaves and Shirley’s thinking in *The Fourth Way* (2009) and *The Global Fourth Way* (2012) provides some important insights into the complexities of change in education systems in Ontario and internationally. In *The Fourth Way*, they highlight “Four Catalysts of Coherence” including: sustainable leadership, integrating networks, responsibility before accountability, and differentiation and diversity. In the *Global Fourth Way* (2012) they emphasize the need to be “working [emphasis original] with paradox rather than striving for sameness and standardization” (p. 177). They also remind us

All reforms have theories of change…. These theories of change can be explicit or implicit, intentional or assumed…. Standardized reforms encompass common standards and curricula; high stakes testing, and a range of mechanisms to ensure fidelity and compliance…. Those who want to innovate rather than merely improve, try to create platforms of resources and support…. so that people can make changes for themselves. (Hargreaves & Shirley, 2009, pp. 4–5)

Harris (2008) in her work in distributed leadership in the education system draws on Capra, Wheatley, and Senge’s work in living and learning systems. She recognizes the need to shift our worldview and approach from mechanistic to organic systems change. Harris talks about future forms of leadership and new organizational forms (Harris, 2008, pp. 149–150). She also highlights the work of Imparto and Harari (1994) who promote “jumping the curve” which requires shifting from stabilizing to innovating (Harris, 2008, pp. 142–143) which is essential in healthy living systems.

Sterman (2006) in *Learning from Evidence in a Complex World* expands on many of the barriers we face in trying to expand our capacity to learn using a systems approach and perspective particularly in relation to developing a deeper understanding of double-loop learning. Argyris and Schön (1978) have documented the defensive routines people rely on, often unknowingly, in interpersonal interactions. “We avoid publicly testing our beliefs, and we are not open to having our mental models challenged…. Because error is often costly and many decisions irreversible, the need to maintain performance often overrides the experimentation needed to learn” (Sterman, 2006, p. 14).

A monograph entitled *Greater Than the Sum of the Parts: Systems Thinking in Tobacco Control* (Best et al., 2007) was completed for the National Cancer Institute, United States Department of Health and Human Services. The monograph offers an overview on many of the
diverse programs, policies, interventions, advertising campaigns, community mobilization strategies, and political actions that were taken in concert to mobilize an effective tobacco control program/strategy. These researchers are beginning to use systems approaches for application into research into a broad range of public health challenges.

In the health promotion field there are a small number of researchers who are beginning to draw on ecological systems thinking and research approaches to learn more about the challenges of creating large scale systems change in organizations locally, nationally, and internationally. Some of these researchers include Best (2011), Best et al. (2003), Best et al. (2007), Best et al. (2009), Dooris (2004, 2006, 2013), Hancock (1993, 2000, 2011), Jones and Barry (2011), Kickbusch (1989, 1990, 1996, 2003), Naaldenberg (2009), Norman (2009, 2011), Riley and Best (2012), and Rivett (2005).

A recent study by Keshavarz, Nutbeam, Rowling and Khavarpour (2010) examines the implementation of health promoting schools in Australia, with a focus on learning more about schools as social complex adaptive systems. In their study semi-structured interviews were conducted with 26 principals and teachers in 18 primary schools. The study identified 10 characteristics of complex adaptive systems which the researcher termed social complex adaptive systems. “These insights may, in turn, lead us to adopt more sophisticated approaches to the diffusion of new programs in school systems” (p. 1467). Systems and complexity approaches in research are new and very important to the concept of health, well-being, and sustainability across a number of diverse fields. Researchers are learning new ways to “focus on the multi-layered, complex interactions that create or limit health and well-being” (Norman, 2009, p. 868). Their ways of thinking have been significant in my work to this point and it will be interesting as we begin to bring together research from across a number of diverse fields to address student achievement and well-being and examine some of the complex interrelationships that create health promoting, continuous learning, sustainable systems.
CHAPTER 3: METHODOLOGY

As noted in the previous chapter, the study of complex systems is an emerging area of research. In this study, a qualitative purposive research design and methodology allowed me to focus on and learn more about this complex, systemic, and interrelated phenomenon (a health promoting, continuous learning, sustainable system) that is in its infancy in terms of research. This type of research methodology is appropriate “where not enough is known about a phenomenon for standardized instruments to have been developed (or even to be ready to be developed)” (Patton, 2002, p. 33). My research questions focused on asking *how, why, and what.*

1. Why and how do the top three most influential system environments (leadership, a culture of continuous learning, and interrelatedness of work and life) promote optimal health, well-being, continuous learning, and sustainability for individuals (teachers, principals, supervisory officers) and the school district as a whole? (How and Why?)

2. What are the principles, patterns, relationships, and synergies that are integral to creating a health promoting, continuous learning, sustainable system? (What?)

3. Is there one or possibly two system environments that might be a major *enabler(s)* for significant systems change towards creating a health promoting, continuous learning, sustainable system? (What?)

My research was guided by a conceptual framework and underlying principles identified through a comprehensive literature review, preliminary interviews, and consultation with external key experts in this area (Figure 1, p. 7). There was not, however, a significant amount of empirical research that related specifically to the complex interrelationships of these system environments. Qualitative methodology, guided by my preliminary conceptual framework, allowed me to frame the exploratory questions, make sense of the qualitative data, and to further refine the conceptual framework.

This research methodology and design also provided an opportunity to use a developmental and emergent approach to collecting the data from diverse stakeholders, inside and outside the education system, in an iterative inquiry process. For example, the use of open-ended interviews was helpful in gathering important data from external key experts from diverse fields about underlying principles, patterns, and synergies relevant to this study.
Alignment With My Own Strengths, Approach and Ontology

A qualitative methodology is consistent and in alignment with my own research approach and ontology as outlined in Chapter 1. In this research study, I was able to build on my own skills and strengths. I learned through inquiry, discovery, and reflection. I embraced complexity and asked questions, while being open to appreciating diverse, complex, and dynamic processes and patterns. This process allowed me to uncover multiple and conflicting data, tensions and paradoxes, opinions, and interpretations in this system. This was also consistent with my orientation to curriculum as outlined in Chapter 1.

This qualitative methodology and design allowed me to draw on and use the most appropriate methods to collect data, analyze the data, and move on to the next stage of using the information gathered. In this way I was able to design a process that built on the strengths of the design and to engage the most appropriate participants at various levels of the system through a number of diverse qualitative methods.

I was able to gather the data required to understand the complexities, relationships, diverse voices, patterns, and synergies of this phenomenon. I was also able to go back and talk with a number of system leaders both internally and externally. This enabled me to further clarify and contextualize the key patterns, principles, and tensions and paradoxes in this complex system, which is nested within other complex systems.

A Ecological, Holistic Systems Approach to Research

My process of learning about different research methodologies in my graduate programs involved taking a range of courses. It also involved consulting with experts in developmental, mixed methods methodology, and qualitative research and evaluation. This provided me with diverse perspectives and orientations to my research. These cumulative experiences helped me to see that a qualitative methodology was very appropriate for a systems approach. I can, however, see that both qualitative and quantitative approaches (mixed methods) could enrich this study.

In the health promotion literature, there has been significant discussion of the pros and cons of both qualitative and quantitative research. It is now generally recognized that an ecological, holistic systems approach which explores interconnectedness and patterns in systems
is helpful in addressing complex interdisciplinary issues and research. A qualitative approach was especially appropriate for this study and in further refining my conceptual framework.

This is a unique research design and methodology. In developing this methodology, I tried to emulate and integrate many of the values and principles of a health promoting, continuous learning, sustainable system including: (a) honoring and listening to the diverse voices of the participants; (b) utilizing double-loop learning and iterative feedback looping with internal and external key informants; (c) using reflection as an ongoing learning process; and (d) moving back and forth between a big picture open systems approach involving appreciating the broader determinants of health which involves synthesis and pattern seeking, and a more detailed thematic analysis of the system environments.

In preparing for this study, I consulted with researchers who had particular expertise and knowledge in key areas of my research design and approach. This consultation included: (a) the use of knowledge lenses to examine various aspects of a health promoting, continuous learning, sustainable system (Morgan; personal communication, October 2008; Capra personal communication, March 2008, August 2008, October 2009, November 2009, September 2011; Wheatley, personal communication, March 2008, November 2009, May 2011); and (b) the use of systems approaches to research (Norman, personal communication, October 2008; Best, personal communication, October 2008; Patton, personal communication, November 2010); Williams, personal communication, November 2007, December 2007; McGuire, personal communication, May 2010, October 2011).

I discovered that there is no right or wrong way to study systems. From a systems perspective, there are diverse opinions, frameworks, and tools that have been developed to conceptualize, collect data (both qualitative and quantitative), analyze, synthesize, and present the findings. I talked with researchers who use different approaches and tools such as computer simulation, network theory, and social network analysis, to name a few. There were people who believe strongly that qualitative research (asking questions and talking with people) is the only way to determine what is happening in a complex system. There were others who believed that we require diverse methods and tools to fully understand complex adaptive living systems.

As a researcher, I have found that one of the most important aspects of an ecological, holistic systems approach to the research is the iterative process of double-loop learning and
reflection. In trying to understand the deeper complexities of living systems, it was necessary to examine the system and its contexts from various perspectives to try to gain a much deeper understanding of the principles, patterns, and synergies that were emerging. It was also important to keep coming back and trying to be aware of the bigger picture patterns and nested systems.

This ongoing learning process allowed me to design an approach to my qualitative research study that specifically addressed my research questions and provided me with ongoing reflective opportunities with key experts in this field including Ardra Cole, Eunice Jang, and Ken Leithwood. In particular my advisor and supervisor Carol Rolheiser, and my committee members, Blair Mascall and Stephen Anderson, played key roles in facilitating this ongoing process of learning. They encouraged me, for example, to take a number of different research methodology courses to broaden my thinking and expertise. I also met in person and talked with a number of experts in this area over the entire research process.

**Context and Setting for the Research**

This study was carried out in one large school district in Ontario (14,000 employees). I pursued my research in this particular education system because it had been focusing its energy and resources for more than 10 years on creating a culture of collaboration and continuous learning. The school district was trying to better understand the diverse patterns of distributed and shared leadership that were emerging at various levels of the system. These efforts were concentrated on enhancing student achievement and outcomes. This school system’s focus provided me with an opportunity to build on previous work and explore how these system environments contributed to the health, well-being, continuous learning, and sustainability of the individuals and the organization as a whole. By choosing a school district where a significant attempt had been made to develop the organization in these areas, I felt there would be rich data to explore the various relationships between health promotion, continuous learning, and sustainability.

Figure 3 frames the qualitative research design and approach taken for this thesis.
Figure 3
Qualitative Research Methodology: Thematic Analysis and Ecological, Holistic Systems Approach

Open-Ended Interviews with Key Experts
- a) refine and confirm the underlying draft principles of a Health Promoting, Continuous Learning, Sustainable System
- b) begin to examine some of the interrelationships between the top three system environments in relation to these underlying principles

Data used to refine conceptual framework and semi-structured interview

Semi-Structured Interviews
Conducted 60 interviews to develop understanding of the top three system environments and their complex relationships

Thematic Analysis of Qualitative Data
- The Diverse Voices

Qualitative Results: Diverse Voices
- a) updated conceptual framework
- b) identified key themes emerging from three system environments
- c) identified synergy point and major enabler

Ecological, Holistic Systems Approach to Qualitative Data

Qualitative Results: Patterns
- a) identification of one major pattern and three sub-patterns
- b) feedback from a small number of external key experts and internal system leaders regarding system patterns

Summary of Findings
- a) 12 major themes emerging from the three system environments
- b) the synergy point
- c) leadership as the major enabler
- d) one major pattern and three sub-patterns
- e) four tensions and paradoxes

Note the colours used to emphasize different aspects of the approach: open-ended and semi-structured interviews (grey), data to refine the conceptual framework (green), thematic analysis/ ecological, holistic systems approach (lighter blue), qualitative results (mauve), and findings (salmon).
This research study provided me with an opportunity to learn from 60 participants working across this school district. The composition of these 60 participants included 32 teachers, 10 principals and 18 district leaders (9 supervisory officers, 4 centrally assigned principals, 1 trustee, 2 managers, and 2 federation/union leaders).

The participants from across this district had been working to create a culture of distributed leadership and a culture of continuous learning and collaboration. They developed many innovative action research projects and initiatives. Many of the participants were also involved in developing extensive international collaboratives and learning opportunities including partnerships with the university, community, and business sectors.

Conducting this research in this school district provided me with an opportunity to develop a deeper understanding of how health, well-being, and sustainability is created and embedded in a large organization.

The research also provided an opportunity for these educators to think about and reflect seriously on a much broader definition of health and well-being, and its complexities from an individual, organizational, and societal/planetary level. This process also provided an opportunity for all participants to develop a greater awareness and consciousness of health, well-being, and sustainability.

In designing this research study, I was able to build on a previous research study that I designed and conducted in Montserrat, West Indies, in 1989. This research study was an action learning/action research study completed under the supervision of Professor David Morley, Ph.D. as part of my Masters in Environmental Studies at York University. I received permission from the Medical Officer of Health in Montserrat to conduct this study and worked closely with him and the Deputy Minister of Health in Montserrat. I interviewed approximately 40 participants from across this one small country/island with a population of approximately 10,000 people. I interviewed government officials, Ministry leaders, social and health professionals, community members, and representatives from international health organizations (PAHO, WHO).

My research questions for the Montserrat study included: “What is health and well-being?” “How can your health and well-being be improved or changed in a positive manner? What would improve your health, well-being, and sustainability?” The research process and the
findings in this research study provided me with valuable data and also helped me to understand the importance of engaging participants from a wide range of roles and responsibilities across a dynamic system. While this research study was conducted in a small country or island, it had approximately the same population as the district chosen for this study.

One of the major findings in the Montserrat study was that the process of conducting research and asking deep questions of participants across the system created increasing levels of awareness and consciousness in relation to their own health and well-being. It also increased their understanding and appreciation of what creates health overall. This research experience informed the design of this research study, as well as many research and evaluation initiatives that I have been involved with over the last 30 years in large communities and organizations - locally, nationally, and internationally.

Studying systems is a complex endeavor, and I have been building on my knowledge and expertise in this area for about 30 years. This includes my original work with individuals and families, studying coalitions, communities, organizations, and doing research at the city, regional and small countries/islands level. I have been interested in trying to understand people’s individual health needs and the complex system patterns related to health, well-being, and sustainability.

**Data Collection Methods and Criteria for Sampling / Selection**

In this research design I used three qualitative research data collection methods:

1. open-ended interviews with eight external key experts with expertise in systems theory, thinking, and practice;
2. semi-structured interviews with 60 participants across this school district; and
3. informal discussions and feedback from eight key informants from inside this school district.

Sampling for this research study was purposive and was “aimed at insight about the phenomenon, not empirical generalization from a sample to a population” (Patton, 2002, p. 40). The sampling strategy was based on identifying people and sites that were information-rich in
relation to the phenomenon of health promoting, continuous learning, sustainable systems (Jang, personal conversation, October 2008, January 2009, October 2010).

**Open-Ended Interviews with External Key Experts**

Open ended interviews were organized involving recognized external key experts with knowledge and expertise in relation to the three knowledge lenses in my framework: health promoting systems, continuous learning systems, and living/sustainable systems. They were also chosen based on their expertise in systems theory, thinking, research, and practice. These types of interviews have also been termed “elite interviewing” and the value of these types of interviews has been widely recognized (Marshall & Rossman, 1999, p. 113).

Use of these three knowledge lenses was based on my studies with Morgan (2006) and his work using metaphors in *Images of Organizations*. I used these knowledge lenses to generate a range of complementary and competing insights that built on the strengths of different views. Senge (1990) also talks about the importance of testing and understanding our mental models of how we see the world (p. 175).

The purpose of the open-ended interviews was to gain a deeper, more holistic understanding of the underlying principles, patterns, and synergistic relationships that are integral to health promoting, continuous learning, sustainable systems. These interviews allowed for diverse and interdisciplinary perspectives and ongoing rigorous reflection on the findings in this study. A number of underlying principles and values were identified through the literature review and through some preliminary discussions and meetings with Capra (personal communication, August 2008); Norman (personal communication, October 2008); and Best (personal communication, October 2008). There was also a need to continue to reflect on the themes/voices, principles and patterns emerging from the data over the course of this study. Having a small network of key experts in the area of systems theory, thinking, research, and practice supported my ongoing research process and allowed me to reflect on a continuous basis as I developed my understanding of the complexities.

Cameron Norman, Ph.D., University of Toronto (personal communication, October 2008) noted that: “while most people do not have a really deep understanding of complexity science
and systems thinking/approaches, there are many people that take a ‘complexity friendly’ approach and are currently developing their understanding in this area.”

I was originally going to use a panel of key experts using conferencing technology for this aspect of the research design. Due to issues related to different time zones, availability, and access to online technology and computers, I decided to use in-person and phone meetings. The external key experts preferred in-person and phone meetings on a one to one basis. In-person meetings with Fritjof Capra (August 2008; September 2011) in Berkeley, California and Glenda Eoyang (personal conversation, July 2009) at ALIA Conference, Halifax, Nova Scotia were particularly helpful in developing my research design and framing the findings from my study.

**Criteria for Selection / Sampling for the External Key Experts**

The criteria for selection of these participants included:

1. extensive knowledge, expertise, insights, and understanding of health promoting, continuous learning, and living/sustainable systems;
2. some knowledge, exposure to and interest in my research;
3. known to have made a significant contribution to the fields of health promotion, health promoting schools, health promoting workplaces, education, systems change, learning organizations, leadership, and business; and
4. willingness to participate and give of their time to this research study.

The package of information sent to participants in the open-ended external key expert interviews included: *Invitation to Participate in the Key Expert Open-Ended Interviews; Overview of the Research; and Preliminary Conceptual Framework.*

**Semi-Structured Interviews With Participants at the School and District Level**

Semi-structured interviews were used at the school and district level. This was done to ensure that the data collection was systematic in its approach. The framework identified a number of major areas to be covered in advance. There were many probes under each area. I

---

5 Please see Appendix D.
used significant flexibility in terms of pursuing specific areas in more depth, focusing on key aspects, and additional time learning more about certain system environments (Patton, 2002, p. 349). “An interview guide is prepared to ensure that the same basic lines of inquiry are pursued with each person interviewed”, the interviewer is able to “explore, probe and ask questions that will elucidate and illuminate that particular subject” (Patton, 2002, p. 343).

Forty-two semi-structured interviews were carried out at the school level. These were carried out in 10 schools (five elementary, five secondary). The principal and three to five teachers were interviewed in each school.

These semi-structured interviews were used to further explore and generate in-depth data about the top three most influential system environments. They were also used to examine the interrelationships between these systems environments. In addition they examined relationships, patterns, and processes within and among these system environments that promote optimal health, well-being, continuous learning, and sustainability for individuals and the whole.

Each interview included asking each participant in the schools to choose which level or pattern of distributed leadership (using Hargreaves and Fink’s Ladder of Leadership Distribution, 2006) they believed their school and school leaders were using. This was done to intentionally focus the participant interviews on the particular forms of leadership with which they were familiar. I was then able to probe more deeply to find out what it was about this form or level of distributed leadership that promoted or did not promote their health, well-being, and sustainability as individuals and for the system as a whole.

**Criteria for Sampling / Selection of the Schools and Volunteer Participation of the Teachers and Principals**

The schools were determined based on the three priority areas: (a) patterns of leadership that were perceived to be health promoting, empowering, distributed and shared power and control; (b) a culture exhibiting qualities of continuous learning; and (c) an interest in and focus on interrelatedness of work and life.

I created a list of criteria and characteristics that would be exhibited in the three system environments in a health promoting, continuous learning, systems. I met with four
superintendents to identify and cluster schools that they felt met these criteria. The list included both elementary and secondary schools. They created a list of six elementary and six secondary schools. The principal of each of these schools was invited by the Chair of the Research Committee to participate in this study. Principals were asked to respond back to me as the researcher on a confidential basis if they wanted to volunteer to participate in this study. Five elementary principals and five secondary principals responded right away and agreed to participate with their schools in this study. The other two schools responded later in the process and I chose to go ahead with the first 10 respondents.

This purposive qualitative sampling strategy involved studying a relatively small number of schools that exhibited specific characteristics (Jang, personal conversation, October 2008, January 2009, October 2010). “The quality of the insights generated is what matters, not the number of such insights” (Patton, 2002, p. 7).

Once the principal agreed to participate in this study, I met with him or her in-person or on the phone to provide him or her with detailed information. We discussed the most effective way to invite the teachers to participate on a voluntary basis in the semi-structured interviews.

Teachers were invited to participate on a voluntary basis. The interviews were organized by the principal and occurred during the day. Schools determined the best organization and timing of the interviews. As the researcher, I was then available to carry out the interviews.

The package of information sent to participants that volunteered for the semi-structured interviews included: Invitation to Participate in the Key Expert Open-Ended Interviews; Overview of the Research; Preliminary Conceptual Framework; and Semi-Structured Interview Questions.

Criteria for Sampling / Selection of the Semi-Structured Interview Participants at the District Level

I asked four members of the senior management team to identify key participants at the district level that reflected diverse perspectives in relation to the major research question: What

---

6 Appendix C is the criteria for selection of schools given to senior leaders.
7 Appendix D is the package of information sent to participants in the semi-structured interviews.
are the system environments that promote optimal health, well-being, and continuous learning for individuals and for the organization as a whole? The following diverse perspectives were sought:

1. union executive perspective (elementary and secondary);
2. management executive perspective (human resources);
3. research perspective (district research office employees);
4. elementary teacher perspective;
5. secondary teacher perspective;
6. systems/strategic thinkers perspective (senior management level); and
7. political perspective (school board trustee).

A list of potential participants at the district level was developed. As the researcher, I made the final decision based on a list of possibilities received from senior management/leaders. At the district level 18 semi-structured interviews of 60 to 75 minutes in length were carried out.

Participants were invited to participate in these semi-structured interviews. Once they agreed to participate, I sent them a package of information including the conceptual framework, the semi-structured interview questions, and the consent form to review prior to the interview.

Informal Discussions With Key Informants Inside This System

I also had informal discussions during various stages of my research with a small number of key informants from inside this school district. These informants had different perspectives, responsibilities, and understandings of systems change. In the early part of my research process, I gathered data from these key informants about the top three system environments and identified potential concepts and principles that contributed to each of these environments. I sought to learn how these environments possibly interrelated with each other to create more than the whole.
This type of open-ended interview is called an “informal conversational interview” (Patton, 2002, p. 349) or “unstructured interview” (Fontanna & Fey, 2000, p. 262). These interviews offer maximum flexibility. While there are broad categories of questions, these open-ended interviews are exploratory in nature and the interviewer can pursue important areas as required.

Data from these informal discussions were used to further refine the conceptual framework, and to further refine the semi-structured interview questions and appropriate probes. I also used the input to reduce the number of interview questions. Later in the process, I returned to talk with a small number of these internal key informants to review the findings of the study and get their perspectives on the overall principles and patterns and to review the tensions and paradoxes emerging from this study. These participants provided additional contextual and historical information in relation to my findings.

**Data Analysis**

The open-ended interviews (external) and the semi-structured interviews (internal) were initially analyzed using thematic analysis which involves inductive analysis to discover recurring ideas and language, patterns, and categories in the data (Marshall & Rossman, 1999).

Using thematic analysis I identified the major themes under each of the top three system environments. I have termed these findings *Diverse Voices*.

In the second iteration of my analysis, I used an ecological, holistic systems approach. I examined the data using the principles and was able to identify patterns, synergies, and potential enablers in this system. I also identified the four tensions and paradoxes. This process produced one major pattern and three sub-patterns and eventually through an iterative process led me to develop my Reflective Framework.

My overall strategy was to use an ecological, holistic systems approach. Patton explains how this is a developmental process requiring the following professional qualities: “methodological flexibility, eclecticism, and adaptability; systems thinking; creative and critical thinking balanced; high tolerance for ambiguity; open and agile”. In addition, he described the need for “teamwork and people skills: able to facilitate rigorous evidence-based reflection to inform action” (Patton, 2011, p. 26).
Asking these kinds of deeper questions about what’s really going on, and questioning basic assumptions about why things are happening….get at the fundamental systems change implications and understandings. That is double-loop learning….Systems thinking, complexity theory, and developmental evaluation together offer an interpretive framework for engaging in sense-making. (pp. 12-13)

Patton (2011) emphasizes that “interpretation of data requires social interaction to make meaning. We interact not only with the data but with each other. Thus knowledge is socially constructed….Reality testing and shared truth in an evaluation emerge from dialogue and deliberation” (House & Howe, 1999, 2000 as cited in Patton, 2002, pp. 143-144). Patton (2011) also calls us to pay attention to what Stacey has observed in systems:

He calls our attention to the importance of understanding and tracking how people in organizations are making sense of what is going on as they interact, share views, argue, and in many different ways both overt and subtle, influence each other and the whole organization toward a social construction of their shared reality. These are the complex responsive processes that he highlights. (p. 143)

Much of this thinking, as well as personal conversations with Fritjof Capra (personal communication, March 2008, August 2008, September 2011) and Meg Wheatley (personal communication, November 2009, May 2011) helped me to gain a deeper appreciation of the principles of living systems and a deeper understanding of how we see and understand patterns in living dynamic systems.

I had originally identified nine draft principles which were central to my ecological, holistic, systems approach. Through this approach to the data, I was able to reconceptualize these nine principles and as well identify three new principles. I spent a significant time reflecting on these principles and identifying the patterns that were being created and co-created across this system. I identified these patterns and went back to a small number of internal key informants in this system, as recommended by Wheatley (personal communication, November 2009, May 2011). This allowed me to share these patterns and get their feedback. I gained information that helped me to better understand the contextual, historical, and nested aspects of these patterns.

During my in-person meetings with Fritjof Capra, I reviewed my final 12 Principles. I kept an extensive journal of the system analysis and synthesis process so that I could use it as a reflective learning process. Capra helped me to consolidate my thinking and to organize them by
ecological and human social system principles. As this is an emerging research area, I wanted to be open to new and conflicting interpretations of the data and get feedback from the very people working in this living complex system. I wanted to balance creativity and structure in my approach to the data analysis and synthesis process. I am confident that I accomplished this through the iterative process I used.

Having completed both the inductive analysis (thematic) and using the ecological, holistic systems approach, I identified: (a) 12 themes with sub-themes coming out of the data from the three system environments; (b) the synergy point of the three system environments; (c) one major pattern and three sub-patterns; and (d) four tensions and paradoxes. I also developed a Reflective Framework to describe and help others understand the patterns coming out of this study.

I have termed this ongoing reflective and iterative process systems reflection-in-action. I collected the data, analyzed it through both an inductive and systems analysis, and gained insights as I talked with external key experts. I also consulted back and forth getting feedback from a small number of internal system leaders in this school district. This provided me with a process for asking deep questions about what was really going on in this system, and identifying deep patterns that were being created that can promote or take away from the health, well-being, and sustainability of the individuals the system as a whole.

**Limitations of the Study**

A limitation of this study is the dominant focus on the internal environment. It is important to recognize that both the internal and external environments play important roles in creating a health promoting, continuous learning, sustainable system. The external environment had significant influence on the health, well-being, and sustainability of individuals and the organization/system. This study, however, focused specifically on the internal environments.

This study was limited to a Western, North American, and European orientation to schools and workplaces. Most of the studies referenced in the literature review were from North America, Europe, and some from Australia.

This study was also limited as the research particularly focused on the professional learning community staff (teachers, principals, and district leaders) within one large education
system. Professional learning community staff is defined as people trained/educated professionally as teachers in various roles/responsibilities throughout the system. Due to limited resources and time, this study did not involve the participation of the other staff in this workplace such as caretakers, support staff, or the student population.

Sampling for this research study was purposive and was “aimed at insight about the phenomenon, not empirical generalization from a sample to a population” (Patton, 2002, p. 40). The sampling strategy was based on identifying people and sites that were information-rich in relation to the phenomenon of health promoting, continuous learning, sustainable systems.

This sampling method provided me as a researcher with quality insights and rich data in relation to my specific research questions and phenomena. Patton explains that when we use a purposive approach to the sampling, you may not be able to generalize the findings.

**Ethical Aspects of this Study**

The ethical review submission for the University of Toronto was approved for this research study. It included the following: (a) a rationale for the research – purpose and background; (b) description of the methods – including settings and types of information involved; (c) participants or data subjects – who the participants are; how they will be recruited; (d) collection and use of personal information; (e) a short description of the risk and benefits of this proposed research study; (f) the consent process; and (g) a discussion about confidentiality.

**Collection and Use of Personal Information From the Interviews**

Participants who volunteered to be involved in the semi-structured interviews were asked to complete a form asking for some personal information including some general demographics: age, sex, time working in the system, and role/responsibility in the system. Completion of this form was voluntary. All individual identities remain confidential. This information was used for descriptive purposes only.
The Consent Process

Appendix D includes the letters of invitation and information for the semi-structured interviews with the internal participants. In this letter participants were informed of their right to withdraw from the study and the procedures that would be followed if they decided to withdraw. None of the participants withdrew from the study. The representative from one of the teacher unions did not respond to the request for an interview.

Risk / Confidentiality

All participants were invited to participate on a volunteer basis. While the research asked participants to think about the system environments at work that have the potential to optimize their individual health and well-being, it was up to the participants to decide how much information and level of detail they wished to provide to the researcher. The names of all of the participants and schools will remain confidential; each was given a pseudonym/code name.

All data including notes, audio recordings and any transcripts have been secured by the researcher in a locked facility. Electronic files have been stored in files accessible only to the researcher. Access to hardware containing information regarding the study, as well as printed information, has been kept in a secure facility. Only the researcher and the research supervisor will have access to primary data.

School board administration was not given any information identified by participants or specific schools. There will be a final summary report that will be shared with the district and it will be available to all staff upon request.

There were no apparent risks to participation in this study. Participation in this research was reasonably expected to be no greater than that of everyday life. The research focus on health promoting, continuous learning, sustainable systems required reflections of participants on their own experiences and did not change the normal interactions occurring in a school or workplace.

Within five years of completion of this study, paperwork will be shredded and all electronic files deleted.
Possible Benefits

There are potential benefits for the health promotion, education, and organizational fields in relation to this study. There are also potential benefits to the scientific/scholarly community and society. A greater understanding of what creates health, well-being, and sustainability in large organizations could be very helpful in addressing workplace health and well-being. Additional information about the interactions and implications of certain forms of leadership, culture, and other system environments on the health, well-being, and sustainability of people and organizations provides valuable data to inform future priorities and actions related to everyday life settings.

Creating system environments that promote the health, well-being, continuous learning, and sustainability of employees may also contribute to creating healthier, more productive workplaces. In the education system, this may ultimately contribute to achieving the goals of student achievement and well-being. There are also potential benefits to respondents as their opinions and input will help to shape the environments they desire for the future. This feedback can be part of an empowering process of providing opportunities for teachers, principals, and district leaders to increase control over their own health and well-being which in itself is a health promoting process.
CHAPTER 4: FRAMING THE ANALYSIS AND FINDINGS

The analysis and findings of this study have been organized into two chapters – Chapter 5: Diverse Voices and Chapter 6: Patterns. A summary of the findings in relation to the principles is discussed in Chapter 7: Summary of Key Findings, Implications, and Contributions.

12 Principles of a Health Promoting, Continuous Learning, Sustainable System

In an effort to properly frame the material presented in Chapter 5 and Chapter 6, I would like to offer a brief description of the important role that the 12 Principles of a Health Promoting, Continuous Learning, Sustainable System played in my work. These principles are framed in detail in Chapter 2, Literature Review and are listed in Figure 2 (p. 29).

Connecting the themes, sub-themes, principles, and levels of this study is very important and foundational to the systems approach resulting in the findings in this thesis. The ecological, holistic, systems approach used in this study reflects the multidirectional complexity and dynamic interplay among factors that operate within and across levels ranging from macro (societal/global) through to the micro (individual). This approach recognizes the interwoven relationships and synergies between the individual and their environments.

The 12 underlying principles are a significant underpinning of any living system. To understand deep patterns and complex, recurring relationships among ideas and experiences beneath the surface in living systems, the principles play a very significant role.

I began by using the principles to examine each of the three System Environments - Leadership, a Culture of Continuous Learning, and Interrelatedness of Work and Life. Early in the process, I was able to see the significant influence of many of the principles in each of the three system environments. I discussed this with Capra (personal communication, May 2008, August 2008, October 2009, September 2011) and Wheatley (personal communication, March

Appendix E is a table: Connecting the Themes and Sub-Themes from the Diverse Voices and the 12 Principles of a Health Promoting, Continuous Learning, Sustainable System.

Appendix F is a table: Connecting the 12 Principles of a Health Promoting, Continuous Learning, Sustainable System and Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability.
September 2008, November 2009, May 2011) who agreed that all of the principles would emerge through each of the three system environments. Through the examination and holistic systems approach I found that while all of the principles emerged and were deeply embedded in each of the three system environments, there were certain dominant principles in each of the three system environments. Principle 10: Meaning, Purpose, and Consciousness was evident across all three system environments, just as it was identified as the synergy point in the thematic analysis. In the interview process, I asked the participants: “What is holding this system together for you and the organization?” The majority of the participants responded using some of the following terms: purpose, shared meaning, coherence, consciousness, deep intrinsic value and meaning, life purpose, congruent values, and vision. I have termed this finding the Synergy Point: Meaning, Purpose, and Consciousness.

The 12 Principles help us to gain an in-depth understanding of how and why health is perceived, appreciated and can be created and co-created in relationship, and how certain patterns can be more health promoting than others and also promote continuous learning and sustainability. The principles also help us to understand the dynamics of living complex systems.

In System Environment 1: Leadership the most dominant principles include: Principle 1: Open Systems Nested Within Open Systems; Principle 3: Relationships; Principle 4: Communities, Collaboratives, and Networks; Principle 5: Diversity of Ideas, Cultures, Worldviews, and Knowledge; Principle 9: Emergence and Design; and Principle 12: Sharing Power, Control, and Empowerment.

In System Environment 2: A Culture of Continuous Learning the most dominant principles include: Principle 1: Open Systems Nested Within Open Systems; Principle 3: Relationships; Principle 4: Communities, Collaboratives, and Networks; Principle 5: Diversity of Ideas, Cultures, Worldviews, and Knowledge; Principle 7: Flow; Principle 8: Growth, Development, and Learning; and Principle 9: Emergence and Design.

In System Environment 3: Interrelatedness of Work and Life the most dominant principles include: Principle 1: Open Systems Nested Within Open Systems; Principle 2: Interrelatedness; Principle 3: Relationships; Principle 4: Communities, Collaboratives, and Networks; Principle 6: Dynamic Balance; Principle 7: Flow; and Principle 11: Loss, Change, and Letting Go.
At this stage of my reflection and systems approach I looked across the three system environments at the bigger picture patterns and relationships. I began to see some of the patterns manifested across all three system environments. This involved looking at the larger contexts to understand how the systems were nested.

Chapter 5: Diverse Voices and Chapter 6: Patterns

Chapter 5: Diverse Voices reports the results of a thematic analysis of the data collected. In this study, themes are groupings of recurring ideas through a systematic analysis of the participants’ subjective experiences. Over 100 quotations are used to illustrate the participants’ reflections on the subjective phenomena of health, well-being, and sustainability in relation to the three System Environments - Leadership, a Culture of Continuous Learning, and Interrelatedness of Work and Life in this school district. This chapter also explores some of the major challenges, limitations and areas for further consideration.

After completing a thematic data analysis as discussed in Chapter 5: Diverse Voices, I used an ecological, holistic systems approach to the data. I was able to identify the major system pattern which led me to develop a Reflective Framework, and then identify three sub-patterns in the data. I was then able to discover four tensions and paradoxes occurring in this system. These findings are outlined in Chapter 6: Patterns.

Chapter 6: Patterns provides a much broader perspective that also takes into account the context, the relationships across systems and sub systems, and how systems are nested within and under other systems. This ecological, holistic systems approach also identifies some of the broader contextual, political, historical issues and challenges that were significantly influencing this school district in particular, but also the education system in Ontario. Changes in political parties, ministry directives, resources, societal beliefs and values about education, economic shifts, union relationships and negotiations are all major influences that were briefly discussed. They were not the focus of this research but did come out in the data to some extent.

As a result of these analyses, I began to ask myself many questions about consciousness and returned to talk with external system theorists and revisited the literature. In the process, I began to more fully appreciate that other theorists and thinkers are also beginning to see these different levels, waves, patterns, and spirals of consciousness (Beck & Cowan, 1996; Kegan,
1982, 1994; Maslow, 1954; Schlitz et al., 2010; Wilber, 2006). Through reflection and exploration of ideas from this study, I built on their extensive work and developed my own Reflective Framework which is a primary outcome of this study. I have entitled this the *Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability* (See Figure 5, p. 171).

My Reflective Framework reveals that as the complexity and consciousness of the leadership spirals upwards, there is a higher level of differentiation and integration which is related to higher levels of consciousness in *leadership, a culture of continuous learning, and interrelatedness of work and life*. All levels are nested within each other and function in a hierarchical, recursive, looping pattern that work synergistically as a whole (Bateson, 1973, as discussed in Tossey, 2006).

Through my Reflective Framework, I began to see that a health promoting continuous learning sustainable system must find a way to hold all of its diversity together. This requires creating a conceptual and emotional space where awareness and interaction can occur and where leaders are able to hold all of the conflicting tensions and paradoxes together. This space will require organizations and leaders to develop a much higher tolerance for ambiguity, be willing to be disturbed, appreciate diverse worldviews, and ensure time to think deeply and reflect.

As you review the next two chapters, you may want to think about your own health, well-being, and sustainability and the broader systems that you are nested within – your family, workplace, and community. Consider as well how we can develop our own unique consciousness or awareness of health, well-being, and sustainability. How are we creating health, well-being, and sustainability every day in our work and life, locally, nationally and globally? Are we coming to a greater awareness that our individual health, well-being, and sustainability is interrelated with that of our planet?

A summary of the findings in relation to the 12 principles is discussed in *Chapter 7: Summary of Key Findings, Implications and Contributions*. 
CHAPTER 5: DIVERSE VOICES

Chapter 5: Diverse Voices is a thematic analysis of the data collected. Themes group recurring ideas through a systematic analysis of the participants’ subjective experiences. As health is a relational process, Chapter 5 provides quotations to illustrate the participants’ experiences of the subjective phenomena of health, well-being, and sustainability in relation to the three System Environments - Leadership, a Culture of Continuous Learning, and Interrelatedness of Work and Life in this school district. This chapter also explores some of the major challenges, limitations and areas for further consideration.

The fundamental commitment to valuing and representing participants’ voices that guided this research study is validated in this chapter in the diverse and insightful comments of the participants. This school district had been working for more than 10 years to develop a culture of distributed leadership, continuous learning, and collaboration. The participants were therefore very aware of many of the topics discussed in the interviews and able to offer rich insights. They were also able to convey the degree to which they themselves believed they were functioning in a health promoting environment or system. This is the value of purposive research. Also a sophisticated use of educational terminology in regards to these topics was exhibited in their interview responses.

Figure 4 (p. 100) frames the three system environments and related themes from the findings and the synergy point of a health promoting, continuous learning, sustainable system. Figure 4 is used as an anchor figure throughout Chapter 5. Each section begins with a similar illustration to assist with clarity about the organization of the sub-themes. Note the Synergy Point: Meaning, Purpose, and Consciousness, is the intersection of all three system environments.
Figure 4
Diverse Voices: The Three System Environments, Twelve Themes, and the Synergy Point

LEADERSHIP
*The Enabler*
1. Appreciation of Human Spirit and Respect for All Life
2. Authentic Sharing of Power and Control Through Empowerment
3. Diverse Voices and Meaningful Input into Decision-Making

CULTURE OF CONTINUOUS LEARNING
1. Diverse Ways of Knowing
2. Embedding Learning into Ongoing Processes and Relationships
3. Creativity, Risk Taking, Innovation, and Appreciation of Resources
4. Learning as Ongoing Reflective Process and Practice

THE SYNERGY POINT:
Meaning, Purpose, and Consciousness

INTERRELATEDNESS OF WORK AND LIFE
1. Self-Awareness - Know Yourself, Values, Worldview, and Strengths
2. Finding Balance Through Approaches to Change and Structures
3. Life Stages and Generational Differences
4. Awareness and Service to the Whole: Empathy, Forgiveness, Ecological, Spiritual, and Global Awareness
5. Appreciation of Loss, Change, and Letting Go.
System Environment 1: Leadership

Three major themes emerged from the data in relation to leadership that promotes optimal health, well-being, continuous learning, and sustainability. The following shows the major themes and sub-themes from System Environment 1: Leadership.

LEADERSHIP
The Enabler

THEME 1: Appreciation of Human Spirit and Respect for All of Life
- Human Spirit
- Developing a Deeper and Broader Appreciation of Health
- Qualities and Values Reflective of Health, Well-Being, and Sustainability
- Healthy Attitudes of Openness, Genuineness, and Authentic Listening

THEME 2: Authentic Sharing of Power and Control Through Empowerment
- Distributing Leadership Through Authentic Valuing
- Shared, Servant, and Situational Leadership
- Empowerment, Choice, and Authentic Sharing of Control
- Organizational Fit, Coherence, Reward, and Recognition

THEME 3: Diversity, Voices and Meaningful Input Into Decision-Making
- Diversity is Synergistic
- Concerns Related to Lack of Meaningful Input Into Decision-Making
In the package provided for the semi-structured interview process, I provided different definitions of leadership for the participants: shared leadership, distributed leadership, and health promoting leadership. I view the terms shared and distributed as very similar and therefore have generally used the term distributed leadership in reporting the findings. This is the term that most of the participants used and the one with which they were most familiar.

The findings indicate that there were significant differences in leadership patterns and values across this school district. While the district leaders promoted distributed leadership and discussed it extensively in this organization, there was no preferred model, and no common or agreed upon approach or underlying values of distributed leadership reported. The patterns of leadership across this district ranged from top-down/planned/improvement patterns to collaborative/adaptive patterns, to more emergent/curious/generative patterns, along with some integrative/holistic/complex patterns. These patterns are described in my own Reflective Framework and discussed in Chapter 6. See Figure 5, p. 171. These diverse patterns of leadership exhibit very different values, worldviews, and consciousness to systems change and to individual and organizational health, well-being, and sustainability.

Most of the participants reported that leadership patterns ranging from collaborative/adaptive, to emergent/curious/generative, and integrative/holistic/complex had the greatest potential to create health, well-being, continuous learning, and sustainability for individuals and the organization. Many of the participants in this study reported that healthier patterns of distributed leadership created conditions where people felt safe; where they could be open, authentic, and really be themselves; feel cared for; speak up and voice their diverse opinions; and where they were also challenged to grow.

Leaders who developed this more open pattern of distributed leadership paid attention to and recognized the synergy between two important aspects – the inner meaning, purpose, values, and higher calling of the individual; and the shared values, purpose, and higher calling of the organization.
Attention to this key area allowed for and promoted synergy involving higher levels of both differentiation and integration, thus leading to higher levels of complexity and consciousness. This is a very important finding in this study.

This synergy was not created in environments where the leadership mainly focused on the organizational outcomes and performance at the expense of, or ignoring, the individuals core values, meaning, and purpose. In such environments, participants described feeling devalued, disengaged, disempowered, and experiencing a lack of voice, connection, and aliveness. They reported that their own personal values and needs were not being cared for or addressed. This non-synergistic pattern was reported in only a very few areas of this school district and influenced only a small number of the participants in this study. In these areas, the leadership pattern was more organized, top-down, and authoritarian. Participants reported that a few leaders at the district and ministry levels were using their formal power to impose values, direction, and priorities on individuals, panels, and in some cases the organization as a whole.

The three themes describe many of the positive aspects of health promoting and sustainable leadership patterns that were evident in the majority of schools and the broader school district. As in all healthy and reflective environments, there were some concerns raised. My discussion of the themes also recognizes the larger context of this study and some of the significant changes occurring in education in Ontario, particularly in this school district. Two topics in this broader context relate to ministry policy and collective bargaining.

**Theme 1: Appreciation of Human Spirit and Respect for All of Life**

Appreciation of Human Spirit and Respect for All of Life refers to engaging the passion and inner motivation of people. This allows emergent qualities, diverse gifts, and healthy relationships to create shared vision, values, and purpose.

It is important to remember that health is a process, a creation, and a pattern of relationships. It is primarily a dance of interacting parts. It is a pattern of relations rather than quantitative outcomes – an asset model of health potentials inherent in social settings and systems of everyday life. (Kickbusch, 1989). It is dynamic, interconnected, and characterized by interrelationships and synergies (Capra, 1982, 1996, 2002). It is a process of enabling individuals and communities to increase control over the determinants of health and thereby
improve their own health (WHO, 1986). Health and sustainable development are not only interdependent but reciprocal (Kickbusch, 1989). How can we begin to understand health as a process, as a pattern of dynamic interrelationships, as synergy, as increasing complexity and consciousness, and as a pattern of open design and emergence?

**Human Spirit**

Human spirit, wholeness, and respect for life are foundational to health promoting sustainable leadership. While the participants did not use the term *human spirit*, they described many of the qualities and emergent properties of human goodness, inner power, passion, character, virtues, and an overall respect for all of life. They reported how their life was connected and interrelated to the life of all other people, nature, and the planet. I have chosen the term human spirit to describe the human qualities that are emerging in this healthy, sustainable system, as well as how these qualities and deeper life forces are required to address important aspects of the education system, our society, and our planet.

“Human spirit” is defined by Teske “a social construct representing the qualities of purpose and meaning which transcend the individual human” (Wikipedia, n.d.). Margaret Somerville, Director - Centre for Ethics, Medicine and the Law, McGill University, expands on the term human spirit as a natural inherent characteristic common to all humans:

The intangible, immeasurable, numinous reality that all of us need to find meaning in life and make life worth living – a deeply intuitive sense of relatedness or connectedness to all of life, especially other people, to the world, and to the universe we live in. One manifestation of the human spirit or human spirituality is the longing for transcendence – the strong desire to experience the feeling of belonging to something larger than ourselves. (Somerville, 2006, pp. 7–8)

Hargreaves and Shirley (2009) relate this need for attention and respect to a greater purpose, particularly in relation to the higher calling of teaching. They envision schools as the embodiment of our collective values:

It is time to rediscover, reconnect with, and revivify the heart and soul of what teaching is about – what brings the best people into this great calling and then keeps them there, despite everything. (p. 87)
Our schools are the social embryos of humanity, those institutions that...promote the highest collective values. They should be the embodiment of norms of reciprocity, active trust, and democratic deliberation. (Hargreaves & Shirley, 2009, p. 99)

Participant responses were exemplary of an overall trend toward understanding more deeply how our human spirit and many emergent qualities such as empathy, joy, and forgiveness are integral to an expanded consciousness of health, well-being, and sustainability. This includes a focus and appreciation of the physical, social, emotional, and intellectual, which is deeply intertwined with the spiritual and ecological.

**Developing a Deeper and Broader Appreciation of Health**

Health, according to many of the participants in this study, can be viewed as a relational process of aliveness, balance, diversity, and wholeness. Many of the participants reflected thoughtfully and tried to describe a space where they felt these qualities. Participants talked about feeling the joy of life, belonging, feeling safe, taking risks, forgiving themselves and others, and being able to expand and be truly themselves. They also talked about wanting to feel whole, appreciating each individual’s uniqueness and differences, while also feeling fully cared for and accepted. They talked about being open and vulnerable with others and being empathetic to others in their deep human needs, be they social, emotional, intellectual, physical, or spiritual. This connection is consistent with the fact that the words *health, whole, and holy* are all based on the same derivates from the English language.

According to David Bohm:

It is instructive to consider that the word ‘health’ in English is based on an Anglo-Saxon word ‘hale’ meaning ‘whole’: that is, to be healthy is to be whole, which is, I think, roughly the equivalent of the Hebrew ‘shalem’. Likewise, the English ‘holy’ is based on the same root as ‘whole’. All of this indicates that man has sensed always that wholeness or integrity is an absolute necessity to make life worth living. Yet, over the ages, he has generally lived in fragmentation. (Bohm, 1980, pp. 3-4)
Many participants explained how they were moving from a *self-protective ego* (Spencer, 2004) orientation to becoming more of a family or community, looking after and caring for each other. Some participants reported that this involved expanding their appreciation and consciousness of health, well-being, and sustainability. This involved building relationships, networks, and contributing both locally and globally towards common goals and purposes to create a better world.

**Qualities and Values Reflective of Health, Well-Being and Sustainability**

The underlying integral qualities and values of human goodness, wholeness, and human spirit that were described by participants in this study included:

- trust and respect;
- openness and vulnerability;
- compassion, caring, and empathy;
- generosity;
- abundance;
- courage;
- joy;
- forgiveness;
- selflessness, authenticity, and humility;
- service/support to others in their wholeness, integrity, and balance;
- service/support to others in their personal core values and life purpose; and
- ongoing development of a high level of consciousness of spiritual, ecological, and global well-being.
One district leader emphasized the importance of spiritual life in the education system and encouraged me to include spirituality as one of the major principles of this study:

I think we should talk about the role of spirituality in health....It is key. It is part of our body, our mind, and our soul....It is like taking one leg off a table....If you do not feed the spiritual side. I don’t care what the spiritual side is…nature, meditation, reflection. It is communing with something bigger than you….It is about touching the greater good….It is about recognizing your place in the greater good…recognizing what you do. Each of those microscopic things contributes to the greater good. (DL 12, District Leader)

Many participants reported how important spirituality was in their lives. Some people used other terms or words such as human goodness, working towards the common good, service, ecology, and moral purpose. The majority of participants reported that they believed that, when it came to leadership, specific human qualities, values, ways of relating, and an overall respect for life had the potential to positively influence the health, well-being, and continuous learning of individuals, the organization, and our global community. The majority of the participants also reported that these human qualities and deeper spiritual essence of life were more important than specific leadership competencies.

A secondary principal (E 1) explained that “health and well-being is like Character Matters but it has to reach beyond just the individual person. It has to be global and unifying. It is like the Universal Bill of Rights”.

Many participants discussed the essential foundations of trust, honesty, deep respect, and abundance in developing healthy, sustainable leadership. Some leaders promoted the diverse strengths in others, and valued each individual for their differences and unique contributions to the whole. They created environments of both freedom and responsibility and did not constrict people or make people feel afraid.

It is the kind of leadership that finds time to sit and listen, encourage and support, sees the strength....There are everyday ups and downs in people’s lives so number one for me in moving the system forward is being empathetic and compassionate. I think about individual people’s distress and support them unconditionally so that they are freed up to be able to work without fear. (DL 16, District Leader)
Another district leader (DL 15) said that it is ultimately about trust. “It is a trust that people will make decisions that will never undermine the organization but at the same time will allow them to do both their personal and professional best.”

Trust and mutual respect resonated consistently as key factors in healthy sustainable leadership as they appear to be almost prerequisites to other important dimensions. One key participant shared. In this school I feel well respected; I feel very well supported. And anything that I want to do pretty much I can approach [my supervisor] and say how about we try this and…she’ll look for ways if it is possible to support me in my learning, in my classroom, in my personal life. (B 2, Secondary Teacher)

A number of participants explained how health promoting leaders exhibited integrity and acted consistently with their values of character:

It is words like empathetic, caring, integrity, passion, drive, determination, respect, responsibility. It is those words that you have to assume first before you can expect anyone else to assume them, and if you do not communicate these forward…if you do not communicate that kind of character forward, all of a sudden it is not working that well. (DL 12, District Leader)

Another district leader took this further and explained how this approach requires being open and vulnerable with others. This leadership becomes more reciprocal in nature rather than top-down and authoritarian. “The administrators who are human and humane, who are transparent - they are not worried about making a mistake. They have built respect….It is reciprocal, works both ways, and they understand each other” (DL 4, District Leader).

Healthy Attitudes of Genuineness, Openness, and Authentic Listening

One teacher explained the importance of having the same values at all system levels. If the principals are not treated in an involved, respected, engaged way, then they will not treat us this way, and this is also reflected in how kids are treated. My principal is very respectful, engaging, caring, and involves us in the learning process. My assumption is that the philosophy the principal believes in must be the philosophy that he or she is involved in at the board level. (B 4, Elementary Teacher)
One district leader reported that she believed in the butterfly effect. She explained how important it was to be open, caring, and compassionate, and make changes where one can. She believed that even small changes had the potential to create large synergistic effects (DL 6, District Leader). Another district leader reported on the importance of espousing values and behaviour that are truly believed in and modeled.

Some people are not aware or conscious of their incongruent behaviours and attitudes. They advocate and talk about creating open, flexible, collaborative systems where power is authentically shared and distributed, but they are just espousing these values and not walking the talk. (DL 15, District Leader)

One teacher reported concern about the inner motivation of teacher leadership behaviour.

Why are people putting on a show about their initiatives and accomplishments? What about all the people that are working away quietly and humbly behind the scenes, doing the hard work required to create the real deep changes required? (B 3, Secondary Teacher)

Principals in the secondary system explained that effective and health promoting leadership is about having an attitude of openness and being willing to collaborate, share power, truly listen, and forgive people when they make mistakes.

If you are not authentic and you are not genuine, people sense it right away that you are just going through the motions of what you are supposed to do because you are supposed to do it....People will pretty much allow mistakes to happen and as long as the intention wasn’t malicious, most people are pretty good about everything. (E 1, Secondary Principal)

Many participants reported that by becoming more aware of their inner consciousness and respect for life, they had become more holistic, humble leaders and learners. They reported that they believed this broadened their worldview and expanded their ability to be better leaders.

As we evolve as individuals and as an organization, we begin to more fully appreciate our interrelatedness to others, to see that we have a responsibility to care for each other, show empathy, compassion in others’ losses and grief, in their happiness, and to share with others our experiences, our material wealth, and our inner selves. (DL 12, District Leader)
The emergent qualities of human spirit and appreciation of goodness resonated consistently as a very important underpinning of leadership, influencing the positive health, well-being, and sustainability of individuals and the organization.

**Theme 2: Authentic Sharing of Power and Control Through Empowerment**

An important underpinning of this theme is the opportunity to develop a greater sense of empowerment in one’s own life and the life of one’s organization. Most informants reported that when they were treated with honesty, respect, and compassion and when there was authentic sharing of power, they felt they had more influence over important decisions. They felt an increased sense of ownership and responsibility. They described this as not just a job, but an inner calling in life. In this environment, they felt a sense of ownership, commitment, life purpose, and meaning. They reported that having a high level of mutual trust and respect between themselves and their supervisor was an important underpinning of health and authentic sharing of power.

**Distributing Leadership Through Authentic Valuing**

A district leader (DL 14) explained how the senior management team had been working for a number of years to develop a leadership approach and values that were shared by all. She reported that the secondary superintendents had been involved in extensive conversations about the essence of distributed leadership and they viewed this as a very positive, valuing process. She also explained how much effort it took to develop a deep and honest process of distributed leadership that was not fundamentally about distributing work and responsibilities.

Another district leadership offered these comments:

> There has to be a valuing of other individuals....If we are looking to be consultative and collaborative and developing a sense of community, it takes a huge effort on the part of the leader to develop trust....If there is a sense that this is an initiative that I must do because it is being dictated to me…educators will figure that out. They do not want to be involved in phony community building. (DL 13, District Leader)
A teacher described distributed leadership as sharing of power and positive psychology:

If we are following this kind of positive framework or positive philosophy, the end result the majority of the time if everyone is on board with what you’re doing is positive. Often when we’re brainstorming as a leadership team…a question or a problem will arise. We kind of have to fuss through along the way but also comes the trust and respect. Only with a group of people that you trust and respect will conflicts result in a positive end. If you do not trust and respect people you are working with, when the conflict comes up, sometimes that can overpower the purpose of what you are doing in terms of leadership. (F 2, Elementary Teacher)

Health promoting, sustainable leadership creates an environment of empowerment. Many participants talked about how health promoting leaders allowed them to come forward when they could as well as to step back and look after their own family responsibilities and health as necessary. There was also a sense for respect and choice.

Leadership is the enabler of all things. It encourages continuous learning and encourages general health. I think that is something that allows those to flourish. Conversely if the leadership style is restrictive, it is not health promoting. The best leaders are those that allow people some freedom of choice in terms of what they think are important in their own needs. People who do not…trust are very insecure people. Leadership is about being fully human and humane and vulnerable, but some people see this as a weakness. They still believe leadership is about wielding your lofty power and position over others and telling people what to do. The leaders who emulate this honesty and vulnerability and see it as a strength, have transparent discussions and dialogue in their staff and the diverse opinions and ideas also promote health. (DL 4, District Leader)

Many participants talked about how important health promoting leadership is in bringing diverse voices to the table, valuing everyone, and creating the space for this deep dialogue.

You may not love everyone you work with and you may have some extremely difficult people. Sometimes there are difficulties in the flow, there are road blocks, there may be conflicts. They may not be people that I keep close to myself but I know that for the goal and purpose of the school and the sustainability of the system. For the system to move forward, those things have to be removed. (F 2, Elementary Teacher)
A few participants reported that there was a new process for promotion that used a fairly strict focus on leadership competencies. A number of teachers and administrators reported that this process most often did not take into consideration certain leadership dimensions and qualities. While these leadership dimensions were listed in the documentation, they were reported to be largely ignored when making important decisions about the capacities required for an effective leader. One principal said:

Good luck if you promote someone who has all the competencies and you can check these off on the list, but they are not a nice person and do not get along well with other people. I refuse to…support leaders who do not have the human qualities that are necessary to care for…others. (B 1, Secondary Principal)

A few teachers reported how they felt when they had a supervisor who focused more on using an autocratic approach to leadership and change. Likewise a district leader commented that “these people view it as a weakness for people to be more collaborative and open and transparent....I think this comes back to the individual’s confidence and level of consciousness and maturity” (DL 4, District Leader).

Many teachers reported having experienced an authoritarian principal who monitored their work and gave a lot of direction. They responded that this leadership approach did not build trusting, caring environments.

I’ve worked in positions where I’ve been micro managed and felt very distrusted and not empowered in any way. That’s a very stressful situation when you feel like you’re being micro managed and you have no professional integrity…When people are trying to hold on really tight to control, it is very limiting. (J 2, Elementary Teacher)

Many leaders reported how important it was for their supervisors to encourage openness in diverse ways including open door policies, communication, and open ways of seeing and being. This teacher described health promoting leadership this way.

It is on different levels…being able to have…an open door policy where you feel comfortable enough to speak to everybody who is in a leadership role….just the whole philosophy of having an open door and philosophy of open communication. This definitely promotes well-being…because you do not feel
stifled, censored, or blocked in any way. You feel valued, that your opinions are obviously listened to. (C 5, Secondary Teacher)

Many participants reported how important healthy social/emotional relationships were to developing authentic sharing of power and control. One secondary principal described examples of how working collaboratively can encourage people to find commonalities, learn to deal with conflict, and begin to feel safe. She described her experience learning how to share:

Working collaboratively encourages us to talk and share with colleagues…it allows me to immerse myself. It is safe and therefore there is no hesitation in confronting conflict and danger; encourages me to find commonalities; to begin to see patterns; to find comfort with staff; where everyone can flourish. (B 1, Secondary Principal)

A district leader, who had been developing an emergent pattern of distributed leadership for about 10 years, explained how important it was to share decision-making and how it can build on inner motivation, passion, and job satisfaction:

Distributed leadership…creates a healthier environment in the school because you are sharing decision-making and people feel good about it. People feel like they are important, it shows value, it shows respect for people’s ideas and their vision, and it builds on their inner motivation and job satisfaction. (DL 14, District Leader)

At the heart of distributed leadership was recognition that other people are leaders and have leadership potential. Many participants believed they can make each other healthier through strong and improved relationships.

We were born to have leadership potential and you allow me to develop mine….You are then helping me grow and I am healthier because of that - mentally, spiritually, and physically….Distributed leadership…means that you allow other people…to own certain leadership roles and when you make decisions, it is a collective wisdom…rather than you are the genius. (DL 6, District Leader)

Another principal talked about the importance of listening in health promoting leadership.

I listen attentively and then I give back what I hear. It is almost like listening to honour the other person and their deep essence….I try to let go of my own ego so
I can really hear what they are trying to tell me. Silence also creates a deeper space for this movement. You need to be aware of the silence underneath the words. What are they trying to tell me? (C 1, Secondary Principal)

Shared, Servant, and Situational Leadership

A few participants used the terms shared, servant leadership, and situational leadership to describe the forms and types of leadership that they prefer and use. One teacher reported that she believed in the values of servant leadership particularly related to motivation. She believed that leaders need to be truly selfless, not egotistical, or power and authority oriented. She also believed leaders needed to be truly caring about their contributions and leadership approach. This teacher would like to see more emphasis on self reflection, on the developing deeper understandings of what motivates individuals, and on how they are motivated by higher purpose, meaning, and consciousness.

There are leaders, and we all know them, who say we are all leaders here, but we know that it is all about getting the work done and delegating. I am busy so I want someone else to do it. They are not being honest and I do not like this. I don’t want to be resentful or cynical but if you are conscientious and keep working hard, you do not want to work for a leader who uses people….I truly believe we have to be more servant leaders, more internally motivated, genuine, and honest. I would like to see this promoted in our system. I think this is important in creating a healthy system and healthy people. (B 3, Secondary Teacher)

One secondary teacher (E 5) who was working in a very emergent to curious distributed leadership environment in the secondary system expressed his concerns about the need to consider situational leadership. He described some new learning initiatives that he felt had helped him to grow. While he was thriving and growing in the leadership environment in his school, he was concerned that he often took on too many new initiatives. This teacher reported that he often got very excited about the new initiatives and was encouraged to pursue his new ideas. He had created a whole new program for a special group of students. While he enjoyed the process, it took a lot of time and energy. He found it was also very stressful as he was not sure how to proceed in the most effective way and what the expectations of the senior management were in this regard. He would have liked to have a little more guidance and more ongoing mentoring and coaching. He explained that clarity is key in this type of leadership.
**Empowerment, Choice, and Authentic Sharing of Control**

Empowerment is an important underpinning of leadership that promotes health, well-being, and sustainability. People need to feel comfortable genuinely sharing power with others and creating environments where they can make decisions themselves. Having choice is very important. People are empowered when they can make choices about taking on additional responsibilities and have their voices heard.

Our new principals...feel quite overwhelmed by the sense that they have to implement all the new initiatives equally well....I learned very early on, the job is too big...so you have to...figure out that which you are good at....You distribute the other parts...to your VP’s...and then there is a part where you implement it in name only....If your SO asks the question...you have to be prepared to say I am not doing this or I am doing this as little as possible. (A 1, Secondary Principal)

A district leader explained how empowerment was integral to the overall culture of caring. She explained how empowering leadership requires a proactive approach to stress, paying attention to potential for burnout and trying to ensure ongoing resilience.

To me their health was more important than anything because in life if their mental or physical health is decreased....I would never have to call [my supervisor] and say… I am going to let [Principal X] go home early today because she needs to....[My supervisor] would say ‘Absolutely’. But I can think of some people who might say well, you know we’re not paying them to leave at 2:00 o’clock and that’s a bad example for the staff....If you see teachers on the edge, you had better… do something about it....I think you need to work with this person. He’s having a meltdown and what can we do? Take a couple of days, go home, recover, you need to do that....Maybe you need to say…‘take the rest of the week off or a couple of days off or something, you need to do that’. It gives people permission because they are falling apart. (DL 14, District Leader)

One elementary teacher reported how she became more conscious of how leadership influenced her health and well-being when she worked in an environment where she was micro-managed and not empowered:

When people are trying to hold on really tight to control it is very limiting because then you question your own judgement and you question your own professional integrity. So that’s very stressful….It affected our attitude because you felt that it was almost a self defeatedness….A number of us felt very micro
managed….The whole school was toxic because people became angry, resentful, and bitter. (J 2, Elementary Teacher)

A few participants reported having negative experiences in relation to leadership that was not empowering and did not authentically share power and control. In these cases, participants reported that their supervisors espoused values of authenticity, sharing of power and control, and distributed leadership, but their behaviour and actions were not consistent with their espoused values (Argyris & Schön, 1978). These participants learned that their voice was not truly being listened to, and decisions were often vetoed by supervisors.

Sometimes the leader espouses his or/her vision and values of sharing of power, caring, and deep distributed leadership, but when it comes down to their behaviour, they are more interested in their own promotions and well-being at the expense of the individuals who are the very organization….I believe we are at a point where we have mastered the sound bite and the rhetoric but our actions do not match our words. So there’s a disconnect between the talk and the walk. I think we need to call people on that. (DL 15, District Leader)

Some principals in the elementary panel and a few teachers in both the elementary and secondary panels had related insights. They were concerned that work was sometimes distributed for the achievement of specific goals determined by a few at the top of the organization as opposed to being shared and distributed for the common good.

If you feel you are just part of the assembly line turning out widgets versus being valued, you do not feel a sense of autonomy, empowerment, and that you are making a difference. You need to find a way within a large bureaucratic organization where we can strike a balance of independence, autonomy, creativity, and innovation and not be stifled. We need to be able to grow and reach the goals of the organization as well. (DL 15, District Leader)

**Organizational Fit, Coherence, Reward, and Recognition**

A few participants talked about how the major decisions in relation to top-down accountability frameworks were made and how data collection was done. They felt that this top-down approach was incongruent with the overarching vision and values of this school district.

A principal (I 1) and two teachers (I 2 & C 3) reported concerns about rigid frameworks that did not allow for diverse exchanges and growth. They reported how important it was to
continue to maintain a diverse team in each school. They believed this was particularly important in terms of ensuring a balanced approach to both qualitative and quantitative approaches to learning, leadership, and life.

Two teachers reported it this way:

We need a more diverse perspective on leadership throughout all areas of the organization – not just a top-down orientation and specific competencies. We need to appreciate diversity such as kindness, forgiveness, and compassion which are integral to restorative practices. (I 2, Elementary Teacher)

We have seen a major shift...that one size fits all....Things seem to be much more centrally located at the board and the provincial level. Then it gets filtered down to schools rather than being grassroots....Things now tend to be much more top heavy....Every school is going to have the same initiative. The province envelopes certain money for certain programs for every school. Whether it is conducive to that school environment or not, it really leaves...administration quite hand tied in many respects to respond to the needs of that school community....I’m okay with those frameworks but I think within those frameworks we have to allow for adaptation....The one size fits all didn’t work. (C 3, Secondary Teacher)

Two completely different philosophies of leadership, in terms of how fit and values were determined, are reflected in the following excerpts. One district leader talked about how it was important for individual vision and values and thinking to fit into those of the system, while the other district leader explained that the system was determined and created by the shared vision and values of the 14,000 staff. The first district leader offered these thoughts.

I think first of all when you think about the environment and how individuals work in them, it is the relationship of the individual’s values to the environment’s values. If you talk about systems, goals, and directions the system is going in, and the extent to which the individual’s thinking and values fits with that of the system. That’s a big one, because if there is a disconnect it can be stressful and it is not only stressful on a personal level, but it can be stressful on an interpersonal level. And when it is stressful on an interpersonal level in particular, that will affect work relationships and work performance. So I think alignment of values is a big one....The other thing I want to say was that those people would likely not be the people who are promoted to the senior positions....So it has implications as
well for how you hire, who you hire, and who you bring into an organization. 
(DL 3, District Leader)

The second district leader offered these thoughts.

People need to feel valued and that their ideas are valued, and acknowledged. And where do the beliefs and values come from? They come from the people that work here. People get tired of what organizations do to them. You need to keep people alive and challenge them. You have to have a high EQ and understand people. You have to consciously work at creating social networks where we give them the floor. You need to embed the sense that they are contributing….Turn accountability into responsibility. Create that opportunity for lots of interaction, opportunity for feedback - lots of opportunity for every person to see themselves reflected in what that school stands for and where it is going. If you are part of something, you have created something; that is pretty heavy stuff….The organization is healthy because people articulate who they are and where they are going. (DL 11, District Leader)

This tension and dichotomy of values, worldviews, and underlying consciousness was creating different patterns of leadership. This was influencing some important underpinnings of the system. Some participants reported that they were only being rewarded and recognized for fitting into the predetermined system direction. They felt the originally agreed upon values and vision were no longer appreciated or recognized in some areas of the system.

A number of elementary teachers expressed concern about how leaders were being recognized and chosen for formal leadership positions. They explained that in the original shared direction of this school district, there was a focus on developing diverse strengths and perspectives. They felt there was a shifting focus on valuing quantitative data and analysis at the expense of many other different ways of knowing and qualities of leadership. One teacher who had recently been through a promotional screening process, reported that while the system was promoting values of restorative approaches, when it came to promoting people, they were not even considering this capacity. This teacher was concerned that many people with diverse passions were not being recognized in formal leadership.
I think they’re shutting down a lot of really good potential leaders that would make this a stronger board because you would have a more diverse group of people...You are losing people who have a genuine passion for other things. You know you look at what makes up a great school. It is people that bring in all these other strengths and they make it a rich place, they make it a fun place. My view is that if you get too many people with the same mission, the same goal, the same end in mind that you are shutting out all these other areas that need to be felt in a school climate....There’s social literacy....If someone values the academic more than let’s say the restorative, that’s going to be noticeable in the school.

(I 4, Elementary Teacher)

In summary there were numerous issues identified about authentically sharing power, control, and being empowering. While there were many areas of the system that were moving positively in this direction, participants highlighted important areas needing further consideration in relation to espoused and actual values and theory-in-use (Argyris & Schön, 1978).

Theme 3: Diversity and Meaningful Input Into Decision-Making

A significant underpinning of health promoting, sustainable leadership is ensuring meaningful participation and engagement in decision-making. Many participants talked about the leader’s ability to encourage active involvement and receive honest feedback from staff and colleagues. Feedback loops, ongoing committees as well as formal and informal processes were identified as contributing to meaningful participation in decision-making. Again, trust, empowerment and a belief in people were significant recurring themes from participants. Participants reported how important it was to be treated well by their supervisors. They wanted to be given freedom, choice, and autonomy to make decisions about their own interests.

Diversity is Synergistic

Collaborative, adaptive-type leadership, while it draws on the culture of collaboration and connectedness, is not always open to diversity and change. It can sometimes be more focused on achieving goals and outcomes. A few people reported that they felt like they were on a ship together and they had to do the same thing. There was very little room for diversity, unique perspectives, and opportunities to question the status quo. One district leader explained:
Synergy is created, more than what was there before....When people interact positively and try new things and get energy from each other, they may create synergy in the system that was not there before. Or they could get the reverse, less synergy. You have to consciously work at this....You are creating social networks where people are. We had to give them the floor, the grounding on literacy before we got to the other areas....You built the synergy through the groups and regrouping and the looping back. It is really about how you build the various networks. (DL 11, District Leader)

Listening and sharing power and control through empowerment, also leads to sustainable initiatives that are owned by all and are extended through co-creation. A teacher described her experience.

I thrive in an environment…where someone respects us; it is reciprocal – they respect us, we respect them. They empower us to move forward and they …provide the environment for us to do that….So the more I am in this kind of environment, the more physical well-being, my emotional well-being, my whole perspective of the world is greater….I think it is partly about my values …partly about the way I see things. (F 2, elementary Teacher)

One teacher reported that the district, as a whole, needed to begin to look again at ensuring diversity in leadership at all levels of the system.

I just feel like our board is ripe for it. Fourteen years ago the board put almost every teacher through the True Colours process and that was so that we could understand that there are these four major personality types - orange, blue, gold and green….It is saying that the people that you work with are going to come at you for different reasons with different perspectives….So I think that’s really promoting us to look at each other and what we all bring to the table. (I 2, Elementary Teacher)

Two district leaders and a teacher explained how voice was important to authentic sharing of power and control and meaningful input into decision-making.

If people have voice…that elevates the whole discussion for them….You must listen to the voice or provide the explanation of why you did not….There is a huge disconnect between the recognition that we need voice and the lack of recognition that we do not act upon it. (DL 12, District Leader)
The people who are making the decisions, without any input about what needs to be done and the deadlines…need to slow down. They need to care….As soon as [these] people start to care about their own personal health, they will start to see how that impacts us all. (F 3, Elementary Teacher)

**Concerns Related to Lack of Meaningful Input Into Decision-Making**

The vast majority of the teachers, principals, and leaders were very involved in decision-making and influencing major decisions in their work. There were a few participants in schools who reported concerns about how decisions were made and how input was not encouraged.

Many of the participants reported that the district and school plans started out as very structured, rigid, and top-down. In the early stages, the plan exceeded 50 pages. Participants said it was too detailed to be as helpful as it might be. They wanted to have a guiding framework that would be meaningful, but not be restrictive. As people became more comfortable with their own learning, they were able to engage in more authentic and open dialogue. This resulted in the district plan becoming shorter (10 pages) and more of a guiding framework. This reflects emergence, a growing openness and comfort with ambiguity and change. “The system plan is important but I think it is good that it is not so directly guided. I like the structure, here are my options and here are the resources. It allows a point of reference” (C 4, Secondary Teacher).

A few teachers described an inability to influence major decisions and felt a lack of honest, open, and transparent decision-making processes. Their principal leaders used a more traditional approach to leadership. These principals made decisions with small groups, chose an inner circle with whom to work, and were not as transparent and open about how decisions were made. A few teachers reported they were often surprised by major decisions. They felt confused and upset by decisions that influenced their work.

Many elementary teachers reported that deadlines were demanding and that decisions were being made without input from the field. An elementary principal explained that experienced principals needed to be more involved and consulted in important operational decisions in the system.
[Superintendents] are negotiating with the people that have to operate the schools who are the principals and they’re not part of that grouping. There is no representation from the Principals’ Association....The principals are never asked what implementation tools they need to use….The superintendents may have the theory of it, may have done it years before but are not fresh from operating as principals (F 1, Elementary Principal).

A few principals reported a lack of comfort in coming forward to express their concerns. “Somebody has to say okay, the tap is running too fast; currently you’re asking for this, this, this, this, this” (G 1, Elementary Principal).

Principals in the elementary system reported that there needed to be a more holistic and diverse approach to education. They were recognizing the major impact this was having on their individual health, well-being, and sustainability and that of the system as a whole. They liked the role model that they had seen at the senior management level of creating a diverse team of professionals with diverse strengths and perspectives. They were trying to create and promote this diverse team approach in their schools and wanted it modeled across the system.

The majority of the principals in the secondary panel also reported feeling stressed and overloaded. Two secondary principals (A 1 & B 1) reported that their jobs were too large and complex and had been for many years.

There were differences identified and reported between the elementary and secondary systems that seemed to influence their capacity to deal with complex change, overload, overwork, and ambiguity.

Participants explained that the secondary system was a complex system and had been developing patterns of complexity and self-organization for many years due in part to overload and also to having a very different culture of leadership and interrelatedness.
Many secondary principals reported that they had learned how to deal with this complexity by having various opportunities for input into decision-making with their principals’ association; joining committees on staffing and union negotiations; being connected through networks with other principals; and by spending time talking and learning from each other. They reported that these factors have made a difference in the secondary system’s ability to get their work done.

Many secondary participants reported having significant flexibility, opportunities for ongoing feedback into decision-making, and a sense of autonomy and ownership. They reported having an agreed upon understanding that they would work hard to achieve their goals, while also having a sense of autonomy and trust. If they could not achieve all of their objectives and goals, they would need to be able to explain this to their supervisory officer (A 1, Secondary Principal). This created a sense of responsibility and ownership rather than a feeling of compliance. (DL 2, District Leader).

Conclusion

Leadership that promotes health, well-being, and sustainability of individuals and the organization was described as encouraging open, honest, and authentic dialogue; being approachable and able to receive honest feedback; not being threatened by different opinions and worldviews; being open to new ideas; having an abundance mindset; and authentically sharing power and control. It encouraged collaboration and deep reflection and a space for diversity to thrive. It engaged leaders in meaningful decision-making through feedback looping, working with diverse stakeholders, and creating forums for honest and open discussion. It created flexible and open structures that were becoming more collaborative and worked to promote greater creativity, diversity, and emergence. This leadership was becoming comfortable with ambiguity, complexity, and ongoing systems change. It appreciated and respected people and encouraged them to work towards a shared purpose while recognizing the meaning, purpose, and consciousness of the individual.
System Environment 2: A Culture of Continuous Learning

The following identifies the four key themes and sub-themes that were identified under the System Environment 2: A Culture of Continuous Learning as being integral to creating a health promoting, continuous learning, sustainable system.

A CULTURE OF CONTINUOUS LEARNING

THEME 1: Diverse Ways of Knowing
- Tacit / Intuitive Ways of Knowing
- Creative Ways of Knowing

THEME 2: Embedding Learning Into Ongoing Processes and Relationships
- Co-Creating Our Own Sustainable Reality
- Practices Limiting Learning, Health, Well-Being, and Sustainability

THEME 3: Creativity, Risk-Taking, Innovation, and Appreciation of Resources
- The Role of Coach and Mentor
- Resources Are Integral to a Culture of Continuous Learning
- Innovative and Emergent Structures and Processes

THEME 4: Learning as an Ongoing Reflective Process and Practice
- Reflecting, Questioning, Seeking Relevance, and Challenging the Status Quo
- Looking for Big Picture Patterns
- Paying Attention to Energy and Eliminating Bottlenecks

As leadership is the major enabler of the systems change processes, many of the same underpinnings of the leadership environment are also important in creating higher level learning
environments. This includes creating an environment of trust, respecting uniqueness of life, and creating environments of respect, caring, and compassion. This also involves creating the capacity to authentically share power and control; being empowering; developing the capacity to authentically listen; and engaging people in meaningful shared decision-making.

Moving from single- to double-loop learning is necessary in creating cultures of continuous learning. While I have not repeated these themes here, it is important to recognize that these capacities are foundational to moving from single-loop or needs improvement approaches to learning, to collaborative/adaptive learning, and then to an emergent/curious/generative pattern of learning (double-loop). This promotes a deeper learning culture that involves creativity, risk taking, innovation, and ongoing reflective practices. In double-loop learning, people are able to “detect and correct errors in relation to a given set of operating norms” (single-loop learning) but also able to question the relevance of operating norms (double-loop learning) (Morgan, 2006, p. 84).

The participants interviewed were unanimous that there was a very strong culture of continuous learning in this school district. As is the case with a high performing, reflective system, there were also some issues identified that can contribute to disempowering individuals and the organization from achieving their full potential and ensuring high levels of health, well-being, and sustainability for all. These are identified at the end of this system environment; some are integrated within the discussion.

Theme 1: Diverse Ways of Knowing

In this study, diverse ways of knowing involved developing more open, distributed leadership and learning patterns. Leaders were able to tap into their own individual and collective ways of knowing their diverse expertise, gifts, and talents. In the most emergent, curious learning environments, these diverse ways of knowing and contributing to the whole were more fully appreciated, valued, and synergistically accessed.

Much of what is described here can be seen as tacit or informal knowledge which was introduced by Polanyi (1967). Tacit knowledge refers to unwritten, unspoken, and hidden knowledge based on emotion, experience, insight, intuition, observations, and internalized information. Tacit knowledge is considered to be integral to the entirety of a person’s
consciousness. It is acquired largely through association with other people and requires joint or shared activities to be imparted from one to another (Business Dictionary, n.d.). In the interviews, I did not ask specifically about ways of knowing, but participants took the initiative to provide in-depth data on how and why intuition, wisdom, creative thinking, imagination, musical abilities and knowledge, and social/emotional intelligence were important.

**Tacit / Intuitive Ways of Knowing**

Participants talked about the importance of their own intuitive ways of knowing. They talked about tapping into life-long learning, experience, and listening to the wisdom of people who had spent many years working in this education system.

Many participants talked about how they were so inspired by the original vision and values of this organization and how the Director was open, creative, and willing to appreciate diverse ways of knowing and doing. Many participants explained how and why this appreciation of diversity was important and how this needed to be embedded at all levels of the organization.

Two elementary principals (J 1 & I 1) explained how they used intuition when making important decisions. One elementary principal (I 1) explained that sometimes he had hunches that gave him insights and knowledge to help him make sound decisions. “I am a very intuitive person and I trust my intuition. A couple of times that I haven’t trusted it and went against it, I was wrong. I did something that my gut told me not to do” (J 1, Elementary Principal).

One district leader (DL 13) explained how she tapped into her intuitive capacities on a daily basis. She used her intuition to pick up on other’s needs and interests, to figure out how to help people and ensure they did not develop mental health problems, concerns, and become overly stressed and ill. She explained.

Managers are data driven and that is their demise because you lose that human quality....I am a big picture, global person....I drive analytical data-people nuts. But I think that for me to devalue analytical, data-people would be so wrong because they contribute a lot. I need them in my work. But I am also needed because I can look at that group of 500 people and say there’s a person under stress; there’s a person that’s afraid....They need data. But we also need to know that sometimes we have to listen to...individuals like myself....It might be called
pie in the sky kind of people but...they are the ones that are hearing the feelings of the individual and I think that is crucial. (DL 13, District Leader)

While the majority of people are not creative or intuitive, I do not like to admit that I am tapping into my intuitive capacities. Most people believe and value only rational academic reasoning and evidence and would not value my contributions. (I 2, Elementary Teacher)

Creative Ways of Knowing

Participants reported that there was a strong value on academic and rational knowledge. They explained how important this diversity was in their own learning processes, work, and life decision-making, and how they related to children and youth with very diverse ways of learning and knowing.

One participant (I 4) talked about how his work with Aboriginal people had influenced his own capacity to know more about his relationship with nature and his respect for indigenous ways of knowing and being.

One teacher (D 3) explained how her previous principal was very data driven and imposed this on her. She said that this made her feel very stressed and unable to function well. She was unable to take any risks, be creative, and make decisions as she felt that her supervisor did not appreciate her unique gifts and talents and was trying to make her change to be like her. This made her feel ill and unable to function well in her teaching position.

A secondary principal (C 1) explained how he drew on his wisdom and life experience in making important decisions and ensuring the continuous learning of his teacher leaders. He explained that while he did read a lot and seriously considered research, he had found that tapping into his inner wisdom was much more effective and important for him in his decision-making than any other type of rational data and evidence combined.

An elementary principal (G 1) explained how important it was to tap into your own creative thinking, imagination, and musical talents, particularly when working with students who have difficulty in the traditional school environment. He told a number of stories about how he was able to reach children and parents through his own appreciation and knowledge in music, arts, and sports. He believed this was extremely important and often kept children
connected to their learning environments and to themselves. He explained that many children were becoming disconnected from the traditional learning environments in schools that did not address the creative, musical talents and intelligence of children and youth.

There is a huge body of research that talks about the impact that things like the arts have on student learning. We are in a board that supports that. We have schools of the arts but who goes to those schools? Students who have a passion for the arts. What about these schools where we are trying to promote that and we want to develop that but are we given the time to do it? No.

All arts, visual arts, the performing arts, you know music, dance. I think any art opportunities that we provide for kids gives them a very different perspective on the world and helps them see the world in a very different way and that you then apply to your learning. I mean there are so many ways that we can hook children and it is not necessarily through the academic reading and writing. We give kids ample opportunities but we have to give teachers the opportunities to do it. (G 1, Elementary Principal)

An elementary principal (I 1) and a teacher (I 2) explained how important it is to think about learning as tapping into and appreciating diverse strengths, capacities, and teams. The principal explained how we need both the soft and the hard methodologies as well as ways of knowing and relating to people in our leadership teams and our education system, overall. He felt that the district was getting out of balance in some key areas and relying too heavily on academic success in terms of testing and marks. He felt the school district did not fully appreciate important aspects of compassion, social/emotional intelligence, and encouraging creativity and innovation.

A secondary principal (E 1) described how he had worked with a doctoral student with his staff to identify their unique learning styles and approaches. He commented on how important this was for both the teachers and the students.

In the secondary panel it was reported that while there was also a focus on academic achievement, there was more of a balanced approach as the system offered different pathways for youth and more choices for students in terms of courses, alternative programs, and resources assigned to every school. Youth were still feeling driven to achieve high marks to get into
university. There were also additional programs put in place across the system to try to address at-risk youth, such as more cooperative education, alternative education, and work experience.

Many of the participants explained why diversity was so important in creating healthy sustainable learning environments. By recognizing diverse voices, and respecting diversity overall, the participants believed that they could move to deeper levels of learning by tapping into all the strengths and resources in the system.

A secondary teacher expressed her feelings about different ways of knowing.

When you are feeling respected, you are feeling that someone appreciates your strengths and this is healthy. Then you work harder and together with others in a more collaborative way. We need to appreciate diverse ways of thinking and seeing. Insecure people have more difficulty with diversity and different opinions and ideas. The more healthy and secure we are, the more we appreciate and even enjoy diverse ideas, and opinions and ways of doing things. We can learn so much from others. (D 3, Secondary Teacher)

Many teachers were feeling the stress and strain of change processes and the ongoing demands of their work. One elementary teacher (H 2) stated that he felt that the elementary panel was becoming too linear and data driven. His expertise in music and art was no longer valued. He wanted to express his concerns on behalf of his colleagues who were experiencing similar feelings. As a music teacher, he felt called to this profession to support others in their learning and to draw on his own inner strengths in creativity. He was finding it more and more difficult to reach out and be able to use his strengths with the students, as this was not seen as a priority.

Another teacher in the elementary system (I 4) said he had spent many years learning restorative justice and was disappointed that the system did not seem interested in this expertise. He felt that while it was an important, espoused value of the school district, it apparently was not important enough to hire principals with this type of background. The district seemed to value more highly expertise in relation to quantitative data, outcomes, and high performance.

The value of diverse ways of knowing is an important finding in this study. Participants wanted to tell me that there was more than one way to learn. They were also feeling that the system was slowly moving out of balance in key areas. In part this also related to Ministry
directives and mandates creating a dominant focus on rational thinking, academics, outcomes, quantitative data, and marks.

**Theme 2: Embedding Learning Into Ongoing Processes and Relationships**

Overall, the continuous learning culture in this school district was highly embedded in staff development in the schools and through personal and professional development inside and outside the school district. This was achieved through bringing in external expertise and support; and ongoing initiatives across the region, such as the learning collaboratives and an annual international conference. There were many new learning initiatives, including coaching opportunities, mentoring, leadership networks, and technology networks. These formal and informal networks were in key areas, including subject specific and strategy specific knowledge development. Staff members were encouraged to develop their own learning networks in the school and across schools through both formal and informal/emergent processes. Within each school, there were diverse networks, collaborative knowledge building forums, and professional development opportunities.

The majority of the teachers interviewed reported feeling very optimistic, positive, passionate, and excited about the learning opportunities at the individual and collective levels. They reported that this environment of continuous learning was synergistic. It stimulated their social, emotional, and intellectual development and encouraged them to work together to create something more than they could create individually. This was fundamental to both individual and organizational health, well-being, and sustainability.

**Co-Creating Our Own Sustainable Reality**

One elementary teacher described the flow that she experienced in her capacity as a leader and learner in her school. Her quotation illustrates the synergy among health, well-being, continuous learning, and distributed leadership.

Working in my previous place where I was part of the shared leadership team, I found I was cognitively more aware than ever before. My brain was firing on all cylinders. I was able to create and express….I was in a position where I was respected and appreciated but I was relied upon and depended on and in that environment it was important to me….I learned more in those two years than I’ve
learned ever in my previous years. It was an incredible, incredible time of growing for me professionally, just as far as leadership, as far as awareness, as far as my own intellectual development. (J 2, Elementary Teacher)

Learning is definitely connected to your physical and emotional health and well-being. I can feel my heart when I am excited…and when I am feeling too stressed. Learning is about having a sense of meaning and purpose in what you are doing and it is definitely connected to your own sense of purpose and what the organization thinks is important. (F 3, Elementary Teacher)

An elementary principal explained how a small school is like sailing a ship.

Sometimes teachers are like that too. There’s no movement or growth in them. You want a person that can remain current, cutting edge, and keep moving ahead of trends so we can create success for each of our students….We are trying to move forward. It really does not matter if we get there, it is about the journey.

I always had the analogy…rightly or wrongly that a small school is like a sailing ship with sails….When you are a small school, and the wind changes, man, you can feel it….We are using each other to move kids along and make sure kids are successful….Our relationships carry us through the rest….Is it important to have a healthy person or a healthy system? A healthy system I think does not work at maximum, it works within its parameters so there is that ability to take the maximum when it hits. (F 1, Elementary Principal)

Many participants from schools with more collaborative leadership and learning environments reported that they were beginning to appreciate how they were able to co-create their reality. By intentionally focusing on shared vision, values, and goals, they were more likely to be able to sustain their energy, commitment, and ongoing implementation.

When the vision, goals, and structures were imposed by the system or the principal, participants said that the work was not owned by them and not seen as their creation. This made it much more difficult for them to continue, to get people involved, and be passionate and committed. Some of the participants were beginning to feel that some of the directives that came down from the Ministry and the district were not coherent with their own values and vision. As such, they were finding it very difficult to feel connected to these initiatives.
One principal reiterated the importance of feeling connected to and owning the key initiatives and learning processes.

It is about the collective moving forward in a shared direction. It is a symbiotic relationship. It has to be a participatory learning and decision-making process. People don’t mind if it is not perfect – as long as they are part of the solution – then they own it. Like a funny old dog they have. If they own it, they continue to keep it and love it. If people do not feel connected and have ownership, the learning and change is not meaningful or coherent. (E 1, Secondary Principal)

A district leader reported on how the culture of research contributed to a culture of continuous learning where people feel connected to research issues they helped identify.

I think that the healthiest places to be in terms of learning are the schools that have embraced action research. Schools that actually focus on a research question using the data to find what they want to know more about would be the schools that are healthiest because they focus on the questions they need to know more about to increase student achievement...We had the framework before so we have actually identified our boundaries...that we need to stay within. When you clearly define the boundaries and make them explicit, then everything that comes at you either fits into the framework or is not acted upon....I think that’s what keeps it healthy because we have a direction, we have a priority, we have a focus….There is also a meaningful understanding of why we do what we do....You have a coherent purpose which I think is very healthy and invigorating….That to me is the focus of the integration so when they see that learning is our work, it all fits together. (DL 16, District Leader)

Many participants described how alive they felt when guiding and contributing to their learning and the overall positive energy and momentum created.

If members are involved or if staff is involved and feel that they are not just being talked at and that they are being listened to, they are contributing, there is a positive energy and there is momentum. The follow-up to that momentum is also very important in order to ensure it is sustained. (C 1, Secondary Principal)

It is about synergy, being alive, and if you do not follow up on it right away, the energy is wasted. (C 4, Secondary Teacher)

The district is creating a healthy environment by providing opportunities for people to learn and be involved in learning.
If you don’t have the emergence once in a while then you lose your creativity and innovation, and then become stagnant....You have to try a little creativity....If you just keep teaching the same way and if you don’t step outside the box, the kids are never going to benefit and you are never going to find out that type....You have got to allow people to run with their ideas. I think you’ve got to give them the flexibility. I think people know what they can and cannot do and you have to allow them to show the leadership, show that they have the professional integrity to make those things. If they make a mistake, they make a mistake. (E 2, Secondary Vice-Principal)

Practices Limiting Learning, Health, Well-Being, and Sustainability

Certain practices can limit learning, health, well-being, and sustainability. Overload, downloading, failing to consult sufficiently, and not being congruent in meaning and purpose pose natural challenges.

We are heading towards that upward spike. I think there’s way too many people stressed out. It is just like the big snowball rolling down the hill you know. The amount of work that we have to do does not fit into a regular work day….I take time out to have dinner with my family which is my non-negotiable and then I’m working until 11:00 or 11:30 at night every night. (F 3, Elementary Teacher)

While most participants praised the system for its promotion of continuous learning environments, strong concern was expressed for the degree of top-down decision-making and the limitations on professionals to engage in self-directed professional development.

If it was something more meaningful and practical in what we are actually doing….I know a lot of it is Ministry driven….When do I find the time to do all the things that we want to do? (A 2, Secondary Teacher)

Too often our PA Days are mandated and they are minute by minute regulated…. We have done a lot of collaborative learning amongst schools. The biggest challenge is how do you bring it back and share with your teachers. (F 3, Elementary Teacher)

Learning has to be meaningful and relevant. Most participants reported that while the environment of continuous learning was generally health promoting, they would like to see the learning be more meaningful to them and provide more opportunities for them to address their unique professional needs.
A number of participants spoke of the difference between continuous improvement and continuous learning. They reported that continuous improvement was a more organized and structured approach to learning. Continuous learning was a more active process and is often more important in terms of meeting their specific individual needs in meaningful ways. A teacher offered the following comments:

I think that learning is more active than improvement. In improvement, you have learned a new skill and you are going to keep working on that new skill. You have an outcome that has already been predetermined and you continue to work on this. In continuous learning, I think about what else I might like to learn and bring this to my work....Continuous improvement to me is a bit more of a hold-back, it does not seem as broad to me….Continuous learning means, I am not satisfied with that one thing and now I am going to find other things that can feed into this one….It is more active….I believe that continuous learning has more of a voluntary and meaningful aspect and is more health promoting. The culture of continuous learning is health promoting for me because my professional capacity is respected. (C 4, Secondary Teacher)

The strong capacity to co-create new knowledge, wisdom, and diverse ways of knowing was embedded throughout this school district in positive and synergistic ways.

Theme 3: Creativity, Risk Taking, Innovation, and Appreciation of Resources

Creativity, risk-taking, innovation, and appreciation of resources are highly important and non-linear aspects of more collaborative and evolved adult learning environments. In the more emergent school environments, there were many leaders working quietly, humbly, and diligently to create substantial change across their school and the system as a whole. They were dedicated to their own learning and to supporting others through modeling these values and sharing resources – their own time, expertise, and support.

A principal and his teachers reported that there was a need for broader and more innovative perspectives on learning. Many teachers and the principal were very involved in international teacher and principal exchanges and approaches to learning through the use of technology and integrated programs across diverse disciplines and countries. This school was recognized for one of its innovative programs in health and has attracted global leaders to visit
the school. All of the teachers in this school undertook a learning style inventory and found out how that knowledge could be used in an effective way in working with youth.

We did this early in the semester and this got all of the staff buzzing saying….I did not think that I was that global….he thought he was much more detailed….What it did was to make teachers reflect on how many kinaesthetic learners they have in their class….and the teachers did modify their teaching style. Student behaviour improved. It made everyone think. It created a better learning environment and a better social emotional environment. (E 1, Secondary Principal)

Many teachers reported that it was essential to feel safe to be able try new things, make mistakes, and reflect on the experience. One teacher had these insights.

You cannot be afraid that if you make a mistake, or have a problem, someone will criticize you and talk about you. This safety and learning is also about social and emotional personal issues. You have to be able to talk with your leader about your concerns just like students can talk with their teacher about their social, emotional issues and concerns. (C 2, Secondary Teacher)

A secondary principal focused on the importance of developing resilience in the face of risk. Accepting and allowing people to make mistakes is integral to this ongoing learning.

People and systems can get out of whack and they have to be flexible enough to be healthy. You need to build in resilience for individuals and for the system as a whole. We all get out of balance once in a while, we are alive and this can be healthy if we have resilience, forgiveness, and compassion for ourselves and others….Resilience is integral to learning, growing, and having strong teams. Anyone who thinks they can do it on their own is artificially blind. You need to rely on others, go back to your core beliefs and values….and ensure the right thing is done. People will make mistakes but people are generally forgiving as long as it was not done with malicious intent. (E 1, Secondary Principal)

**The Role of Coach and Mentor**

A teacher explained how important it was to be a coach and mentor and work together to get commitment for continuous growth and change in departments across the school.

You allow people to work to their strengths and you allow them to make decisions and run things and organize things but you’re still coaching them and mentoring them and being their resource….You have to model with the utmost integrity and
filter things through your core beliefs and values. Every decision needs to stand to that test. (B 4, Secondary Teacher)

Many administrators and teachers in both the elementary and secondary panels reported that they would like to see more mentoring and coaching programs in the school district. These mentoring programs would extend beyond formal leadership development to personal and professional support and mentoring for life, careers, and inner development.

You have to address the fact that we are individual teachers….To make it more meaningful, I would rather you create an individual learning plan and then have ongoing meetings about where you are at and what you are doing, rather than have a one-day classroom visit which is so not authentic. (B 3, Secondary Teacher)

A number of teachers reported that while they enjoyed their role as mentor, that it was also very challenging, stressful role at times. One teacher said it this way.

It is a great tool but it becomes very stressful because you are trying to mentor your colleagues and sometimes they do not want to be mentored. Sometimes they are resistant. You are just another judge….It became a balance of how you mentor somebody without making them feel intimidated. (J 2, Elementary Teacher)

Another teacher who had previously worked as a department head explained how she learned how to encourage people to come on board and work together.

There is a way you can bring people on board, instead of attacking them and telling them they’re incompetent. You can draw on your strengths and you can tell them you have noticed and tell them something great that they have done….You tell them you could really use their help and you would be surprised how willing they will be to help you out….You are trying to find something of value so that everyone feels they have something to bring to the table….When you can start doing that people feel good. They feel good about themselves and when you feel good about yourself you like working with who you are working with….Then once you like that, there is that level of respect I think and people feel like they cannot let somebody down. (B 3, Secondary Teacher)

One district leader explained how there were some coaching approaches that addressed sustainability and balance. “The secondary team has been actively involved with Renewal
Coaching. This framework draws on key aspects of sustainable change including resilience and renewal” (DL 11, District Leader).

Coaching is not just about reaching your goals and objectives, but supports deep aspects of transformational change processes that require a person to know their strengths, values, and priorities. It is not focused on organizational performance but on the inner self and on ensuring people are ready for major transformational change.

Renewal, rejuvenation, and resilience were reported by a number of participants as very important aspect of leadership, learning, and interrelatedness, and necessary for healthy individuals and a sustainable organization. Coaching and mentoring were important to consider.

**Resources Are Integral to a Culture of Continuous Learning**

Resources were identified at all levels of the system as being integral to creating innovation and a culture of continuous learning.

Two secondary principals (B 1 & C 1) reported allocating funding to support group activities, planning days, committees and to build capacity in a number of key areas unique to their schools and communities. These resources gave them the space, time, and ability to learn and work together, share knowledge, and disseminate new ideas. They provided time to think and learn at a deeper level, using systems thinking and skills.

You cannot ask teachers to take on new innovative programs if you do not provide resources. If they have to do it on their own, if it is inconvenient and they can do it during the day, even better. If you have structures in place, for example, a training course over the next six months, this really helps to move innovation and learning along. (I 4, Secondary Teacher)

The whole objective is making people feel they are contributing, building a synergy. They are respected for their ideas and for their innovation. We have an innovation fund of $X, so how do you feel about wanting to be innovative? (DL 11, District Leader)

In each secondary school, principals had the autonomy to establish their own professional development fund based on their budgetary needs and decisions. Many principals reported how their processes were determined in each school environment and how this fund
significantly influenced their ability to ensure access, support continuous job-embedded learning and innovation for all staff.

I believe the learning in this board and this school is truly non-stop. We have a budget in this school of $X per year for professional development. This includes conferences, bringing in speakers, taking teachers out to work in groups, hiring a facilitator, and involving the school council. (C 1, Secondary Principal)

Knowing how to access and synergize resources is an important leadership capacity and integral to building and extending a robust culture of learning across diverse stakeholders. An appreciation and sharing of diverse strengths, capacities, and voice as resources also contributes to a culture of shared learning, knowledge development, and dissemination.

**Innovative and Emergent Structures and Processes**

Both formal and informal innovative and emergent structures and processes influence continuous learning. Those interviewed from the secondary panel reported a number of formal and informal feedback loops related to staffing, union negotiations, and programs that contributed significantly to ongoing learning. The capacity to be involved in continuous learning and decision-making contributed to moving from an organized to a more self-organizing learning environment.

[We have] sub-committees of the Principals’ Association where they are posing questions to small groups of employees who have a challenge….So I suppose structures like this would allow more feedback….We tend to have an implementation plan for virtually everything….The loop needs to close a bit more…[to] allow dialogue with the practitioners about how we will solve this problem. (A 1, Secondary Principal)

Selected secondary principals discussed more innovative structures, processes, and forums in their own schools that allow people to be engaged and share their diverse voices. At the same time, they built in a more sustainable process that did not take up too much time and or compete with other important responsibilities. One principal reported creating a committee.

They do not have to sit on the committee for three years. They just come in and talk about what they are passionate about and they help set the framework. They get excited because their voice is being heard…and then they satellite back out and
do their job in the department....They do not commit their lives to a committee....You can see the ebb and flow. (B 1, Secondary Principal)

The district collaborative was reported to be a very successful core system change strategy over the last 10 years. Through this system strategy, teams from elementary and secondary schools were supported by curriculum staff and other key personnel to focus on and enhance literacy learning across the district (e.g. differentiated instruction, balanced literacy, assessment, climates for learning). Teams were also provided regular, system-level professional development by internal and external resource people focused on enhancing their expertise as change leaders (distributed leadership, job-embedded professional development, inquiry). This system strategy evolved over time based on data generated by system participants.

The [district] collaborative is wonderful and is more of an introduction of concepts. There are tons of opportunities to take whatever you want and develop. There is lots of room for creativity. (C 4, Secondary Teacher)

I really enjoy the...[district] collaborative and have learned a tremendous amount....I think they hit on something really important. There are very basic things that no matter where we go and what we talk about these are the fundamental things that we have to keep in mind. The parameters are very good. The fundamental belief is that ‘all kids can learn’. That is critical. (E 5, Secondary Teacher)

Informal and formal feedback loops contributed significantly to continuous learning. As well, they promote growth from organized, designed learning to more self-organized, emergent (novel) learning. One secondary principal described an emergent process where the staff members took it upon themselves to create their own structure to work on innovative ways to address some major issues.

I started to get calls about a certain department and I had to immerse myself in the calls and complaints. I went back to the department and put it on the table, and asked them to work it out themselves. I gave them the time to get together to dialogue and figure out what the deeper issues were and they had no hesitation to confront danger. I gave them a safe environment and resources and time. They were in their comfort level with colleagues who speak the same language and then they all flourished. (B 1, Secondary Principal)
One teacher reported a novel idea being tried in the secondary system.

We are trying to work in the secondary system overall to create more of a grouping of people across departments so that there is more dialogue and discussion – coming from diverse perspectives and disciplines. The secondary system is trying to move to this with new community facilitators. I understand we are moving to more groupings instead of departments. We are moving to a more collaborative and integrative approach. (E 4, Secondary Teacher)

As will be discussed in Chapter 6, more evolved levels of consciousness are fundamental to cultures of continuous learning. In the more emergent school environments, there were many leaders working quietly, humbly, and diligently to create substantial change across their school and the system as a whole. This culture has more of a service orientation and benefited from some of the more complex reflective practices identified.

**Theme 4: Learning as an Ongoing Reflective Process and Practice**

Some of the most current literature frames the importance of advocating for more open, reflective practices among professionals wanting to learn and be part of a developing culture of learning.

**Reflecting, Questioning, Seeking Relevance, and Challenging the Status Quo**

Many participants reported that it was very important for them to reflect and seriously think about their own meaning, purpose, and values. Questioning is fundamental to reflection and to deep learning. They believed this was needed on an ongoing basis, requiring time, space, and willingness to listen to their own inner voice and to their colleagues.

We talk a lot about the self-reflective practitioner. We pay lip service to it. I think the reality is most people’s lives are busy, their thinking time is that half hour driving to and from school....They just genuinely cannot find the time to do that deep reflection. (A 1, Secondary Principal)

You need the summer to continuously reflect and I do. I am constantly reflecting and reading. I am doing things, I am looking at things and it...starts to take over your whole life but that is ok....You learn on your own time, your own resources....If you are not in it to learn, you are in the wrong job. (A 5, Secondary Teacher)
Two secondary principals (A 1 & B 1) explained that they were finding it difficult to fully integrate deep learning and reflection and practice into the school environment. They felt they needed more time and, in some cases, to unlearn and make significant change based on the learning to date:

We just need to step back and say: what have we learned from this and what still needs to be done as a result of this....We need time to absorb all this and figure out what is useful. We have tried our best to continue the learning in the way that makes sense for our staff but there is such rich information there….We would love to spend time to go through the materials and decide where it gets to happen….We are just starting to feel some sense of control over all the resources that exist here....How do we make coherence out of all these things?
(B 1, Secondary Principal)

A significant number of participants throughout this system were questioning the status quo and challenging the basic assumptions related to the focus on hard data and what the data really means. Is it relevant? Are we really addressing the complexities of the problems and issues we face? Is this what education is about? Is this what my job is about?

Many schools exhibited some of the qualities and characteristics of learning systems or learning organizations. Participants reported that they would like to see more opportunities for feedback processes and empowered deep dialogue. The following quotations illustrate this deeper thinking and questioning.

I think what happens at every level (classroom, school, board) is that you create a practice that is very effective so you institutionalize it and then maybe down the road, you have lost the effectiveness, but you are not even questioning it. You probably questioned it a lot at the beginning when it was newer….Is it effective now and meeting the needs as when it started....It is the ability to ask your system, the practitioners these really tough questions and then being able to hear what the answers are. (A 1, Secondary Principal)

**Looking for Big Picture Patterns**

Many participants reported how important it is to have people throughout the school who take the time to focus on the bigger picture patterns:

We need to just scale back a bit, and point out the connections between these pieces, and present them in a different way. It would be very helpful to have a
leadership role in a school that focuses on and values this as their job – to see it as a valuable piece of the puzzle to look at programs holistically. It could be anyone with awareness. It needs to bridge that gap between what the system is thinking – the big picture – and what is actually playing out in the schools or in the leadership teams….It is easier to do this with a colleague who is one step ahead of you or three steps ahead of you on the ladder. This needs to be explicit before it becomes implicit, because some of us don’t pay attention to it. (B 5, Secondary teacher)

One principal who worked across both elementary and secondary systems provided some insights into some of the differences in the cultures of learning between the elementary and secondary systems. He also explained how looking for patterns was so important to continuous learning processes.

Elementary is very big and they have a practice of not voicing their opinions and concerns….Elementary principals might also feel more alone as there are fewer elementary vice-principals and therefore no one to talk with and share ideas and concerns. You begin to feel hopeless after a while. They do not have support systems in place to change the way they reflect and practice. They have been given so many tasks to complete as the system wants to make it look accountable…..This is getting rid of the flexibility and people are feeling pushed to do things….These tasks are not meaningful to them and they feel they don’t fit into the system….They are losing their diverse talents…and the things that they care about.

Elementary does not have the same venues and structures for communication to voice their concerns and for the patterns to emerge. There are networks but it depends on what the purpose of the networks are – are they one way or two way? Teachers need to be valued and appreciated or this can trigger negative emotional feelings. You need to feel your work is worthwhile and you want to come to work. You need to feel abundant and useful.

Secondary is better connected, integrated and they are smaller. They did not have to change to fit into a system that was determined at the top. Secondary is accountable in different structures – credits and marks. The secondary system is better able to see the bigger picture and get the patterns out on the table – to discuss these patterns and issues with their colleagues. You have to be open enough to see the patterns so people can talk about them and learn from the patterns. When you are able to get the patterns out and reflect on them together, then you can begin to address them. (DL 2, District Leader)
I went back and asked a small number of district leaders about these differences and patterns. They confirmed similar understandings.

**Paying Attention to Energy and Eliminating Bottlenecks**

A number of teachers in this school system were beginning to more fully appreciate and understand how to create complex change and continuous learning in their own school environments and across the entire system. They reported how this involved changing the culture, tapping into energy, moving people forward, and connecting all three system environments — leadership, a culture of continuous learning, and interrelatedness of work and life.

During periods of ongoing change, confusion, disorientation, and disturbance were also reported by many of the participants. They recognized that this was integral to continuous, deep learning, and change processes. They described how deep learning was interrelated to feelings of loss and change and also to balance, equilibrium, and disequilibrium. It can also be related to learning something new and unlearning some old patterns and behaviors of thinking. It can be very stressful and takes time to get through. Individuals wanted to be supported during these disorientating times and processes.

One elementary principal (H 1) explained that when she first heard about some of the new initiatives, she often felt very confused and disoriented for a few days. She described how she talked with her colleagues to develop a more coherent picture and feelings about the change. Over time, she was able to re-orient herself to work towards major changes and ensure the change was more meaningful to her.

We also learn from the concerns expressed through some participants. One concern expressed across the entire system was overload. Many participants felt the Ministry was asking too much and that the school district was not doing enough to mitigate these perceived demands. Most interviewees felt that this concern had to be addressed for the system to be healthy and sustainable.
The need to buffer and protect staff from overload was a strong and constant message throughout the data gathering process. Buffering seemed to help people deal with all of the ongoing, complex changes. It slowed the process down a little, giving them time to adapt and figure out how they might address or be part of these changes. If they were not able to address the change, then they communicated this to their supervisors and the broader system.

Conclusion

This school district has a very strong culture of continuous learning. Learning which is meaningful, relevant, and deep (double-loop learning) was reported to be the most health promoting and sustainable on an individual and organizational level. Learning in this school district involved a number of diverse learning approaches. These included appreciating diverse ways of knowing; embedding learning into processes and relationships; practicing creativity; encouraging innovation and risk-taking; and learning through ongoing reflective processes and practices. These are all foundational to the health, well-being, and sustainability of individuals and the organization. Some areas of the system were more engaging and encouraged diverse ways of learning and knowing. Other areas were utilizing more of a top-down directive learning approach. There were significant activities to encourage collaborative learning and sharing as well as many top-down new initiatives coming from the Ministry that needed to be embedded into the overall learning environments. Participants wanted more emphasis on their individual learning that was relevant to their needs which may include mentoring and coaching.

System Environment 3: Interrelatedness of Work and Life

This system environment provided the richest data and the most diverse themes. The 60 individuals provided their in-depth experiences, ideas, and feelings in relation to the interrelatedness of work and life. Interrelatedness was defined as “to place into mutual relationship” or “mutual or reciprocal relation or relatedness” (Merriam-Webster, n.d.).
The following shows the five key themes and sub-themes identified under System Environment 3: Interrelatedness of Work and Life.

INTERRELATEDNESS OF WORK AND LIFE

THEME 1: Self-Awareness: Know Yourself, Values, Worldview, and Strengths

THEME 2: Finding Balance Through Approaches to Change and Structures
- Soft and Hard Systems Approaches to Change
- Structures Restricting and Promoting Health

THEME 3: Life Stages and Generational Differences

THEME 4: Awareness and Service to the Whole: Empathy, Forgiveness, Ecological, Spiritual, and Global Well-Being
- Emergence of Compassion, Empathy, Caring, and Forgiveness
- Contributing to Something Larger Than the Self

THEME 5: Appreciation of Loss, Change, and Letting Go
- Implications of Leaders Retiring
- Balancing Leadership Approaches

As we come to understand and further appreciate the interrelatedness of work and life, we recognize that we are open systems nested within other open systems that all interrelate and influence each other in synergistic and often complex and unanticipated ways.

The data revealed the increasing complexity and consciousness of systems (individuals and collective) as participants came to appreciate a broader understanding of health, well-being, and sustainability of the whole. Many participants gained a deeper and broader understanding of
how their own individual health, well-being, and sustainability were interrelated and nested within the health and well-being of our society, our planet, and beyond. This finding became a motivation for researching complexity and consciousness and ultimately framing and developing a Reflective Framework as discussed in Chapter 6: Patterns.

“A certain level of consciousness is required to be able to conceptually perceive the interrelated nature of life” (Beatson, 2007, p. 18). This assertion is supported by the work of Kegan (1994) in orders of consciousness; Beck and Cowan (1996) in spiral dynamics; Schlitz et al. (2007) in social consciousness; and Teilhard de Chardin (1955) in complexity-consciousness.

Capra (personal communication, September 2011) explained that our consciousness expands; as we become more conscious and complex, we develop higher levels of compassion and empathy. The Dali Lama (1998) also asserts that compassion requires a certain amount of consciousness. Interrelatedness exists whether one is conscious of it or not (Beatson, 2007).

The principle of interrelatedness is an underpinning of systems thinking, environmental thinking, and a broader conceptual approach to health, well-being, and sustainability of individuals, communities, and the planet. Further, interrelatedness can also be viewed as a spiritual underpinning of life that helps us to understand life energy, life force, power, and spirituality of each human being, all other living creatures and our natural environment.

An increasing sense of interrelatedness becomes manifested in our lives, our work, and in the way we lead and learn. Interrelatedness has been studied for many years in relation to the context of ecology and the development of human consciousness. Several theorists and researchers (Capra, 1996; Hancock, 1996b, 2000; Hargreaves & Fink, 2006; Somerville, 2006; Suzuki, 1997) have explained that a sense of interrelatedness, spirituality, or connection to the greater whole is important in order to address the most complex problems we face.

This area of the interview process – examining the interrelatedness of work and life - resonated for the majority, with many finding this area very relevant and meaningful to them.

About half of the 60–75 minute interviews were spent on the interrelatedness of work and life system environment. Many participants indicated that they found thinking about and responding to questions for this system environment stimulating. Many said they prepared for the interview process ahead of time. Some participants said that they had talked over this aspect
of the interview questions and process with their spouse or partner and had seriously reflected on the important implications for their whole life. Many participants made a particular point of thanking the researcher for giving them the opportunity to talk about this important aspect of their lives. Many reported that this was the first time someone asked for their opinions and ideas about health, well-being, sustainability, and in particular about interrelatedness of work and life.

Responses were generally organized into three basic patterns of interrelatedness of work and life. The first grouping of participants focused their responses mainly on their individual needs in relation to work and life. This included balance, flexibility of work hours, work organization, design of work, and the personal influence of work on their individual health and well-being and that of their family and home life. These people mainly utilized a ME orientation to how work was influencing them and their individual health, well-being, and family life.

The second grouping focused both on the ME and the WE, broadening their orientation to address the collective. This related to their colleagues and how they worked together to create an environment that promoted their optimal health, well-being, and sustainability. While they were conscious of individual work and family life opportunities and challenges, they also paid significant attention to the broader community.

The third grouping addressed the ME and the WE and also expanded their thinking and consciousness to include an US orientation to life. They talked more globally about how we are all interrelated.

This system environment provided an opportunity for the participants to really examine some of their deepest beliefs, values, and consciousness. It was an opportunity for them to deeply reflect on what was important to them in their work and lives and beyond. Some participants were more focused on their daily needs and overload issues. Most participants reflected more deeply and talked about their place in the world in relation to their deep calling in education and what they hoped the education system could do for children and youth.

**Theme 1: Self-Awareness: Know Yourself, Values, Worldview, and Strengths**

Participants reported the importance of becoming more self-aware and appreciating their own unique qualities and that of others. They believed that leaders needed to be in touch with their own values, strengths, and capacities through inner knowing. Participants reported that all
leaders needed to know the people with whom they work closely. Then they said they could try to address and support their individual and unique needs. They reported that leaders who were more highly conscious and holistic and felt comfortable with themselves were more flexible, open, and authentic. These leaders were more secure and better able to open up, be vulnerable, and be confident taking risks and making mistakes.

Participants in this study tended to draw on more collaborative, emergent, and integrated systems leadership patterns. Participants reported that these leaders did not just delegate tasks to their staff, but found out what each individual staff person would like to do, how this connected with their unique talents and strengths and their overall goals and purpose in life.

Many teachers and principals reported that leaders who knew themselves and their inner motivations were perceived to be much more effective and humane leaders. Such leaders were often less selfish. They wanted to contribute to something larger than themselves rather than being motivated by promotions, power, and external recognition.

Many of the teachers reported feeling connected to the broader society and were beginning to feel more connected to people around the world. Many leaders had a deep understanding of the ecological movement and had significant insights into their interrelatedness with others and the planet. They shared ideas about how to honour this relationship and help students to understand this interrelatedness.

Many teachers interviewed had taken significant time and energy to reflect on their own values, motivations, and life journey. These included pursuing formal leadership positions; returning to school to complete more formal education; and making personal decisions about how much time they wanted to put into their home and work lives. While they recognized that both are interrelated and not separate silos, at certain times in their lives they needed to spend more of their energy on their children, their aging parents, and other responsibilities.

This system environment highlighted many of the inner tensions and paradoxes which many of the leaders across this system were experiencing in relation to creating health, well-being, and sustainability on an ongoing basis. This is described further in Chapter 6. They reported how they were trying to work towards finding or creating dynamic balance and connecting all of their own important life goals. They also described how important it was to pay attention to their inner purpose and calling in life, support their spouses, partners, family
members, extended family, and also attend to their other responsibilities. Qualities such as self-awareness, knowing one’s inner motivation, being supportive and empathetic, and appreciating the whole person were reported by many participants as being very significant.

I am more conscious now of my inner motivations, my values, strengths and weakness, and my leadership potential. My father just passed away and I have been diagnosed with a health issue. I need to give myself time now. This life crisis has really helped me to become more aware of my own priorities and values in life….My principal was so compassionate and caring and this made all the difference. (B 3, Secondary Teacher)

A district leader (DL 2) reported that is important to demonstrate character and be empathetic, caring, and respectful.

**Theme 2: Finding Balance Through Approaches to Change and Structures**

The second most dominant theme in this system environment was balance and how both individuals and the system could address and create greater balance and also ensure ongoing opportunities for renewal, rejuvenation, and resilience. Many participants talked about having a sense of balance, the ideal of balance, a feeling of balance, and being out of balance. They recognized that being out of balance for periods of time was alright as long as one was consciously aware of this and worked to bring one’s life back into balance as needed.

Balance was viewed as an ongoing process that also involved growth, development, change, loss, and rejuvenation.

A number of participants, particularly at the school level, reported initial discussions that were beginning to address the underpinnings of what it meant to be a healthy and sustainable system. These conversations were about healthy children, youth, adults, and the system as a whole. People across the school district were becoming more conscious of how their system was able to create and co-create health, well-being, and sustainability.

Balance was one a key aspect discussed in the interviews. Many participants talked of how they noticed the school district going through periods of balance and being out of balance. A number of participants described how they had felt during these periods, as they have come and gone over the years, shifting back and forth from a very closed, top-down, prescriptive approaches which focused on outcomes to more openness, creativity, and emergence.
A number of participants explained how they believed the system itself was currently too far out of balance and this was influencing their health and well-being. They reported, as previously mentioned, that there was too much emphasis on external mandates and outcomes through imposing a very narrow definition of student success and achievement. This approach was not tapping into the unique and diverse synergies of the whole. Certain areas of the system, in particular, had developed an excessive focus on rational and academic knowledge and were not tapping into other diverse ways of knowing (as discussed in System Environment 2).

**Soft and Hard Systems Approaches to Change**

Some participants talked about how this study was more focused on the soft systems approach to change. I went back to the literature to understand this change approach.

It appears that hard systems models of change, although necessary in some defined and agreed situations, are not sufficient to explain organizational messes and are extremely limited in providing a model for planning and implementing change in these situations....Hard system approaches to change require the setting of quantifiable objectives against which they can be judged. This assumes there is little disagreement about what the change objectives are. (p. 315)

The research approach is limited in that its techniques are more applicable to mechanistic systems (which lend themselves to performance definition and measurement) than to purposeful human behaviour (which includes many immeasurable elements). In addition, given that a mess is not just one problem but a complex set of problems interacting one with another, decomposing the mess to deal with one problem at a time (as this approach would suggest, loses the essential properties of the larger, more complex whole). (Senior & Swailes, 2010, p. 313)

Many participants described how the system continued to shift back and forth over time. At this particular time, the system was creating what might be called a hard systems approach which people called by different terms: a business approach, a performance approach, an outcome measurement approach, and most frequently a top-down accountability framework.

This accountability framework, or hard systems methodology and approach to systems change described by participants, was particularly dominant in the elementary system. According to many participants, this was coming down from the Ministry of Education and was creating an environment that was more task and numbers oriented - a standardized, one size fits all approach. The term *one size fits all* was used by a significant number of participants in the
interview process. Many participants reported that the system did not focus on the human side of organizational change; appreciate the diversities and complexities of deep systems change; or recognize the continuous learning of individuals and the organization.

Some schools were using a worldview that appreciated more of a holistic and organic approach to change. Principal and teacher leaders were more open and recognized the whole child, the teacher, and system. People were trying to ensure a more balanced and diverse approach to education, to systems change, and to learning. One principal discussed an elementary system committee.

We heard the negatives, the perceptions out there that the principal’s job is all hours of the day and night and we do not find balance. You lose touch....We also brought people in who did want to become a vice-principal and a principal…. There were people with very hard feelings about the process….Some of the perception was that everything is top down….I believe that the elementary system needs to be more balanced, and listen to their staff at all levels. This is an underpinning of beginning to move to a more balanced and healthy system. (J 1, Elementary Principal)

**Structures Restricting and Promoting Health**

Some participants reported that certain structures needed to be reviewed. They explained that some structures restricted their health, well-being, and overall capacity for renewal, rejuvenation, flexibility, and ongoing aliveness that is required in healthy, sustainable systems. These structures needed change as required, becoming more flexible at certain points and perhaps more constraining at other times.

Some of the participants suggested that structures in both elementary and secondary panels needed to be reviewed on an ongoing basis in order to ensure optimal health, well-being, and sustainability. As people become more aware of the structures in which they are embedded, they can ensure that they work for everyone. This is similar to Olson and Eoyang’s (2001) idea of designing a container that works best for the organization within the context. They describe some containers as *tight* and some as *loose* and also uses the terms *organized* and *self-organizing*. These concepts are examples of Principle 9: Emergence and Design. It became clear through the interviews that participants were becoming much more aware of the
environments they were creating together. They wanted to have more input and influence into the level of open design, emergence, and degree of flexibility.

The elementary system was fairly tight and constrained. A number of principals and teacher leaders reported a lack of input, voice, and meaningful engagement in decision-making. The secondary structures were reported to be healthier. While it had some guided aspects, overall the schools were moving towards being more self-organizing – autonomous and making decisions, working together, and taking responsibility.

Elementary is smaller, they are less complex structures and programs, they are unidirectional in terms of their focus which is more on curriculum and instruction, more on English language learning, and more on relationships with parents....At secondary, you have more behaviour pieces, more acculturation. They are different types of organizations. It requires a completely different way of functioning. (DL 12, District Leader)

Elementary is like four provinces. Secondary is like a province, but we are a regional team. We go across the region and have high interactions. Our senior leader comes to our meetings and spends time with us explaining and communicating with us. We talk and ask questions. Elementary and secondary have very different cultures, structures, and size is key. In elementary, there is just compliance and not a lot of empathy....People need to feel connected and have ownership and we need a participatory process to get there. (E 1, Secondary Principal)

Based on the research interviews, the secondary system was coming into what Spencer (2004) referred to as the “self-reliance” mindset (p. 18), and some of the most effective leaders have moved into the “alliance” mindset (p. 22).

It is clear that both systems were growing and becoming more aware. There were leaders in both systems who could be viewed as displaying high levels of complexity and consciousness and developing high levels of self-reliance and alliance thinking. The consciousness and awareness of these leaders was developing and they discussed this openly.

As we develop increased complexity and consciousness, we also need to pay attention to the structures and processes that we are embedded in and can have a significant influence on our dynamic balance. This is a key finding.
There are many structures that can restrict the health, well-being, and overall renewal and growth of individuals and the system as a whole. For example the system…and the school plans are important and helpful, but I think it is good that it is no longer so directly guided. I like structure, here are my options, and here are my resources. This allows a point of reference, but also each school needs to have a sense of their own autonomy [emphasis added]; their own sense of how they are going to address those priorities based on their own unique needs and based on the individuality of that school. (C 3, Secondary Teacher)

Networks are another structure that was identified as being both positive and negative for the ongoing development of health, well-being, and sustainability. Participants reported that networks can be open and self-organizing or they can be closed, predetermined, and directive. If networks are designed to direct people to predetermined goals and outcomes, then the structures can become very restrictive and closed. Participants expressed their concerns that in these closed structures, they did not have input and opportunities to change the networks and they did not feel they owned and controlled the networks. In these areas of the system, networks were used to get work done and deliver key initiatives.

In other areas of the system, networks were more grass-roots driven, open, emergent, and owned by the community. These types of networks function very differently. In self-organizing networks, people experienced a much greater sense of ownership, commitment, flow, and connection. These networks connect people to share information and resources. Participants were free to change the overall goals and ways of functioning to ensure the networks met their unique needs. These networks were much more health promoting and sustainable and encouraged continuous deep learning.

A small number of participants had some very helpful insights about how health, well-being, and sustainability can be valued, championed, fully integrated, and addressed throughout this system. Several participants said a champion at the Ministry and the district was required to make this happen. A participant had been working in this area for most of his career reported:

I do not think anybody wants to go out there and revolutionize what a school day looks like. You know once you get into a larger system of things, it is pretty much a cookie cutter approach…because everybody wants consistency and there are merits to that. But I mean if you really want to move a group….You have got to shake it up....You need somebody with foresight leading the parade and with the
authority… to support what comes next....If key messengers move or key supports move, the whole sustainability just falls flat. (E 3, Secondary Teacher)

**Theme 3: Life Stages and Generational Differences**

This theme was reported by a vice-principal, principals, and teacher leaders who were considering taking on more leadership responsibility. Many younger professionals were very concerned about the lack of attention to work and life interrelatedness and their health and well-being. This particular theme is also related to increased flexibility, flow, and responsiveness of the organization.

Principals are at very different stages of their lives. For some their children are grown up. But many young principals have families. This is a significant system issue that needs to be addressed. Younger administrators are coming through the board and they have families. The board cannot ask them to give up their family life and you cannot ask them to give up their lives. There are going to have to be major changes to accommodate this.

The board has started to support administrators by giving them three personal professional days that can be used at our discretion. This allows principals and vice-principals to feel that they can take days off. I have personal days and I enjoy them. For example, I go with my kids on their field trips. I feel like a real parent. We need to find ways to have more flexibility in our thinking about work organization and flexibility for our formal leaders. What if a vice-principal wants to work part time? I don’t know why they couldn’t. If it works out personally for you in your life, and you are happy, you would end up putting in more time anyways because that is the nature of the job. Also, they could bring back more of the retired principals for a short term. It is just a matter of being creative and not doing things the way they have always been done. (J 1, Elementary Principal)

A number of more experienced principals reported that they were trying to support younger people as they come into this new responsibility through mentoring and coaching. These younger professionals, however, were finding it extremely difficult to manage and live healthy lives and find a balance between their work and home lives. One principal (G 1), who was planning to retire shortly, was concerned that many younger vice-principals and principals (particularly in the elementary panel) were not able to manage this level of stress.
Many new administrators in the elementary panel were much younger and had family responsibilities. With the turnover and growth, the need for more principals in the elementary panel was making it more and more difficult for people to handle the demands. They reported they would like to see more flexible arrangements regarding job sharing and agreements about having time to themselves in the evenings, away from emails and technology.

In the secondary panel, this concern did not seem to be as significant as many principals were older, more mature, and had more life experience. In many cases, their children were grown up. However, they identified that the job of the principal was huge.

Two secondary principals (A 1 & B 1) reported that they did not believe that they could handle this job if they had children. Two other secondary principals (C 1 & D 1) who were planning to retire in the near future expressed concern about workload. A teacher who was quite involved with the teachers’ federation added. “I think your study is very good because I think that clear message is very necessary and making a good point….How are requests being interpreted by teachers and why is that maybe not functioning the way we want” (J 3, Elementary Teacher).

An appreciation of life stages and generational differences in attitudes and approaches to work and life is required. A significant part of this is a higher sense of consciousness.

Theme 4: Awareness and Service to the Whole:

Empathy, Forgiveness, Ecological, Spiritual, and Global Well-Being

This theme was related to the emergence of empathy, forgiveness, and other deeper human spirit qualities. This includes developing a greater contextual appreciation of being part of something larger than ourselves. These important aspects are interrelated but have slightly different features as reported by the participants. The first aspect is related to feelings and increasing consciousness that changes the person and sometimes groups of people. The second aspect explores what action they take and with what service they would like to be engaged.

Emergence of Compassion, Empathy, Caring, and Forgiveness

A number of participants reported that in more open, emergent, and curious health promoting leadership and interrelatedness environments, there seemed to be an increasing
development of empathy, caring, forgiveness, and a growing ecological awareness. One principal explained emergent changes occurring in individuals, teams, schools, and across the world.

You start with this image – humanity is one. The discrepancies or the inequalities have to be addressed and diversity has to be celebrated….It is a culture of well-being nothing more than that….A vision that says we are all interconnected. (E 1, Secondary Principal)

A teacher in a secondary school who teaches environmental studies explained.

That’s funny because I almost approach it from a different perspective. I take it that a healthy planet and healthy systems on the planet are totally connected to healthy people and healthy environments….People are becoming aware that their own health depends on the health of the planet and the way they live has an impact on the planet but also on their own well-being....We stop to look at the big picture. (E 4, Secondary Teacher)

Many teachers and principals reported how people were becoming more connected and developing deeper feelings of compassion and caring for others, both locally and globally.

**Contributing to Something Larger Than the Self**

This study emphasizes the importance of caring, empathy, compassion, and forgiveness. These qualities are more than human characteristics and emotions as they signify the maturing of an organization and society that is moving together towards a more empathic worldview. This growing appreciation and intensification of empathy, care, and compassion was evident particularly in the schools that had higher, more emergent patterns of leadership, a culture of learning, and interrelatedness of work and life. “A distributed, collaborative, non-hierarchical society can’t help but be a more empathic one” (Rifkin, 2009, p. 543).

This theme was also identified by a number of participants who were reporting an increased awareness or consciousness of interrelatedness with their colleagues and communities, as well as on a global basis. Participants reported feeling that they were becoming more caring and compassionate but they also wanted to do something, to be of service, and to make a larger contribution to education and to improving the world.
A few participants were specifically interested in ecological sustainability. They were working specifically on changing societal attitudes and behaviours related to materialism and social problems in society. They were becoming more aware, concerned, and active in these areas on a personal and professional basis. Again there appears to be a higher awareness and consciousness of these social issues and concerns in the more emergent and curious distributed leadership environments. This is discussed in more detail in *Chapter 6.*

In this study, it was evident that with more international travel, working in different countries, and more global connectedness, teachers, principals, and senior leaders were changing. A teacher commented:

I volunteered in Africa one summer and I took my family with me. I was involved in the trainer session with teachers. I reflected on this experience when I came home. It has changed my life….I enjoy everything I do and this is how I want to spend my time. I want to appreciate everything I am doing and not come from a place of resentment, hardship, or burden. (B 4, Secondary Teacher)

A district leader looked at the concept of increasing consciousness and awareness and contributing to something larger through a more spiritual lens. “There are seven billion people on the planet…if there are thousands of you making that little difference every day, the cumulus of good is significantly better and that is important” (DL 12, District Leader). An elementary teacher added. “I really believe we are global citizens. We are all part of the world. I am involved in the Voice of Africa and we have raised $X for the Stephen Lewis Foundation” (I 2, Elementary Teacher).

Contributing to something much larger than oneself leads to a recognition that balance, renewal, rejuvenation, and resilience – individual and organizational – are critical to creating a health promoting, continuous learning, sustainable education system. Knowing yourself and increasing awareness (consciousness) were strongly associated with more emergent to curious distributed leadership environments. Participants in these environments also reported experiencing more care and compassion as well as wanting to give back and be of service to others and to the world. They felt that they were making a contribution to education as a personal and professional calling, and on a broader basis, to society and to mankind.
Theme 5: Appreciation of Loss, Change, and Letting Go

This theme of loss, change, and letting go came up in many interviews under *Leadership, a Culture of Continuous Learning* and *Interrelatedness of Work and Life*. This seemed to be the most predominant theme in the Interrelatedness of Work and Life system environment. People related their own personal losses and grief and the difficulties of deep and transformative change processes. There was a strong subliminal energy that resonated in relation to loss. I predict that there are going to be many major changes going on in relation to people leaving the organization: changes in leadership, retirements, and structures and processes. In addition people will move on to new growth opportunities after many years of commitment to and love for this system.

This was a very important theme that emerged as I listened carefully, trying to understand this deep process of transformational change that seemed to involve pain, grief, loss, unlearning, disorientation, and disequilibrium while also creating openings and energy.

**Implications of Leaders Retiring**

There were a number of principals who were in the process of retiring. For many, this was a significant change as many of them had dedicated their lives to their organization and to the education system. One elementary principal and two secondary principals had made these decisions. Later, one additional secondary principal made this decision eight months after the interview. At the time of the interviews, the Director and other senior leaders were also in the process of retiring.

This presented a unique opportunity for this study as many of these leaders were very open and reflective through the interview process. They reflected deeply on their personal and professional experiences; their own personal sense of loss and change and accomplishments; their contributions to this school district; and their own inner calling to education and youth.

There were also many participants who talked about their personal and family losses and change processes, many of which contributed to their overall growth and development. Many participants talked about issues and challenges related to family members, personal illness, loss of jobs, decisions to change professions, returning to school, volunteering in developing countries, and other major life crises and periods of disequilibrium and change. Many of these
participants reported how these life changes and losses significantly influenced their worldviews, values, and consciousness. A number of participants also reflected on the district and how it was also going through significant change and loss at this time.

Our Director was a leader for the people. He had such charisma and made sure he was visible. He would remember everyone’s name and always came to events. The day he announced his retirement, and someone was online and told the class, there was silence. People were teary eyed. They all felt rightly or wrongly that they had a personal connection with him. They had a voice. (DL 9, District Leader)

Many participants throughout the system talked about how important the Director’s attitude was to the system as a whole. He was reported as friendly, approachable, a wonderful listener, open, flexible, and appreciative of diverse ideas, opinions, people, leadership approaches, creativity, and innovation. While the final interviews were being conducted, many people began to talk about and anticipate how great the loss would be to the system as a whole when he retired. There were also a number of other leaders throughout this organization that were also making important decisions about leaving and retiring. For some they had decided that this was a good time to retire before the new leadership would come and they would have to face significant changes.

While this study was not able to address this significant loss in the system due to the timeframe of this research, it is important to mention it here as an example of loss, change, and letting go as people and organizations move on to new stages of growth and development.

**Balancing Leadership Approaches**

Administrators, union leaders, and senior leaders talked about how important it was to continue to create a balanced approach to leadership at all levels of the system. When they talked about balance this involved ensuring diversity in particular. Many of the participants reported that this balance, integrity, diversity, and wholeness needed more of an intentional focus. This can be viewed as an important systems capacity to ensure balance, well-being, and sustainability. An elementary principal explained how important it was to ensure both the soft and hard skills in education:
I think my skills tend to lie in the consensus building, team kind of approach to dealing with things....One of the things I see though here in education is I think as a general rule education tends to attract people that are more compassionate, more forgiving, more understanding. Sometimes that’s a really great thing. Sometimes that’s not so great....I try to bring some of the business side to education....My undergraduate was in business administration so when I came out of school I spent a year in a couple of different companies....I think one of the things that [our Director] has done a fantastic job of and really was a model for the system....When you are building your coordinated superintendent team...you want a balance....You need a balance of people at that senior leadership level to bring different [skills and attitudes]. (I 1, Elementary Principal)

There is a real need to respect and appreciate different ways of seeing the world, diverse strengths and to ensure flexibility in a system. “I think we need flexibility. Maybe this is the best word to describe it...in that it is not a cookie cutter approach to things” (I 1, Elementary Principal).

One senior district leader talked about different approaches and working styles.

We have very different types of leadership and different types of working styles. When they come into conflict, it is huge. I mean you take the autocratic leader and the person who has a high level of need for cooperative collaborative leadership – that’s bad news. (DL 18, District Leader)

Many of the participants reported that while there can be conflict with diverse perspectives and worldviews, it was very important to intentionally develop diverse teams and appreciate diverse values and worldviews.

Conclusion

This system environment encouraged participants to reflect deeply about their own lives and how they related to their colleagues, their work environment, and broader meaning and purpose in life. Deep spiritual and ecological underpinnings came out of this theme as people thought deeply and reflected on their life and the importance of their deep values and meaning and purpose. Many of them talked about their mortality, their ongoing spiritual energy and life force, and what was important to them (Johnson, 1998; Kubler Ross, 1969; J. Miller, 1996; L. Miller, 2009; Moore, 1992). This theme offered a lot of very important insights into the
principle of dynamic balance and the ability to deal with change and learn at a deep level. The findings from this system environment resonated with how important it is to be open and vulnerable and appreciate disequilibrium. The ongoing flow and shifts of equilibrium and disequilibrium at many levels were being felt by many of the participants in both their personal and work lives. They described how they tried to become more aware and conscious through these processes and made ongoing decisions about their work and personal lives to promote their health and well-being and that of the organization and their colleagues. They also reported the importance of loss, change, and letting go and how this is integral to their ongoing health and well-being and growth. Many participants were very aware of and discussed the significant influence of their supervisors, colleagues, and panels on their overall health, well-being, and sustainability and that of the organization.

Synergy Point: Meaning, Purpose, and Consciousness

Meaning, purpose, and consciousness is a major theme that emerged across all three system environments: Leadership, a Culture of Continuous Learning, and Interrelatedness of Work and Life. It is also one of the most important of the 12 Principles of a Health Promoting, Continuous Learning, Sustainable System.

The following frames the synergy point across all three system environments.

THE SYNERGY POINT:
Meaning, Purpose, and Consciousness

Importance of the Synergy Point to Health, Well-Being, and Sustainability

Meaning, purpose, and consciousness embraces the vision, values, and mission of the organization as well as the individual’s values, sense of meaning, inner purpose, life calling, sense of coherence, and sense of the spiritual and connectedness.
Of all the themes, this particular one resonated consistently across all three system environments. The majority of the participants responded that this sense of meaning, purpose, and consciousness was holding the system together for them as individuals and as a whole school district. As such, it is conceptualized as the synergy point. Attention to the many diverse voices explains why meaning, purpose, and consciousness were so very important.

**Lack of Societal Value of Health**

A significant number of teachers and principals and a small number of district leaders expressed their concerns about our overall lack of attention and value in society to health, well-being, and sustainability of life and the extreme focus on work in our society. Teachers reflect on this aspect in the following illustrations.

As a North American society we live to work instead of working to live and I think that’s backwards. In Europe most of the time it’s the opposite....I have lived overseas....It is a different idea of what the purpose of work is. Here your life is your work....The first question anyone asks you is what do you do? Over there it is you are working so you can support the things you want to do: family, travel, vacations....A lot of people...tend to be a little bit more well-rounded because they do more things and they experience more things than we do here.

(B 4, Secondary Teacher)

I think the biggest concept would be the balance piece...that requires the balance of all three...not just attention by happenstance....But if you pay attention to it, you can make amazing [things happen] with both of them, because if someone is not quite balancing their work and their life and things happen everything is work, work, work, work, work, they are going to get burnt out....It should not be a backdrop...it should work the other way around....That part of balance and leadership, and culture of learning and continuous learning will be facilitated. (B 5, Secondary Teacher)

Many participants expressed their concerns about time and workload. They felt that they needed to have time in their personal lives and work lives to reflect and sort out the new learning. They needed to take time for themselves so that they could have a healthier and more balanced life. All of these work together in a synergistic way to support people to assimilate information, ideas, new worldviews, and to become better leaders and persons.
If we are too busy with leadership and learning, then we are not having the personal life that is so rich and fulfilling. It becomes a conscious choice. I think our culture puts a lot of strength and a lot of focus on production and efficiency—getting as much work done as possible in your day….Again it comes down to that consciousness and choice. Am I going to spend this time on my students or on my children? This becomes for a lot of people a very large ethical and moral conflict.

Efficiency is largely garnered by the health of the worker. If the worker is not well then the efficiency goes down no matter how much time they put into something. So I think definitely, the organization is failing to pay attention to the individual’s health and well-being. It has fallen on the individual to pay attention to their own personal health and well-being. (J 3, Elementary Teacher)

A vice-principal had a very similar view:

Personally I believe that in order to do the job that is expected of you, you do not have that personal time for your health and your family….There is a continual emphasis of work that has to be done and you want to do a good job and because of the personality or the traits of who you are, you want to make sure the job gets done. So if it takes 15 hours in a day, you’ll do it because there’s an organization, there’s kids in this building, there’s 75 teachers that expect something to be done….The bottom line is the work has to get done. (E 2, Secondary Vice-Principal)

**Coherence in Promoting Health, Well-Being, and Sustainability**

A secondary teacher (E 4) explained about the growing changes in attitudes about environmental sustainability and how our health and well-being are interrelated to the health and well-being of our planet. She was also teaching a course to students about the growing changes in our societal values and was concerned that the move to a student achievement focus at the expense of some of the broader well-being perspectives did not reflect her ecological and global picture of public education.

**Sense of Coherence and Fit Between Personal and Professional Lives**

The same secondary teacher expressed concern about balancing the opportunities and challenges in her school environment. For her, interrelatedness was a challenge.

There are two important aspects of addressing interrelatedness. One is to increase our own personal awareness of our own values, priorities and what is important to
us as individuals. The other is for the system to pay more attention to restoring balance from a system perspective. The individual and the collective or system both to have a role play in this….I think that many of us are like hamsters on a wheel and we are just so busy trying to keep the wheel going that we do not take the time off to look and see how we can restructure the wheel so it runs better. (E 4, Secondary Teacher)

Many teachers in the system reported that this was a major priority that needed to be addressed in order to ensure ongoing sustainability of the staff, the programming, the continuous learning, and the achievement of the outcomes as per the system plan.

**Tension Between Health, Well-Being, and Sustainability of the Individual and the Whole**

Did the system block or inhibit patterns of interrelatedness, health, and well-being? Participants responded that there were tensions in the flow, balance, motivation, and character of the organization as health and well-being were considered. This challenges the sense of meaning, purpose, and consciousness. A district leader offered these thoughts.

Some people compartmentalize and think about themselves with a focus on me. What are the benefits to me? The organization is there to serve me. It is a cash cow. Other people are more developed and perhaps have more life experience and have found a way to develop a sense of coherence and meaning between their potential and work lives, to bring their unique strengths and capacities to the organization and thus are willing to give more to the organization and be more of a servant leader – giving and receiving (DL 8, District Leader).

A district leader offered these reflections on the importance of reflection and values.

I think your study is very interesting, but you might be ahead of your time. I don’t think a lot of people in this organization are ready for this yet. There are a few leaders in our organization that are thinking this way. It is really a higher consciousness and it also relates to environmental sustainability. It has some of the same principles as our work in eco schools.….Perhaps there could be a framework or tool for reflection to inform future practice and to keep the organization moving forward.

Character is so important in all of this. Sometimes people within an organization espouse or say that they believe in certain values and this is not
played out in their actions and behaviours. People need to reflect on this as individuals and the organization also has to continue to reflect on this from a values perspective. There is a need for increased consciousness and awareness in this area. (DL 8, District Leader)

A number of participants reported that they believed there was a need to review the overall vision, mission, and values of the board and what is truly important.

**Conclusion**

The commentaries of the participants indicated that meaning, purpose, and consciousness was the synergy point that held the individuals and the organization together. They utilized a number of diverse terms to describe this, including coherence, meaning making, purpose, life calling, manageability, ensuring values are consistent and coherent, ensuring passion and fulfillment, service, stewardship, greater purpose, spiritual development, soul, spirit, and essence to name a few. They described what was important to them and how their professional work in support of the greater purpose of education had to be coherent with their own individual values, meaning, and purpose in life. Being able to connect to the deeper essence of their lives was essential to their health, well-being, and sustainability. It was also essential to the health, well-being, and sustainability of their work environment, the education system and beyond.

For some participants, this meaning, purpose, and consciousness was about ensuring coherence, manageability, while using their inner resources and life energy most effectively. For others they described this as having a higher goal and purpose in life, “a life calling”, “greater purpose” or “spirituality in health”. A small number of participants talked about meaning, purpose and consciousness, in relation to equity, social justice, peace and global humanity.
CHAPTER 6: PATTERNS

Chapter 6 builds on and integrates the original conceptual framework with the findings from Chapter 5: Diverse Voices through a new Reflective Framework. This Reflective Framework is a major finding of this study as it provides new ways to understand and dialogue about health, well-being, and sustainability within educational and other similar systems.

I initially identified different patterns of leadership through the thematic analysis and use of Hargreaves and Fink’s (2006) Stepping Up the Scale of Leadership Distribution. Through the ecological, holistic systems approach, I began to see that there was a major pattern of increasing complexity and consciousness of health, well-being, and sustainability across the entire school district. This is discussed in this chapter. I drew on this major system pattern to create The Reflective Framework: Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability. The Framework was then used to explore the major system pattern in each of the three system environments, which revealed what I refer to as the sub-patterns. I define patterns as deep, complex relationships between ideas that are nested within the major system pattern. The framework was then used to analyze and cluster the schools and leaders interviewed across this diverse system and to gain a more in-depth understanding and appreciation of each system environment. My Framework also illustrated that each level involves different relationships with meaning, purpose, and consciousness.

The four major tensions and paradoxes I discovered include: Organizing and Leading; Learning and Social Systems; Differentiation and Integration; and Diverse Values in Healthy Sustainable Systems. These tensions and paradoxes in a system create dynamic motion and synergy between levels of complexity and consciousness, because individuals and groups in a system tend to be in flux and occupy various levels at different times.

Background to Complexity and Consciousness

During my doctoral coursework, I was able to develop my own mindfulness and reflective practices which I integrated into this research design and process. These were informed by ongoing research and dialogue with external key external informants who frequently referred to the concept of complexity and consciousness.
I was originally introduced to the concept of mindfulness, mediation, and reflection through my professional work with dying patients in the late 1980’s (Kubler-Ross, 1969). At this time, I was involved in practicing therapeutic touch, helping to set-up a new hospice program, and organizing professional development for community health nurses across a large regional municipality. One of the major professional development programs was focused on holistic health (Church & Sherr, 1987). In the early to mid 2000’s, I learned more about and practiced different approaches to self-reflection and mindfulness (Cunningham, 2000; Davis, 2006; Kabat-Zinn, 1990).

I was first formally introduced, at the University of Toronto, to the concept of complexity and consciousness through Professor Jack Miller’s course, Holistic Curriculum, which involved daily meditation. In exploring these concepts further, I attended the Authentic Leadership in Action Conference (2009) where I met Geoff Crinean, Glenda Eoyang, and Margaret Wheatley. I subsequently engaged in personal communication with them. Reflection through meditation has become a regular personal practice.

Marilyn Schlitz, Ph.D., an anthropologist, and Geoff Crinean, Ph.D., a physicist, referred me to the work of Wilber (2001, 2006), Beck and Cowan (1996), and Kegan (1982, 1994). Schlitz (personal communication, February 2007) explained to me that leadership, a culture of continuous learning, and interrelatedness of work and life were part of a larger pattern of consciousness that she terms social consciousness. Schlitz explained how working across diverse disciplines changes perceptions and consciousness and helps people to see life’s bigger patterns.

Robert Kegan, Ph.D., Professor of Adult Learning and Professional Development, Harvard Graduate School of Education, has developed a theory of adult cognitive development that defines five stages of mental complexity or orders of mind through which people may develop.

His theory is based on his ideas of ‘transformation’ to qualitatively different stages of meaning making…. New information may add to the things a person knows, but transformation changes the way he or she knows those things. Transformation, according to Kegan, is about changing the very form of the meaning-making system - making it more complex, more able to deal with multiple demands and uncertainty. (Berger, Hasegawa, Hammerman, & Kegan, 2007, p. 1).
Debold (n.d.) and Thomason (2012) provide additional insights into Kegan’s theory.

My Reflective Framework builds on the significant work of many key theorists, researchers, and practitioners who are working across these diverse disciplines and who have developed theories and frameworks to identify big picture patterns in systems. Some of these theorists and researchers include: Arnstein, 1969; Barrett, 2010; Bateson, 1972; Beck and Cowan, 1996; Cunningham, 2000; Hargreaves and Fink, 2006; Hargreaves and Shirley, 2009; Hawkins, 2002; Johnson, 1998; Kegan, 1982, 1994; Martin, 2009; Maslow, 1954; Maynard and Meierens, 1996; Rohr, 2013; Schlitz et al., 2010; Teilhard de Chardin, 1955; and Torbert, 2004.

These theorists and researchers have also developed frameworks that have different levels. They identify frameworks that use between five and nine levels. They refer to these levels using various terminology: nested hierarchies, recursive hierarchies of looping, spirals, flows, ladders, stages, logics, waves, and ways. The levels outlined in my Reflective Framework are intended to develop an appreciation of complexities and consciousness as they related to health, well-being, and sustainability.

**Major System Pattern**

There is one major system pattern emerging from this research: increasing levels of complexity and consciousness in relation to health, well-being, and sustainability. This pattern allows us to conceive of meaning, purpose, and consciousness and all the interrelated themes in a deeper and more holistic way.

Bateson’s (1972) concepts of recursive nested levels and recursive looping patterns provide an effective way to think about the growth and development of systems (individuals and collectives) and how they can occur in a synergistic manner. This synergistic looping process can lead to emergence of new properties that enable thinking to shift from one level of complexity and consciousness to the next through reflection on values, beliefs, and worldviews. (Guddemi, 2010, Tosey, 2006)

This ongoing recursive looping also creates the tensions and paradoxes that are described later in this chapter. Participants in the school system described experiencing an ongoing pushing and pulling and shifting back and forth that created feelings of confusion, loss, and disequilibrium. As they went through periods of turbulent change, they tried to create a sense of
meaning and purpose based on their levels of consciousness. Their insights were key in my understanding of the levels.

In my analysis of the major system pattern, I began to see five different levels that help us to see how complexity and consciousness relate to our physical, social/emotional, intellectual, spiritual, ecological, and global health, well-being, and sustainability. These levels were the inspiration for my creation of the Reflective Framework that is outlined in the next section.

The Reflective Framework can also help us gain a deeper appreciation of diverse worldviews, mental models, and values in relation to health, well-being, and sustainability.

This thesis draws on an ecological, holistic systems approach to health, well-being, and sustainability. This approach can be considered an ongoing and evolving process involving transformational change that includes a fundamental rethinking of our whole self and our whole society. This rethinking involves our social, environmental, and economic mental models. It involves rethinking our underlying assumptions and values and their influence in health, well-being, and sustainability from an individual, organizational, community, and global perspective.

Complexity (in relation to health, well-being, and sustainability) in this study is defined as increasing differentiation and integration involving the ongoing physical, social, emotional, intellectual, and spiritual development of the individual and the collective.

As I explored the different levels of complexity and consciousness, I began to see them as nested hierarchies. Each level is subsumed into higher levels within the systems and provides the context for meaning and purpose at lower levels. This hierarchy, or spiral of complexity and consciousness, provides a framework for developing deeper understandings of health, well-being, and sustainability. It also provides us with an approach to understanding the tensions and paradoxes in an education system.

**Reflective Framework: Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability**

This section provides a brief overview of the patterns associated with each of the five levels (Figure 5, p. 171). As I outline the framework, I also indicate major theories and research that support the major system pattern.
While we cannot predict exactly what will emerge at each level, there are some approximate emergent qualities (Capra, 2002; Wilber, 2006) that are associated with them. “There are important emergent qualities that tend to come into being in a discrete or quantum-like fashion” (Wilber, 2006, p. 5). By focusing on one or more levels at the same time, we can see the characteristics and capacities of each level and how they advance the synergy of the whole system.

**Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability**

The following is a brief description of the five levels of my Reflective Framework. It must be emphasized that developing a consciousness of one’s own deep meaning, purpose, and consciousness is one of the most important underpinnings of health, well-being, and sustainability (Antonovsky, 1996). Kabat-Zinn (1990) explains that “health-related psychological traits include a strong sense of coherence, the conviction that life can be comprehensible, manageable, and meaningful” (p. 217). Antonovsky’s “sense of coherence” is a major health promotion concept discussed in this study. All five levels are important and add new perspectives and insights. As individuals and collectives develop greater awareness and consciousness, there is an increased emphasis on maintaining a dynamic balance between inner essence and purpose (individual/system) and our outer environments (Antonovsky, 1996; Kabat-Zinn, 1990). This is viewed in the literature as a way to promote health, well-being, and sustainability in a system. This quality of higher levels is also seen in the findings of my study in the comments by participants who I have clustered at higher levels.

The value of meaning and purpose for health is outlined in the famous work of Frankl (1959/2006) in *Man’s Search for Meaning*. He describes the importance of man being responsible for actualizing his potential meaning in life. He explains that “self-actualization as possibly only a side effect of self-transcendence” (p. iii). He “began to formulate an argument that the quest for meaning is the key to mental health and human flourishing” (pp. 157–158) thus “curing the soul by leading it to find meaning in life” (p. xi).

Figure 5 (p. 171) depicts the Reflective Framework.
Figure 5
Reflective Framework: Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability
At each level I have provided a synthesis of the characteristics associated with that level along with the supporting frameworks and theorists informing my framework. The Reflective Framework is hierarchical in the sense that lower, less complex needs are foundational (Levels 1 and 2) with levels of higher order complexity and consciousness (Levels 3, 4 and 5) spiraling upwards. As indicated by Wilber (2006, p. 5), the levels do not exist in isolation but are nested in a recursive hierarchy or synergistic looping process of increasing complexity and consciousness. The richness of each level is subsumed into the next. Individuals functioning at a higher level (e.g. Level 4) can spiral downwards (function at, understand, and appreciate) to lower levels fairly easily, while those at lower levels can strive for higher complexity and consciousness but need to grow into these levels over time. In an education system, schools can consist of individuals across several levels while the school itself can be seen as functioning at one or more levels.

**Theoretical Basis for the Framework’s Five Levels**

**Level 1: Ordered Systems (Autocratic / Compliant) and**

**Level 2: Organized Systems (Top-Down / Planned / Improvement)**

At Levels 1 and 2, health, well-being, and sustainability is largely focused on the physical, safety, and security needs of individuals and the organization. For the individual, basic health and well-being needs include: ensuring a good income, nutrition, physical activity, adequate sleep, psychological and physical safety, basic health, and the prevention of disease.

On an organizational basis, Level 1 and 2 systems focus on coordinating and aligning human resources to ensure they meet the goals of the organization. The health of the organization is generally focused on ensuring order and control, with a focus on external power and authority. These systems are generally not very comfortable with ambiguity and change; they work to maintain stability and align their resources to reach predetermined goals and outcomes.
The following is an excerpt from Figure 5 (p. 171) and shows patterns associated with Level 1 and 2 along with the supporting frameworks and theorists.

In the literature, there is support for the idea that Level 1 and 2 systems are ordered, organized and aligned with a tendency to be top-down, directive, and with the goal of ensuring compliance (Spencer, 2004). Leaders believe that they know what people need, and that they have the authority to ensure people’s work achieves organizational goals.

Systems at these levels are referred to as cybernetic systems (Morgan, 2006), single-loop learning systems (Argyris, 1977; Argyris, 1993; Argyris & Schön, 1978), tight systems (Eoyang, 2001), and mechanistic systems (Morgan, 2006). These systems tend to inform, consult, and placate (Arnstein, 1969) with major decisions being made by a small group of people at the top of an organization who have power and control over others. The focus of control is generally outside the individual (Block, 1987).
At Level 2, leaders at the top of the organization develop detailed plans and strategies while closely monitoring the outcomes. Predetermined goals and objectives of the organization are identified by a few formal leaders. Leaders talk about getting their people aligned with their strategy (Goleman, 2002).

The literature also indicates that at Level 1 and 2, systems tend to create competition. Individuals look after their own individual health and well-being at the expense of others, if necessary. Self-interest is the pursuit of safety, control, advancement, and approval. People feel driven to serve the organization first and put their own personal meaning and purpose second (Block, 1987). There is a focus on accountability (externally oriented) and use of rational, quantitative measurement and evidence.

At these levels, individuals are perceived as separate from the organization. Some leaders espouse a value of individual and family life; however, there are few policies or focuses on promoting a balance of healthy work and family life.

**Level 3: Social Systems (Collaborative / Adaptive)**

At Level 3, there is a focus on social and emotional development and creating healthy, authentic, caring relationships. Individuals work together to adapt to their environments by creating common and shared vision and values. People support each other through their learning, change, and growth processes. At this level, people are focused on self-esteem and belonging based on Maslow’s Hierarchy of Needs (1954). In Level 3 systems, the health of the organization and the individual begin to be understood as interrelated.

The following is an excerpt from Figure 5 (p. 171) showing patterns associated with Level 3 along with the supporting frameworks and theorists.
Systems at this level are beginning to become more open. Individuals and organizations begin to recognize they are interrelated (Beatson, 2007; Schlitz et al., 2010), not only with each other but with their environments, and they begin to learn how to be more adaptive. People begin to talk more openly about the importance of health, well-being, and sustainability of the individual and the organization. They also consider contexts beyond themselves such as family and community life.

At Level 3, systems are becoming more complex and begin to be more self-organizing, and adaptive, involving relationship-building. These include both top-down guiding functions and some more open and adaptive functions and qualities (Hargreaves & Fink, 2006). Level 3 systems are more connected and involve deeper sharing. At this level, people begin to recognize that ongoing cycles of loss, change, and letting go are part of a process of developing greater complexity, consciousness, growth, and change (Lesser 2005; Rohr, 2013; Viorst, 1986).

Here individuals want to be involved in meaningful decision-making and start to distribute and share power (Arnstein, 1969). They agree to share planning and decision-making responsibilities through diverse formal and informal structures. In schools, this involves developing planning and decision-making structures that allow teachers to influence decision-making in a meaningful manner (Capra, personal communication, 2011). Overall, individuals are becoming more empathic (Rifkin, 2009) and enjoy being involved in open, authentic relationships and teams (Katzenbach, 1998, 2000; Katzenbach & Smith, 2003).

People intentionally focus on building healthy relationships, collaboratives, communities of collaboration, and networks. They support each other in both their professional and personal relationships (Goleman, 2002). At Level 3, teachers and principals openly talk about how their supervisor actively pays attention to their health and well-being. Relationships are authentic, caring, and health promoting. Dynamic balance, resilience, renewal, and rejuvenation are all important in these ongoing dynamic processes (Capra, 2002; Kabat-Zinn, 1990; Reeves & Allison, 2009; Siegel, 2010). People are still listening and responding primarily to external power and authority but internal power is becoming more important (Spencer, 2004).
At level 3, leaders begin to think about ensuring a sense of coherence and meaning between their own individual values, purpose, and meaning in life and the meaning, purpose, goals, and values of the organization (Antonovsky, 1996; Frankl, 1959/2006). These leaders are beginning to become more aware of and develop their own sense of self and work in an effort to self-actualize (Maslow, 1954). They want to advance their capacity to develop and grow. Leaders enjoy working with others towards the shared goals of the organization and are beginning to encourage others to play an influential role in decision-making. Individuals are viewed as integral to the organization (Maynard & Mehrtens, 1996). Leaders pay more attention to the diverse needs of their colleagues while balancing the needs of the organization. In these systems, individuals are better able to address their health, well-being, and sustainability needs.

**Level 4: Learning Systems (Emergent / Curious / Generative)**

At Level 4, systems become more emergent, generative, and self-organizing. (Capra, 2002; Hargreaves & Fink, 2006; Olson & Eoyang, 2001; Wheatley, 2005; Zimmerman et al. 1998). Health, well-being, and sustainability are becoming more of an intentional focus with greater emphasis on promoting diversity, openness, deep learning, intellectual development, and diverse ways of knowing. Leaders recognize diverse worldviews, mental models, values, and approaches to life. People are much more comfortable questioning their own underlying values and worldviews and tapping into diverse forms of integrative thinking and knowing (Martin, 2009). Various theorists describe the qualities of Level 4: critical thinking, holistic systems thinking (Senge et al., 1990); contemplative thinking (Sloan, 2012); mindfulness (Sloan, 2011), Kabat-Zinn (1990); wisdom, tacit knowledge (Polanyi, 1967); and deep dialogue (Bohm, 1996).

The following is an excerpt from Figure 5 (p. 171) showing patterns associated with Level 4 along with the supporting frameworks and theorists.
Level 4 has a major focus on learning, growth, creativity, and tapping into diversity as people accept and often promote differences. Differences are no longer a threat to self-esteem but rather a way to synergize diverse strengths, gifts, and opportunities. There is a creative tension (Senge et al., 1990) between different ways of knowing (e.g., evidence-based, rational, scientific versus the inner wisdom, intuitive, life experience, tacit, and spiritual knowing) (Myss, 2004; Polanyi, 1967; Rohr, 2013). People work to differentiate themselves (Csikszentmihalyi, 1997; Kegan, 1982, 1994; Maslow, 1954). They want to be different and also want to be true to themselves as they create a stronger sense of self. At the same time, they are also willing to work collaboratively and grow with others. Kegan (1982, 1994) calls this level of consciousness the self-authoring mind and Maslow (1954) calls this kind of growth self-actualization.

Leaders in Level 4 systems recognize that they themselves can be differentiated while also integrated into the whole. Integration and differentiation begin to develop alongside each other, creating higher levels of complexity and consciousness (Csikszentmihalyi, 1997; Siegel, 2010). Level 4 systems involve learning how to be comfortable with ambiguity, diversity, asking difficult questions, questioning the status quo, and becoming more empowered to work together and grow (Bohm, 1996). People at this level have come to recognize that power is largely within themselves, and they initially move into a reliant and then into an alliance mindset (Spencer, 2004). There is a growing value placed on individuals and their unique contributions to the whole (Maynard & Mehrtens, 1996). People come to appreciate they are in mutual and reciprocal relationships which is the definition of interrelatedness used in this study.

At Level 4, there is a growing capacity for synergy and emergence (Capra, 2002) which creates higher levels of tension related to diversity. Diversity, disagreement, and differences create vibrant system environments. Creative tension is high and people thrive on different ideas, ways of learning and seeing the world, and different ways of knowing (Senge et al., 1990). Leaders at Level 4 are described as open, creative, divergent, innovative, and creating a space for everyone to thrive and grow (Somerville, 1992, 1999, 2006).

At this level, there is greater sharing of power and control (Arnstein, 1969). Principals and teachers in more highly distributed leadership and learning environments (Hargreaves & Fink, 2006) gain significant ability to address complex issues and have influence in negotiations and bargaining as well as participate in various district-level discussions. They influence
decisions about allocating resources, staffing, and significant decisions relation to the school and district environments.

At this level, there is some initial discussion about spiritual, ecological and global health, well-being, and sustainability. People begin to look beyond themselves but are still at the initial stages of this growth process. Some people are beginning to do more inner work (meditation, contemplation, reflective thinking, critical thinking, creative thinking, and spiritual development) (Dahl, 2010; Kabat-Zinn, 1990; Sable, 2010; Siegel, 2010, Sloan, 2011).

At Level 4, there is a developing recognition that intellectual development through rational thinking and quantitative measurement is not the only way of knowing. People come to appreciate other diverse ways of knowing including intuition (Schultz, 1998), life experience, wisdom, and tacit knowledge (Polanyi, 1967). They develop the capacity to tap into creative capacities of thinking, feeling, and being and they encourage collective capacities in this area. They begin to appreciate both the rational, scientific, analytical approach and the more intuitive, creative, open, synthetic systems approach (Capra, 2002; Jackson, 2003; Martin, 2009; McGilchrist, 2009; Pink, 2005; Senge et al., 1990; Schulz, 1998).

At Level 4, people feel more interrelated to each other and to the whole – they appreciate the ME and WE and have developed a higher level of social consciousness (Schlitz et al., 2010). They have a strong sense of integrity but are empathic and relate to the whole (Killinger, 2007; Rifkin, 2009). Empathy is an emergent property that begins to develop between Level 4 and 5. “The more mature our empathic consciousness, the more intimate and universal our participation with life and the deeper our sense of the layers of reality” (Rifkin, 2009, p. 165).

**Level 5: Living Systems (Integrative / Holistic / Complex)**

Level 5 systems develop an extensive appreciation that health and well-being involves a long-term sustainability approach and worldview that builds on all of our diverse perspectives and strengths. Level 5 systems reflect complexity, ambiguity, and continuous change. They also promote creativity, innovation, and emergence. Holistic in nature, they build on the synergy of the whole. People have come to fully appreciate diverse ways of knowing. This includes tacit knowledge, intuition, deeper wisdom, and life experience (Argyris & Schön, 1978; Martin, 2009; Polanyi, 1967; Senge, 1990; Sloan, 2011, Somerville, 2006).
The following is an excerpt from Figure 5 (p. 171) showing patterns associated with Level 5 along with the supporting frameworks and theorists.

**Supporting Frameworks and Theorists**
- Transcendence (Maslow, 1954)
- Complexity Consciousness (T. de Chardin, 1955)
- Service to Society, Humanity, Planet (Barrett, 2010)
- Alliance (Spencer, 2004)
- 5th Order: Self-Transforming Mind (Kegan, 1982, 1994)
- Assertive Distribution (Hargreaves & Fink, 2006)


At Level 5 systems recognize that health, well-being, and sustainability is about the deep, evolving, and transformational changes which create higher levels of complexity and consciousness, and higher levels of differentiation and integration (Csikszentmihalyi, 1997; Maslow, 1954; Pruyn, 2010; Siegel, 2010). They see that they need to come together in an integrated, holistic, and synergistic manner to care for the whole.

At Level 5 leadership focuses on the generative and transformational potential of the system. People want to work towards the purpose and potential of the system through double- and triple-loop learning (Argyris & Schön, 1978; Torbert, 2004). Leaders describe how they want to make a *difference in the world* and *be of service to the world* (Barrett, 2010). At the highest level, leaders are motivated to work in service of the greatest good and are motivated to work on behalf of future generations. They care for the whole (Block, 1987, 1993; Covey, Merrill Contu, & Merrill, 2002; Greenleaf, 2002; Kegan, 1982, 1994; Pruyn, 2010). Kegan (1982, 1994) calls this level of consciousness *the self-transforming mind* and Maslow (1954) calls this growth *self-transcendence*. “Maslow’s hierarchy of needs is another way of articulating
the process of self-development and the stages one goes through to develop a mature empathic sensitivity” (Rifkin, 2009, p. 411).

Those at Level 5 embrace ambiguity and *unknowingness* (Capra, 1996, 2002; Kabat-Zinn, 1990). They recognize the implications of systems within systems (Hancock, 1996, 2000, 2011; Capra, 1996, 2002); have a large and *inclusive vision* and are committed to the *common good* (Beatson, 2007); have high levels of *empathy* (Rifkin, 2009), and high levels of *compassion* (Myss, 2004; Ryes et al., 2012).

At Level 5 people work to develop their own inner consciousness through various practices and ongoing processes. Consciousness has been described as *spiritual consciousness, global consciousness, ecological consciousness, reflective consciousness* (Capra, 2002); *complexity-consciousness* (Teilhard de Chardin, 1955); and *social consciousness* (Schlitz et al., 2007). Rifkin calls this *empathic consciousness* and explains that “empathy is the means by which we transcend ourselves, by exploring our relationships and connections with the awe of being” (Rifkin, 2009, p. 169). “Empathy represents the deepest expression of awe, and understandably is regarded as the most spiritual of human qualities” (Rifkin, 2009, p. 170).

People at Level 5 view health, well-being, and sustainability as spiritual, ecological, and global in nature (Capra, personal communication, January 2013; Dahl, 2010, personal communication, October 2013; Davis & Cooke, 2007; Dooris, 2013; Hancock & Perkins, 1984; Hancock, 1993, 1996a, 1996b, 2000, 2011; Kickbusch 1989, 1990, 1996, 2003; Maller, Townsend, Pryor, Brown, & St. Leger, 2005; Stanley, 2013; VanLeeuwen, Waltner-Toews, Abernathy, & Smit, 1999). Some researchers in the health field view this level as integral to the healing process of both individuals and the whole society and planet. Many scientists and philosophers are beginning to discuss this fifth level of health and healing in their research. For example, Alastair Cunningham, Ph.D. in Medical Biophysics and Psychiatry at the University of Toronto, a senior scientist at the Ontario Cancer Institute and Officer of the Order of Canada, has developed his own framework from his extensive research outlining the levels or properties of restoring health of individuals.
In this study I chose not to bring forward a definition of *sustainability* to the participants in the interviews; rather, I wanted to see what emerged. In my data analysis I came to appreciate that just as there were very different levels of complexity and consciousness of health and well-being, there were also very diverse understandings and worldviews in relation to *sustainability*.

At each level on my Reflective Framework the participants described sustainability very differently. At Level 2 participants talked about sustainability in relation to how to use resources most effectively. They explained, for example, how the resources were limited and needed to be closely monitored and measured for efficiency and outcomes. Sustainability was viewed more from a *business mindset*. Participants reported feeling that each program was funded and evaluated in silos, and that sustainability was about getting the work done and reaching the objectives and goals as pre-determined. Participants reported that they were also viewed as resources, people with different expertise and strengths to be tapped into to achieve organizational goals. The health, well-being, and sustainability of individuals was not a big priority or focus.

At Level 3 sustainability was about helping yourself and others to maintain some sense of balance in life, supporting each other, collaborating, and caring. People felt that they could not sustain their own lives without the support and care of others. People brought diverse strengths together to achieve the shared goals. Such an environment helped people get through crises and stress; to buffer difficult environments; and to build positive relationships of care and empathy with each other. The work still needed to be done, and it was largely prescriptive in nature but there was more openness, sharing, and some emergence.

At Level 4 sustainability was reported to be more about appreciating the bigger picture. Participants were asking questions such as *what is success* and *what is the purpose of education in society?* Participants reported that our education system cannot be sustainable if we are only teaching children and youth to be materialistic, egotistical, selfish, and focusing only on their own marks. They wanted to see a much more holistic approach to education and life that was healthier and more sustainable. They reported how health and sustainability were intertwined closely and could not be separated out.

Between Level 4 and Level 5 participants recognized that *for a community or system to be healthy it must be sustainable* (Hancock, 2000, 2011). Participants explained how important it
was to fully integrate and embed an appreciation of our greater spiritual, ecological, and global health, well-being, and sustainability. One participant described this as developing a growing appreciation that we as human beings cannot be healthy or sustainable if the planet is not healthy and sustainable. Other participants talked about the sacredness of life and how each individual contributes their uniqueness to the whole world. At Level 5 the ecological is spiritual and therefore we need to appreciate the interrelated nature of life (Capra, personal communication, September 2011).

As reflected in the data, increasing complexity and consciousness of health, well-being, and sustainability are intertwined and have different appreciations and understandings at each of the five levels, as discussed in this thesis.

Application of the Reflective Framework

When I developed and articulated the Reflective Framework, I used it to help me understand the major system pattern of complexity and consciousness within the context of each of the three system environments I chose to explore: leadership, a culture of continuous learning, and interrelatedness of work and life. In the sections that follow I outline the three sub-patterns that emerged from the process of analyzing each system environment using an ecological, holistic systems approach. In each case, I provide the specific ideas for the literature that describe the particular sub-patterns at each level of the framework in conjunction with the data from the interviews. I also explore the major system pattern as it manifests in the synergy point: meaning, purpose, and consciousness.

Understanding the Leadership Sub-Pattern Through My Reflective Framework

A major goal of this research was to find out if there was a particular system environment that was an enabler with respect to promoting optimal health, well-being, continuous learning, and sustainability for individuals and the school district as a whole. In the interviews, participants were asked if they thought that specific forms of leadership had more potential to positively influence their health, well-being, continuous learning, and sustainability and that of the school district.
The majority of the participants agreed that there were certain forms of leadership that were better able to buffer, protect, and promote their optimal health, well-being, continuous learning, and sustainability. Permission was granted by Professor Hargreaves to use his scale during the participant interviews (personal communication, November 2008) as a means of estimating the level of leadership distribution in each school and the system generally.

Hargreaves’ and Fink’s (2006) *Stepping Up the Ladder of Leadership Distribution* has seven patterns/forms. They are: autocracy, traditional delegation, progressive delegation, guided delegation, emergent distribution, assertive distribution, and anarchy.

To understand the leadership sub-patterns, I applied my Reflective Framework to the data. My Framework revealed five general levels of leadership ranging from top-down/planned/improvement patterns, to collaborative/adaptive patterns, to emergent/curious/generative patterns, to integrative/holistic/complex patterns of leadership.

The leadership levels of my Reflective Framework build on many other system theorists, thinkers and researchers including Bateson’s (1972) framework of levels of learning. His description of recursive looping and nested hierarchies is particularly relevant to my thinking. It is interesting to note that the teachers interviewed in each school and their principal all identified similar levels of distributed leadership for themselves and their schools (progressive delegation, guided distribution, and emergent distribution) using Hargreaves and Fink’s *Ladder of Leadership Distribution* (2006).

Because the leadership sub-pattern was seen as the major enabler of health, well-being, and sustainability in this system, there is extensive data to report in connection with the patterns. As a result, this section begins with the communication of the leadership-related details of the interviews. I then proceed to an overall explanation of the leadership sub-pattern at each level of complexity and consciousness. In my explanation of the other two sub-patterns a culture of continuous learning and interrelatedness of work and life, I proceed directly to the overall explanation of the sub-patterns without the specific details of the feedback.

Appendix G is an important foundational framework in this thesis: *Stepping Up the Scale of Leadership Distribution* (Hargreaves and Fink 2006).
Clustering System and School Leaders

Based on the results of this study, the healthier and more sustainable patterns of leadership range from collaborative/adaptive (Level 3) to emergent/curious/generative (Level 4) to integrative/holistic/complex systems (Level 5). In the literature there is general agreement that Level 1 and 2 Leadership, which provides a top-down/planned/improvement leadership pattern, is integral to systems development and provides many foundational aspects to developing a healthy sustainable system, but the system (individuals and the organization) also needs to develop the qualities and capacities of Levels 3, 4 and 5 to continue to become healthier and more sustainable. A few leaders in this study encouraged higher levels of self-organization, creativity, curiosity, risk-taking, and innovation. Based on the data, I identified leadership patterns that the participants reported influenced their health, well-being, and sustainability, and that of the district. The schools are presented using the levels of my Reflective Framework to organize the data from participants in each school.

I was able to cluster the participants and their schools in the study at approximate levels ranging from Level 2 to 5. I was also able to cluster the district leaders participating in this study at approximate levels. I have clustered and described Levels 1 and 2 together in this thesis. These are both fairly closed systems and exhibit similar characteristics. There were no schools or participants at Level 1 that participated in this study.

A few district leaders exhibited a Level 2 focus by encouraging the system to become more top-down, planned and improvement oriented. There were more district leaders at Level 3 who were taking a collaborative/adaptive approach to complex systems change in relation to health, well-being, and sustainability. A few district leaders were comfortable with and encouraged individuals and the organization to function at Levels 4 and 5 through greater ambiguity, creativity, reflection, and questioning of the status quo. They also encouraged the use of double-loop learning, deep dialogue, and increased sharing of power and control.
Sub-Patterns of Leadership: Elementary Schools Panel / Clustering

Table 1 shows the clustering for the five participating elementary schools.

**Table 1**

**Sub-Patterns of Leadership: Elementary Schools Panel / Clustering**

<table>
<thead>
<tr>
<th>LEVEL 1 Ordered Systems</th>
<th>LEVEL 2 Organized Systems</th>
<th>LEVEL 3 Social Systems</th>
<th>LEVEL 4 Learning Systems</th>
<th>LEVEL 5 Living Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autocratic / Compliant Leadership Pattern</td>
<td>Top-Down / Planned / Improvement Leadership Pattern</td>
<td>Collaborative / Adaptive Leadership Pattern</td>
<td>Emergent / Curious / Generative Leadership Pattern</td>
<td>Integrative / Holistic / Complex Leadership Pattern</td>
</tr>
<tr>
<td>Ordered</td>
<td>Organized</td>
<td>Becoming Self-Organizing</td>
<td>More Self-Organizing</td>
<td>Most Self-Organizing</td>
</tr>
<tr>
<td>School F: Collaborative / Adaptive with some Emergent / Curious / Generative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School G: Emergent / Curious / Generative with some Integrative / Holistic / Complex Systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School H: Top-Down / Planned / Improvement with some Collaborative / Adaptive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School I: Collaborative / Adaptive with significant Emergent / Curious / Generative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School J: Collaborative / Adaptive with significant Emergent / Curious / Generative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following is a short description and highlights of each elementary school.

**School F: Collaborative / adaptive with some emergent / curious / generative patterns of leadership**

The principal in School F identified significant concerns about there being little opportunity to be actively engaged in meaningful district level decision-making about union negotiations, operational issues, and other important decision-making related to his work and life calling. This principal supported teachers to keep growing and expanding their consciousness and complexity and to move from collaborative/adaptive to emergent/curious/generative patterns of leadership. The principal also reported that his panel and the larger system were restricting him by maintaining a tight, planned improvement approach to sustainable change.

Based on the findings reported by the teachers in this school, this principal proactively addressed their unique needs, provided support and encouragement, and promoted high levels of diversity, creativity, and openness. He also encouraged inquiry, asking deep questions, and learning. This leader understood complex and sustainable systems and had significant education and experience in this area. He provided many insights into systems that contributed to the underlying principles identified in this study, including the importance of voice, openness, paying attention to equilibrium and disequilibrium, flow, resilience, renewal, social/emotional relationships, and balance.

The principal was particularly insightful around creating double-loop learning environments necessary for innovation and risk taking. While this principal was able to buffer, protect and promote the health, well-being, and sustainability of teachers, the principal reported that his own health and well-being was not buffered or protected as he felt he had little input, engagement, and opportunity for double-loop learning and feedback into the larger elementary system. This principal also had many insights into how the system could improve by paying more attention to and promoting professional and organizational resilience and renewal.

**School G: Emergent / curious / generative with some emerging integrative / holistic/ complex leadership patterns of leadership**

The principal in School G identified significant frustration and disappointment as there was very little opportunity for him to express his own passion, wholeness, creativity, curiosity
and to address the unique needs of students through the arts, music, and diverse ways of knowing. That said, this principal and the teachers in this school created their own environment of creativity, openness, emergence, and flexibility. They all worked synergistically to address the unique and diverse strengths and concerns of students and tap into all of their diverse capacities.

Sharing of power, control, and empowerment were also key aspects of the principal and teacher leadership in this school. This principal protected and buffered staff and promoted their well-being and sustainability. He also reported feeling that his overall health and well-being and that of some of his younger colleagues were negatively affected because of a broader de-valuing of the diverse strengths, creativity, and openness that he believed were so important for him as a professional and also for the overall system.

Many teachers in this school were positive about the collective learning environment and also identified many new ideas for creating opportunities and forums for increased dialogue, feedback, and communication with the senior leadership in the organization and out into the community.

**School H: Top-down / planned / improvement with some collaborative / adaptive patterns of leadership**

The principal in School H was described by the teachers in this school as using largely a top-down/planned/improvement leadership pattern with some collaborative/adaptive leadership. The principal was fairly new in the position and this may have played a role in the leadership pattern that was adopted at this time. The teachers talked about the importance of relationships, communities, and balance.

One teacher reported feeling frustrated that the school district was becoming very top-down and did not appreciate the professional capacity of its teachers. This teacher described experiences with top-down curriculum instruction and the lack of input of staff into the overall goals, direction, and values of the district. The teacher provided an example of the Values Statement that he felt was downloaded on staff with no opportunity for input from them. This teacher explained that, as far as he knew, no other teachers were involved in any processes to discuss their values and those listed in this district document.
Two teachers reported that their unique gifts were not being fully appreciated as there was too much focus on outcomes and accountability.

**School I: Collaborative / adaptive with significant emergent / curious / generative leadership patterns of leadership**

The principal of School I was very open and encouraged a diverse leadership team in the school. He highlighted how important it was to ensure diversity continues in many forms in this school district. He identified his concern that principals may lose their ability to hire their own staff and may not be able to ensure a diverse team, which he believed was essential to the health, well-being, and sustainability of the organization. He talked about how the Director had always encouraged and promoted diversity of leadership at various levels of the system, and he felt it was very important that this approach continue.

Diversity was a major focus of discussion in the interviews in this school. The principal and teachers worked intentionally to build their own diverse team. Many of them talked about diversity and how important it was to their overall health, well-being, and ability to achieve their goals. The principal emphasized how creativity and empathy were important, as well as using data and research to make informed decisions. He believed that a balanced approach to life and work was essential to the health, well-being, and sustainability of individuals and organizations. He was concerned that there was some evidence that this may be changing in this organization and was trying to continue to address diversity in his school environment.

The teachers provided many examples of how diversity could continue to be developed throughout this system. They also talked about the importance of developing greater global and ecological awareness and citizenship.

**School J: Collaborative / adaptive with significant emergent / curious / generative patterns of leadership**

The principal of School J reported being collaborative but that he was also very open to emergence and curiosity. He reported using intuition and creative approaches in decision-making and in developing diverse teams. This principal encouraged teachers to learn and grow in diverse ways. He was very empathetic with his staff and valued their different strengths and capacities. He found the very directive approach in the elementary panel, such as using binders and top-
down learning approaches, to be constrictive. This principal said the staff “just rolled their eyes” and he encouraged them to use their professional judgment and make decisions for themselves on how best to meet the system plan and the various aspects of data collection and measurement. He wanted to see a much more professional approach and greater input into how all of the resources and directions were to be implemented. He believed in the capacity and potential of his teachers and tried to tap into and support their growth in many directions. He wanted to see much more flexibility in terms of formal and informal leadership, organizational structures, as well as opportunities for all leaders to work part-time, have time off with family, and be encouraged to grow and be curious and creative. This principal encouraged the district to promote diversity in team formation and to appreciate both qualitative and quantitative measurement.

Teachers in this school were highly motivated and passionate about learning. They described how they tapped into flow, openness, creativity, and the culture of continuous learning. They talked about the community of learning created in their school and how everyone was appreciated for their diverse talents and gifts. This principal had many new ideas about how the system could become more flexible and address generational issues while building on the strengths of leaders at all levels and stages of life. He wanted to build on the strengths of younger more mature teachers who wanted to work part-time and still make meaningful contributions.

The teachers provided extensive insights into different ways the school district and the elementary panel could support them in their overall growth and development. They spoke of developing greater flexibility, and paying attention to dynamic balance, renewal, and a more flexible work organization.

*Elementary superintendent team sub-patterns of leadership*

The two superintendents in the elementary system that were influential in these five schools were identified as having collaborative/adaptive to emergent/curious/generative leadership patterns. They were nested under a larger elementary system that could be described as demonstrating top down/planned/improvement to collaborative/adaptive leadership patterns. Many teachers and principals in the elementary system described their system overall as top-down, planned, improvement focused.
Sub-Patterns of Leadership: Individuals from Secondary Schools / Panel Clustering

In examining the patterns in Table 2, there were five schools from the secondary panel that participated in the interviews. There are a number of diverse leadership patterns that are also associated with diverse values, underlying assumptions, and worldviews. These patterns are directly related to the data from the interviews in relation to how leadership influenced people’s individual health, well-being, and sustainability and that of schools and the larger organization.

Table 2
Sub-Patterns of Leadership: Secondary Schools Panel / Clustering

<table>
<thead>
<tr>
<th>LEVEL 1</th>
<th>LEVEL 2</th>
<th>LEVEL 3</th>
<th>LEVEL 4</th>
<th>LEVEL 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordered</td>
<td>Organized</td>
<td>Social Systems</td>
<td>Learning Systems</td>
<td>Living Systems</td>
</tr>
<tr>
<td>Autocratic / Compliant Leadership Pattern</td>
<td>Top-Down / Planned / Improvement Leadership Pattern</td>
<td>Collaborative / Adaptive Leadership Pattern</td>
<td>Emergent / Curious / Generative Leadership Pattern</td>
<td>Integrative / Holistic / Complex Leadership Pattern</td>
</tr>
<tr>
<td>Ordered</td>
<td>Organized</td>
<td>Becoming Self-Organizing</td>
<td>More Self-Organizing</td>
<td>Most Self-Organizing</td>
</tr>
<tr>
<td>School A: Top-Down / Planned / Improvement with some Collaborative / Adaptive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School B: Collaborative / Adaptive with some Emergent / Curious / Generative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School C: Emergent / Curious and the beginning of some Integrative / Holistic / Complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School D: Collaborative / Adaptive with some Emergent / Curious / Generative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School E: Emergent / Curious and the beginning of some Integrative / Holistic / Complex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
School A: Top-down / planned leadership with some collaborative / adaptive patterns of leadership

The principal in School A focused on the overall top-down/planned, improvement change initiatives of the system and did provide some collaborative/adaptive focus with her staff (as reported by the teachers interviewed). This principal explained that certain people had been “tapped on the shoulder” to take on key initiatives. This principal felt that this was important as the heavy workload of a secondary principal was just too much.

A few teachers reported feeling very frustrated and disengaged. They reported that their concerns were not being listened to by the principal. The principal was reported to be involved in many initiatives and very busy outside of the school environment. Two of the participants said this principal was not very receptive to their concerns. One teacher reported that the principal was trying to address some of the major issues in the school but there did not seem to be an engaged community inside the school that was able to be collaborative and work well together.

A few teachers explained that the school environment was very competitive and departments did not work well together. They also said that the department heads did not help and support new teachers. They reported that the principal knew about this but was unable or unwilling to address these issues and the lack of collaboration in this school. Some of these challenges may have been related to the history of the school, the broader community, and other contextual issues in this community.

School B: Collaborative / adaptive with some emergent / curious / generative leadership patterns of leadership

The principal of School B explained that she was very collaborative in her leadership pattern and approach but also worked hard to create a space for emergence, creativity, and new ideas that originated from the teachers. She gave examples of how emergence occurred in this school and how the teachers took on many creative roles and came up with many curious and new ways to do things. They had created new, self-organized committees, structures, and unique networks along with ways of connecting to share information, knowledge, and learn.

The teachers in this school were collaborative/adaptive and emergent/curious/generative in their leadership patterns. The leaders that used emergent/curious/generative patterns were
given space to develop and grow and did not feel restrained by the leadership environment. One of the leaders in this school could be considered to be moving into the integrative/holistic/complex pattern of leadership and talked a lot about spiritual leadership and selflessness, and how to encourage deep leadership and learning that is not egotistical, superficial, or about trying to look good.

The teachers in this school regarded their principal highly and reported how she paid significant attention to the social/emotional needs of her staff and looked after their well-being. She gave them time off to look after their personal and family needs and was always there for them during difficult and emotional times.

There was a very strong community of collaboration in this school and there were some teachers who also had high levels of curiosity and creativity, worked on international assignments in the summer, and were interested and involved in developing more of a focus on global, ecological, and spiritual well-being.

School C: Emergent / curious / generative and beginning to move into integrative / holistic / complex patterns of leadership

The principal in School C exhibited very emergent/curious/generative patterns of leadership, drawing on both distributed and shared leadership approaches. He created a very open space for all leaders to flourish and grow. The teachers described this environment as extremely health promoting and sustainable. They felt they could be themselves and draw on diverse strengths. They reported feeling encouraged to contribute and be part of a larger community. They were very open and trusting. The environment encouraged everyone to be involved in decision-making and develop to their highest potential.

The principal talked about the importance of listening, being open, creating an open door policy, and valuing diverse ways of knowing, particularly wisdom, and a very balanced approach to work and life.

The principal and teachers in this school also began to talk about tapping into diverse research, speakers, community knowledge, and the importance of restorative justice, equity, fairness, and social connectedness. They called it the “human factor” but also linked it to deeper qualities of the human spirit, openness, forgiveness, and trust.
The teachers expressed deep respect for each other and their principal and also worked closely with the community and parents. They also reported that they felt respected because they were not forced to take on additional responsibilities but had appropriate choice and support.

This school environment had a healthy balance of design and emergence, thus allowing the synergy of the whole to be released. The teachers talked about flow, voice, caring, collaboration and also felt a deep sense of responsibility for the whole.

**School D: Collaborative / adaptive with some emergent / curious / generative patterns of leadership**

The principal in School D was highly regarded by her teachers as she created an environment of collaboration and caring and paid attention to the social/emotional needs of her staff. This principal was extremely balanced and worked hard to ensure a similar environment for all. She encouraged her staff to grow but found it difficult to give them as much time as they needed to spend outside the school. She felt she needed them to be in the classroom where there were significant issues, and she did not feel she had the resources to let them spend so much time learning in networks and external activities.

All of the staff felt very supported and nurtured in this environment. One teacher explained that she was a leader in this school and took on significant responsibility. She was looking forward to sharing her knowledge and community capacity building skills in the school and that she was building strong connections and networks outside the school with her colleagues who had similar responsibilities.

This school environment was in the early stages of moving towards becoming a more emergent/curious/generative learning organization. Many staff members were very open about how they thought this school could become more energized and were building the capacity to move into more emergent/curious/generative forms of leadership.

**School E: Emergent / curious / generative / with some beginnings of integrated / holistic / complex patterns of leadership**

The principal in School E was extremely open and creative, allowing people to work on diverse projects, initiatives, and learning opportunities. The principal was recognized for his
open and diverse approach to learning and change. He encouraged staff to work on ecological and international education, international exchange programs, innovative technology use, and other unique programs and initiatives.

Staff in this school environment described feeling extremely passionate about their work, their own leadership, and the learning environment. They were all developing their appreciation of diversity, intellectual capacity, and high levels of differentiation. They were also working together towards common goals and inspiring values and initiatives.

There was also significant discussion in the interviews in this school about the importance of spiritual, ecological, and global development and how this was integral to health, well-being, and sustainability of individuals, organizations, our society, and the planet.

The school leadership overall was passionate, self-motivated, highly creative and innovative and asked deep questions using double-loop learning — questions about the status quo and how to create a healthier, more sustainable system. Many participants offered to be involved in ongoing initiatives in this area. This school environment was innovative and had built strong connections with global leaders, business leaders, and university researchers. They were working on many innovative ways of learning and leading.

**Secondary superintendent team sub-patterns of leadership**

The principals in the secondary system were nested under superintendents who utilized largely collaborative/adaptive leadership patterns with some emergent/curious/generative leadership patterns. The overall secondary system was open and was mainly focusing on creating collaborative/adaptive to emergent/curious/generative leadership patterns with minimal emergence of spiritual, ecological awareness of health, well-being, and sustainability.

**District Leadership Team Clustering**

In this school system, there was a diverse team of district leaders who exhibited all four patterns of leadership ranging from top-down/planned/improvement leadership to collaborative/adaptive and emergent/curious/generative leadership patterns. There were also some integrative/holistic/complex leadership patterns beginning to emerge with a focus on ecological, global and spiritual health, well-being, and sustainability.
The majority of the district leaders interviewed displayed collaborative/adaptive to emergent/curious/generative leadership patterns with a small number drawing on top-down/planned/improvement leadership patterns. The top-down/planned/improvement leadership patterns were influencing the organization, attempting to shift, pull and constrain the whole organization towards a more planned, aligned, and standardized accountability pattern of leadership. This was identified by a significant number of participants.

Many of the principals and teachers who were trying to create more emergent/curious/generative leadership patterns were finding it difficult to continue to grow and flourish in top-down/planned/improvement leadership environments. This was becoming particularly evident in the elementary panel where the participants reported that the values of the district were shifting away from what they had originally agreed to in the district mission, vision, and values statements: being open to creativity, innovation, risk taking, and other diverse ways of knowing. Many of the participants reported that the school district was moving to more of a top-down/planned/improvement framework where the outcomes were predetermined and measured, and performance and student success was highly valued. The senior leadership team was trying to continue to be more open, dynamic, and flexible, and to allow the more emergent creative thinkers to flourish, but some participants reported that top-down planned structures were beginning to affect their enthusiasm. Table 3, p. 196 provides the data for the district leaders participating in the study.

Some senior leadership team members interviewed displayed a more open, emergent/curious/generative pattern of leadership. This pattern was slowly being influenced by the top-down/planned/improvement driven system and frameworks. These values were being embedded into the leadership development process, the accountability processes and outcomes, and the data collection methods. While there were some advantages to these top-down/planned/improvement systems in terms of standardization, ensuring a way to measure and account for basic outcomes and measurement, this pattern was fairly tight and tended to discourage more open emergent/curious/generative patterns that the literature shows are important in developing continuous learning, innovation, and long term sustainability of the school district. Participants also reported that this top-down/planned/improvement leadership pattern did not promote individual health, well-being, and sustainability.
**Table 3**

*Sub-Patterns of Leadership: Panel and Senior Leadership Team Clustering*

<table>
<thead>
<tr>
<th>LEVEL 1 Ordered Systems</th>
<th>LEVEL 2 Organized Systems</th>
<th>LEVEL 3 Social Systems</th>
<th>LEVEL 4 Learning Systems</th>
<th>LEVEL 5 Living Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autocratic / Compliant Leadership Pattern</td>
<td>Top-Down / Planned / Improvement Leadership Pattern</td>
<td>Collaborative / Adaptive Leadership Pattern</td>
<td>Emergent / Curious / Generative Leadership Pattern</td>
<td>Integrative / Holistic / Complex Leadership Pattern</td>
</tr>
<tr>
<td>Ordered</td>
<td>Organized</td>
<td>Becoming Self-Organizing</td>
<td>More Self-Organizing</td>
<td>Most Self-Organizing</td>
</tr>
<tr>
<td><strong>ELEMENTARY SYSTEM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SECONDARY SYSTEM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 District Leaders</td>
<td>8 District Leaders</td>
<td>6 District Leaders</td>
<td>1 District Leader</td>
<td></td>
</tr>
</tbody>
</table>

**Overview of the Leadership Sub-Patterns in the Data**

This study found that leadership is the major enabler of the development of complexity and consciousness in relation to health, well-being, and sustainability.

Findings in the literature indicate that since leadership is the major enabler of the ongoing development of complexity and consciousness in relation to health, well-being, and sustainability, it is critical that the formal leadership in a highly diverse group of leaders “come from the most highly complex system available in the group” so that the group is operating at as high a level as possible (Beck & Cowan, 1996, p. 126). It is preferred that the leadership in open systems be approximately one level beyond their colleagues in order to support and promote growth and development. “If the leadership is too far ahead…it will destabilize and overwhelm the group” (Beck & Cowan, 1996, p. 126).
Rohr (2013) states:

You can only see and understand the earlier stages from the wider perspective of the later stages. This is why mature societies were meant to be led by elders, seniors. (p. 9)

From your own level of development, you can only stretch yourself to comprehend people just a bit beyond yourself. Some theorists say you cannot stretch more than one step above your own level of consciousness. (p. 10)

One of the most striking patterns in this school district is that the leadership at the top of this organization, the Director and some of his senior leadership team, were promoting diverse approaches and philosophies of leadership. These diverse approaches and philosophies created very different patterns of leadership throughout the system. In this school district, the formal leader of the senior leadership team was accepting of Level 2 to 5 leadership patterns and promoting Level 3 to 4 leadership patterns.

The elementary panel leadership promoted Level 2 to 3 leadership patterns while the secondary panel leadership promoted Levels 3 to 4 leadership patterns. The elementary system was considered to be more aligned, tight, and constrained; the secondary system was considered to be more open and less constrained. This was confirmed later in the research by several leaders.

At both the school and district levels, patterns of leadership ranged from Levels 2 to 5 with the majority between Levels 3 and 4. However, there were differences in the span of influence. At the school level, a principal influences 30 to 150 people depending on school size. At the district level, a leader has the potential to influence thousands of other people.

Participants in this study that reported finding it most difficult to continue to grow and be healthy were leading at Levels 3, 4 and even 5 yet they were nested under Levels 2 to 3 leadership patterns. These participants reported the highest levels of disconnect, distress, frustration, and feelings of dis-ease.
**Levels 1 and 2 Leadership Sub-Patterns**

Key informants indicated that Level 1 and 2 systems promote compliance and are not considered to be as health promoting or sustainable. Level 1 and 2 systems are important because they provide a sense of stability, safety, predictability, and order. This can be termed a designed, stable, ordered, or tight system (Olson & Eoyang, 2001; Maslow, 1954).

Level 1 and 2 leadership patterns can be viewed as grounding leadership that supports basic needs, procedures, and practices. These leadership patterns can be helpful in key areas where standardization is required; in ensuring common practices are developed and used; in ensuring equal access to resources; and in developing agreements and directions. Sometimes this level of leadership is required as organizations get comfortable with major shifts in direction, negotiate new union agreements, develop new human resource policies, and position broad planning documents and strategies. This pattern is also important in key areas of a system that require strong legal, administrative, safety, and enforcement; when solid structures and policies need to be set in place; and when a new program or initiative is being developed (Olson & Eoyang, 2001; Maslow, 1954).

Level 1 and 2 leadership patterns are largely based on a closed system design approach and use a traditional model and approach to change. This has been described as a machine metaphor (Morgan, 1986/2006) and a traditional model of organizational change (Olson & Eoyang, 2001) with organized, predictable, procedural, and controlled qualities (Holladay & Quade, 2008).

Tightly designed systems tolerate less diversity, creativity, openness, flow of power, control, and access to resources. They do this through formal and informal reward systems, not paying attention to or promoting diversity and diverse voices, and by encouraging people to not question and delve deeply into reflective inquiry and difficult dialogue (Olson & Eoyang, 2001). Level 2 leadership system patterns encourage stability, and avoid opening up to deep questioning that might lead to rethinking deeper issues, values, and directions. Goleman (2002) calls this level of leadership “the commanding style in action” (p. 76). Level 1 and 2 leaders seek tight control and monitor activities.
While there were no Level 1 leadership patterns identified in the study, there were a small number of traditional (Level 2) leaders identified. In schools and areas of the system where the leadership could be described as Level 2, participants reported less commitment, collaboration, and connection. They also described a lack of appreciation for diversity and capacity to tap into diverse ideas in the system. They reported feeling isolated, pessimistic, and a lack of deep meaning, purpose, and passion with respect to their work.

Teachers and principals in these contexts expressed a desire for a more collaborative and shared sense of meaning, purpose, and vision, but the leadership pattern was not enabling of this kind of growth. Teachers reported that while they continued to grow in their personal lives, they were not able to do the same in their work environment.

Accountability frameworks are characteristic of a Level 2 leadership pattern. Externally imposed accountability frameworks were reported to be very stress-inducing and thus not health promoting or sustainable in the long term. “Data has totally taken priority. The irony…is that the system is creating its own stressors. And then they have to come up with another program or another initiative to fix that problem that they have created” (DL 13, District Leader).

Participants recognized the importance of being accountable to the public but they wanted to be more involved in developing the frameworks, identifying indicators, and relevant data used in this process. They said that being more actively engaged in this process would make it much more meaningful and relevant to them in their work. They wanted to see a measurement process and framework that allowed for a much broader appreciation of the whole student and whole teacher. Elementary participants (principals and teachers) in particular reported wanting to be involved in the ongoing development and review of the accountability framework process and have input into various aspects of this process of development.

**Level 3 Leadership Sub-Patterns**

In the research and my Reflective Framework, Level 3 leaders are coming to recognize that their own inner power and inner thinking processes help them to make meaningful decisions and contribute to the whole. There is a major focus on developing healthy, trusting, social/emotional relationships and learning how to share leadership in a much more collaborative and distributed manner (Hargreaves & Fink, 2006). Leaders are becoming more conscious that
systems, both individuals and collectives, are capable of becoming more adaptive and self-organizing and require much less top-down direction (Capra, 2002). This is particularly important in an environment in which staff members are highly educated professionals.

As people try to move from aligned top-down/planned/improvement patterns at Level 2 to collaborative/adaptive patterns at Level 3, they come to recognize that guiding frameworks can provide general parameters but do not need to be as detailed as they are in Level 2 leadership patterns (Olson & Eoyang, 2001; Hargreaves & Fink, 2006). Leaders at Level 3 come to recognize that guiding frameworks are helpful when they are open to change, and flexible and responsive to the needs of the internal and external community. At this level, leaders use frameworks to guide change but do not let them reduce their openness to new ideas. People at this level are beginning to take more control of their lives and work together to create and co-create new pathways to reach shared goals. They also want to be more involved in determining the shared meaning and purpose of their work. This is what Hargreaves and Fink (2006) describe as guided distributed leadership.

Level 3 leadership patterns allow some emergence to occur but tend to be fairly guided in nature. People at Level 3 are in the early stages of learning how to let go of power and control, to develop higher levels of trust in themselves and others, and to become more comfortable building healthy, committed, trusting, sustainable relationships (Albrecht, 2006; Goleman, 2002; Sanders & Schyns, 2006; Spencer, 2004).

In this school district, people reported feeling buffered and protected by their supervisors at Level 3. Leithwood (2001) explains that “effective leadership will always include, for example, buffering many teachers from their conscientious tendency to feel they must respond comprehensively to demands for policy implementation from governments” (p. 288).

The principals and district leaders tried to ensure people were well cared for, that they were supported, and that their individual needs were being addressed (A 1, Secondary Principal; F 1 & G 1, Elementary Principals).

The Level 3 leaders in this study were attuned to the social/emotional needs of their staff and colleagues. There was a growing level of empathy as leaders throughout the organization tuned into the wide range of emotions and people felt listened to. Many of these leaders created a space for listening, being open, and transparent (F 1 & G 1, Elementary Principals; B 1, C1 &
D 1, Secondary Principals). In these environments people talked openly about their concerns. *Trust was reported to be high in these environments.* There were also fairly high levels of openness, empathy, trust, authenticity, and vulnerability occurring at Level 3. People felt safe and were able to be themselves. They felt cared for and were able to talk openly.

**Level 4 Leadership Sub-Patterns**

Level 4 leadership patterns involve intellectual development, experiential learning, and wisdom. There is a growing acceptance of more diverse ways of knowing. Leaders are beginning to appreciate that leadership and learning are not just intellectual processes, but also involve life experience, wisdom, tacit, indigenous and intuitive knowledge (J. Miller, 2006; Polanyi, 1967; Schultz, 1998).

This leadership pattern involves becoming more open to self-organizing and emergent patterns of distributed leadership. Level 4 leadership is enabling and empowering. It encourages people at all levels to take ownership of their own inner power and control; to develop their inner strengths; to be open and question things; to be honest and authentic; to bring forward their deep issues and concerns; and to find innovative and flexible ways to address complex problems in their school environments (Spencer, 2004; Wallerstein, 2006). Leaders at Level 4 have high expectations of themselves and others, and encourage high levels of collaboration, commitment, and responsibility.

There is also a higher level of generativity at Level 4 and increasing differentiation – people are encouraged to have different opinions, ideas, and worldviews. The people in these leadership environments thrive on differences (Csikszentmihalyi, 1997; Siegel, 2010). Level 4 leadership was also highly correlated to Level 4 culture of continuous learning and interrelatedness of work and life.

While there was some buffering occurring in the system in Level 4 leadership, principals and district leaders were less focused on rules, policies, and detailed plans. They were beginning to feel confident questioning restrictive structures and processes. They were also trying to find new ways to work around obstacles and promote continuous and ongoing growth and development, adaptation, and generativity. At Level 4 one union was also working more collaboratively with leadership to develop innovative ways to tap into resources and to ensure the
health and well-being of their employees and continue to work towards the goals of the organization. This was particularly evident in the comments from the participants from the teachers’ federation who reported developing productive working relationships with district leaders and trying to find innovative solutions to ongoing challenges.

The data indicates that there was a major tension related to the different worldviews, paradigms, and ways of knowing at Level 4. Jackson (2003) explains that “managers get locked into particular, limited ways of seeing the world and this clearly affects the way they try to change it (p. xx)”. For example, there was tension between a focus on quantitative measurement and standardization and at the same time a focus on more open, emergent developmental processes of continuous learning, growth, and creativity. These tensions are discussed in greater detail later in the section on Tensions and Paradoxes.

The Level 4 school leaders participating in the study were becoming highly conscious of the two very different worldviews and the shifts that were occurring in this system and the broader environment – the Ministry of Education and the political environment. They wanted to have an open and honest discussion about these diverse worldviews and develop a more balanced and holistic approach to education. Jackson explains that “improving organizational performance, in its very broadest sense, requires an ability to look at organizations from all these perspectives (based on different paradigms and metaphors) (p. xxii)”. Many of the participants were of the opinion that the education system continuously moved back and forth between worldviews. The shifts were significantly influenced by environmental forces including economic and social changes in partnership with the political party in power and its ideology. These participants did not believe that the move back to a top-down accountability structure was healthy and sustainable for society, the education system as a whole, or for children and youth.

Level 5 Leadership Sub-Patterns

Level 5 leadership patterns in schools are health promoting, integrative/holistic/complex patterns. This leadership pattern integrates the complexity and consciousness of all of the previous levels – bringing together the physical, social/emotional, and intellectual/learning development – and it begins to address the global, spiritual, and ecological underpinnings of health, well-being, and sustainability. This level also reflects the tensions and dichotomies of living systems (Capra, 2002; Dooris, 2006; Hancock, 1993; St. Leger, 2003; Wheatley, 2005).
“The more we study the major problems of our time, the more we come to realize that they cannot be understood in isolation. They are systemic problems, which means that they are interconnected and interdependent” (Capra, 1996 as cited in Jackson, 2003, p. 3). “It is the whole that seems to give meaning to the parts” (Jackson, 2003, p. 3).

Level 5 leaders are able to build on the diverse strengths and capacities within the system to create and co-create an open, emergent, curious, integrated, and holistic system that encourages leadership distribution and sharing of power at its highest levels. People feel empowered to lead and to share their unique gifts and expertise with others (Arnstein, 1969; Senge et al, 1990; Spencer, 2004; Wallerstein, 2006).

In this study, Level 5 leaders were just beginning to identify and address some of the deeper aspects of complex, emergent, curious, distributed, and shared leadership. The Level 5 leaders described how the health, well-being, and sustainability of the individual was interrelated with that of the whole. They talked about the interconnections between the health of the planet and the health of individuals; they reported their belief that materialism was getting out of hand and how we need to help students and teachers understand and appreciate a more ecological, holistic approach to health, well-being, and sustainability.

Many Level 5 leaders talked about the importance of having a greater purpose in life. “Systems containing human beings are, what we now call, purposeful” (Jackson, 2003, p. 9). They talk about moving from a self-centred orientation to a more service or ecological orientation to life (Spencer, 2004). Some leaders talked about the importance of the inner spirit and the need to have a greater appreciation of the common/greater good in life. These leaders had a big picture view of consciousness of health, well-being, sustainability, and of life itself.

Rohr (2013) explains:

Life is much more spacious now, the boundaries of the container having been enlarged by the constant addition of new experiences and relationships. You are like an expandable suitcase, and you become so almost without you noticing. Now you are just here, and here holds more than enough. (p. 119)

I am not preoccupied with collecting more goods and services; quite simply, my desire and effort – every day – is to pay back, to give back to the world a bit of what I have received. (p. 121)
A few of the district leaders talked about their experiences visiting and studying education systems in other countries, such as Finland, China, Italy, and the United Kingdom, through which they gained a greater understanding of education and its role in the greater scheme of life. They wanted to give back to other communities and cultures and to share their gifts with others. Some of these leaders talked about the importance of advocacy, social justice, and working towards equity and sharing of resources around the world. They recognize the inequalities of resources around the world and want to get involved in making some changes in this regard. Some said that they could do this through the education system, their own teaching and interaction with children and youth and by being more involved in this education system. A few participants explained how they wanted to work to improve other education systems around the world.

**Summary**

Participants in this study reported that in order for both the individuals and the system to be healthy, sustainable, and continuously learning there needed to be a greater concentrated effort to work toward Level 3, 4 and 5 leadership patterns. They felt that more open, creative, flexible, and emergent leadership patterns (Levels 3 to 4) would develop shared values and a shared vision of where they want to go together. In the research, this kind of leadership encourages people to be more interrelated and to work together to achieve agreed upon goals using their own unique capacities, strengths, and creative synergies. People are encouraged to be creative and figure out new ways to achieve their goals and to question and to create a true learning community. They begin to become responsible and accountable. They share power, control, and leadership as opposed to using top-down leadership. These leadership environments promote higher levels of diversity, flow of resources, and ideas, and much deeper and more authentic sharing of power and responsibility (Csikszentmihalyi, 1997; Siegel, 2010).

If this system (individuals and school district) wants to intentionally continue to become healthier and more sustainable, it will need to continue to become even more collaborative/adaptive (Level 3) and diverse in an empowering way, while also promoting more emergent/curious/generative (Level 4) leadership patterns of self-organization. At the same time, it will be important to take into account and be sensitive to the unique needs of individuals.
Overall, the participants wanted to see this organization continue to develop higher level patterns of leadership. This will involve tensions and dichotomies between and among diverse approaches and underlying values and worldviews in this system. As I discuss later, this tension will be generative in nature because increased levels of complexity and consciousness (i.e. Level 4 and 5) lead to much greater appreciation of diversity.

Most teachers in this study, particularly those working with principals or district leaders using a more collaborative/adaptive (Level 3) to an emergent/curious/generative leadership pattern (Level 4), reported feeling that they were experiencing stress and overload. This said, they reported that they were better able to deal with the complexities of change because their supervisors were buffering and protecting them. At the same time they were able to continue to develop and grow. These leaders were able to create an environment where leadership patterns were more flexible; had greater dynamic balance and greater social support; and more opportunities for people to address their own unique needs and deep purpose, while also working towards the greater purpose of the whole.

Principals with superintendents who were using more collaborative/adaptive (Level 3) patterns of leadership reported that flexibility, openness, and the capacity to listen and respond to personal and professional needs reduced their stress levels and provided them with more flexibility in terms of self-organization and the ability to grow while achieving their goals.

People who learn to read situations from different (theoretical) points of view have an advantage over those committed to a fixed position. For they are better able to recognize the limitations of a given perspective. They can see how situations and problems can be framed and reframed in different ways, allowing new kinds of solutions to emerge. (Morgan, 1986 as cited in Jackson, 2003, p. 31)

Understanding the Culture of Continuous Learning Sub-Pattern

Through My Reflective Framework

Diverse patterns of learning emerged from the data across this school district. These different learning patterns are also related to the five levels of leadership. The general pattern of continuous learning was the shift from single- to double-loop learning. There was also recognition of a preference for a shift from a more guided approach to improvement involving comprehension and understanding to a deeper approach to learning, adaptation, generativity, and

There were many opportunities for leaders across the system to access regional, panel-specific, program-specific learning and/or staff development activities. There were also international learning opportunities available for teachers, principals, and district leaders. This school district was considered by all of the participants to embody a learning culture, and they reported many opportunities to participate in and learn about diverse areas of interest related to literacy, student achievement, and student success.

**Sub-Patterns of a Culture of Continuous Learning: Five Level Framework**

The majority of the participants interviewed were clustered in Levels 3 to 4 learning patterns. Level 3 learning promotes collaborative learning, relationship building, and tends to tap into single-loop learning with some double-loop learning. Level 4 learning environments use double-loop learning, the promotion of diverse teams and collaboratives, and the use of diverse ways of thinking and knowing. These include critical thinking, systems thinking, integrative thinking, creative thinking, qualitative and quantitative measurement, participatory action research, assessment of learning styles, and inventories. These learning patterns develop commitment as people become more comfortable with the dynamic tension created by the acceptance of diverse ways of seeing and understanding the world.

The majority of participants interviewed believed that the learning culture of this school district was generally health promoting and sustainable. In some cases, participants reported concerns about too many opportunities for learning with examples of learning in areas that were not relevant and meaningful to them as individuals. They reported that when the learning was not meaningful or was imposed on them, the learning culture was not health promoting or sustainable. These comments are consistent with the idea that the most important aspect of learning in terms of health, well-being, and sustainability is that it is meaningful. Meaning is created when people feel they are engaged in decisions, have input, and see the relevance of the learning processes. That said, learning that is imposed can become meaningful when people are actively engaged in their own learning and work with others in a collaborative manner (Anderson, 2005; J. Miller, 2006).
A number of leaders interviewed across the system reported that they would like to see more resources put into individual mentoring and coaching programs with support to address unique individual learning needs. They acknowledged that people who wanted to take up formal leadership positions were given this support. They said they would like to see this support extended to people who wanted to take on more informal leadership and learning positions.

In this study, I found that the majority of the participants were developing a deep understanding and appreciation of the importance of working together in a collaborative culture (Level 3). This work has been ongoing in this organization and is evidenced in examples such as a dynamic 10 year initiative focused on building literacy capacity through a shared leadership model. This is an example of internal expertise being developed and supported through connections to external expertise.

We can think of deep learning as getting to know ourselves and others and working together towards a common good. UNESCO’s four pillars of learning (1996) frame this idea: learning to know; learning to do; learning to be; and learning to live together.

The overall patterns of a culture of continuous learning can be seen as striving to develop from a top-down/planned/improvement organized learning system (Level 2); to a more adaptive/collaborative social learning system (Level 3); to a more curious/emergent/generative learning system (Level 4); and, ultimately, to an integrative/holistic/complex, global, ecological learning system (Level 5).

Trust, openness and healthy relationships are key in moving from an aligned learning pattern to a more humanistic, social, collaborative learning pattern (Goleman, 2002). Trust and openness are foundational to growth and development related to higher levels of emergent, complex, diverse learning environments. This also requires asking deep questions that may disturb the equilibrium and status quo; demand major changes in system direction; and create systems that are able to think about diverse worldviews and action-logics (Torbert, 2004).

**Clustering of Elementary and Secondary Schools**

Using my Reflective Framework and the extensive information gathered from this study, I was able to approximate the Sub-Patterns of a Culture of Continuous Learning across the five levels for the elementary and secondary schools in this study.
In this study, schools that used a top-down/planned/improvement (Level 2) learning pattern tended to focus on using an aligned, organized, standardized approach to improvement. This left little room for deep questioning and double-loop learning. Top-down aligned learning environments and leaders were characterized by extensive use of predetermined plans, objectives, and goals. They were not very open to questioning the deep logic of the direction they were taking or to changing direction unless there was a significant crisis or directive from the external environment.

The elementary schools in this study reported feeling that their system practiced a top-down/planned/improvement (Level 2) learning system pattern despite often espousing openness, creativity and emergence. Participants reported that there were not many opportunities for deep reflection, encouraging different ways of understanding, and making significant changes and adaptations as they progressed. A number of participants reported being frustrated that their inner wisdom, life experience, and inquiry were not fully appreciated in this system. They were generally focused on learning about what was important to the Ministry and the district in relation to the accountability frameworks. Many people were trying to move to more flexible, open, double-loop, generative learning and change. They were finding that difficult.

In the secondary panel, the school leaders reported that there was more tolerance and openness to collaborative/adaptive (Level 3) and emergent/curious/generative (Level 4) learning patterns. The major focus was on collaborative/adaptive learning patterns (Level 3). It was acknowledged that the district itself with its guidelines, protocols, policies, and resources was trying to hold the secondary system in a more aligned, top-down pattern. This discouraged individuals and the system from growing and developing an emergent and double-loop learning system. One secondary principal (D 1), for example, explained that the school district itself was aligned. While it had some collaborative/adaptive learning patterns through the system plan, the district was keeping the schools and school leadership from shifting too far in terms of creating a more emergent/curious/generative (Level 4) learning pattern.

The secondary principals reported that they had worked to develop a number of feedback looping processes to ensure they had significant and meaningful input into staffing, union negotiations, resource allocation, and the overall direction of the secondary system. They had a strong voice and significant levels of autonomy in their schools and communicated on a
continuous basis with each other and their system leader. They also had ongoing meetings and opportunities to share their experiences, problems, and issues. They were attempting to create learning patterns that were more collaborative/adaptive (Level 3). There was also some emergent/curious/generative learning capacity (Level 4) while working within the larger mandates, frameworks, and guiding vision of the system. People reported feeling comfortable bringing forward their concerns on a regular basis and were developing a much deeper capacity to learn. In comparison, the elementary panel had a largely top-down/planned/ improvement orientation. The elementary panel was also in the process of developing top-down networks.

**Level 1 and 2 Culture of Continuous Learning Sub-Patterns**

Level 1 and 2 culture of continuous learning patterns are largely top-down, directive, and focused on improvement (based on pre-determined plans, goals and targets). Participants reported a significant focus on improvement. This dominant focus was particularly evident in the elementary system and many participants reported that it was the major focus of the Ministry of Education.

There were several educational and training programs which were developed at the top of the organization. Programs were pre-developed and people were trained, educated, and given information and resources to meet the pre-determined needs of the organization. There were only a few reported examples of Level 2 programs in this system. A few teachers reported a problem with the process and how people were being treated during the professional development sessions. A few said they were not feeling respected and that their experience was not being fully appreciated.

While teachers were trying to move to Level 3 and beyond, trying to become more innovative, creative, and inquiring, they were finding the dominant pattern of accountability and improvement in the elementary panel to be draining their energies and passions. Their focus was working on specific tasks and outcomes. Many elementary leaders explained that they did not have time or energy to meet some of the basic human needs of the students and staff or to address diverse ways of knowing including creativity, music, arts, and the more complex needs of students and teachers.
Level 3 Culture of Continuous Learning Sub-Patterns

The Level 3 culture of continuous learning patterns observed in the school system encouraged a collaborative/adaptive approach. Through this approach, people were encouraged to attend system-wide programs that were participatory and collaborative and addressed many unique needs of individuals and the collective. These sessions focused on overall group needs.

Learning at this level is still largely planned and coordinated at the top of an organization or by a small group of people, but a more adaptive and application-focused approach to learning is used. People are brought together to participate in dialogue and discussions about how new knowledge can be used to improve their own practice. They can take this knowledge and apply it in their own unique situations, thereby giving it a deeper level of meaning. Single-loop learning can give rise to improvements in the system, but the underlying assumptions are implicit and go largely unchallenged (Argyris & Schön, 1978; Torbert, 2004).

Level 4 Culture of Continuous Learning Sub-Patterns

Level 4 culture of continuous learning patterns promote individual unique needs and differences and also develop very strong schools, panels, and districts that can build on diversity and creative tensions.

Level 4 can be termed double-loop learning (Argyris & Schön, 1978) where more emergent/curious/generative learning patterns are encouraged and promoted. In double-loop learning, the analytical frame is expanded and people explicitly identify and then challenge the underlying assumptions. Then they develop more adaptive and generative capacity as they re-think how to function to a higher level of generativity. At this level, differences are fully appreciated and tapped into, and creative tensions are used to generate new and deeper learning.

Level 4 learning patterns exhibit strong capacities, knowledge and skills through collaboration and involves the social capacities to move from single- to double-loop learning (Argyris & Schön, 1978). This allows them to question the action-logic (Torbert, 2004) of the strategy, goals and values of the organization; to ask deep questions that may take people off the course as pre-determined; and to create deep dialogue (Bohm, 1980) for transformative change.

In these double-loop learning environments, participants were challenging themselves and others, moving from espoused to actual behaviour and values. They were challenging the
system overall to be more congruent with their espoused values of creativity, diversity, openness, innovation, inclusivity, equity, and sustainability. They were asking very deep questions about health, well-being, and sustainability of individuals and the system and how this could be further explored (Johnston & Caldwell, 2001; Senge, 1990; Senge et al., 1994; Senge et al., 1999; Senge et al., 2000).

Level 4 participants were asking deep questions and challenging the status quo. They were trying to bring forward questions about the goals and values of the education system overall; the role of education in society; and the values of society in relation to the education system. They asked about issues related to accountability, measurement frameworks, and indicators. They also asked how to get to the root of some problems in society related to the determinants of health, education, and sustainability.

At this level people were able to use open design, allowing them to evolve their own double-loop learning. They avoided getting stuck and having to follow the top-down designed plans. Leaders were open, flexible and emergent. They created the space for people to take risks, make mistakes and be creative, coming up with new solutions and ideas. Leaders had the confidence to support others to grow, be open and authentic.

The term learning organization would be indicative of this pattern of learning (Senge et al, 1990). At this level people are more confident in their own capacities to learn and grow; to question their own underlying values and assumptions; and to continue to learn to learn as they go along. Learning organizations develop the capacity to ask difficult questions which may require major changes in direction and use of resources along with continuous learning and feedback looping. At Level 4, there is a growing appreciation of “differences and participating in ongoing creative, transformative action logics” (Torbert, 2004, p. 93). Torbert explains that “we develop the capacity to think inter-systemically in action….Causation is recognized as circular, relational and systemic” (p. 94). Differences between and among people are appreciated and used “for constructing a genuine integrity in action” (p. 94).

Martin (2009) talks about developing the opposable mind which helps people to use integrative thinking. This requires learning how to hold multiple models in your mind at the same time and then being able to develop a new model – one that is different than either model but integrates many of the benefits of both models. In this way people learn how to see things in
different ways and integrate some of the positive aspects of different models to create completely new models. This is a skill that can be learned and Martin believes that some of the best leaders in the world develop this capacity. It can move us from an *either or mentality* to an *and/and* thinking approach. What can we learn from diverse models to create something completely new that integrates the key or best aspects of different models?

Level 4 culture of continuous learning patterns are about an attitude of awareness for people as well as opportunities for learning. Participants at Level 4 reported that they would like to see more individualized learning plans, coaching, and mentoring opportunities so that they could address their own unique needs, levels of development, and unique aspects of differentiation and complexity. This level involves much deeper reflection, inner awareness, and mindfulness. Individuals and collectives operating at this level were encouraged to use more inquiring approaches, experimentation, participatory research, and deep questioning (Argyris & Schön, 1978; Bohm, 1996; Johnston & Caldwell, 2001; Torbert, 2004).

**Level 5 Culture of Continuous Learning Sub-Patterns**

In this study, between Level 4 and Level 5, we come to a deeper realization that learning is not just an intellectual process. Rather, it becomes a holistic capacity to grow, be creative, be open, take risks, and live with each other. This includes the ability to learn to live sustainably, moving to generative, creative, future-oriented, curious thinking (Capra, 2002; Martin, 2009; J. Miller, 2006, Wheatley, 1995).

At Level 4 and into Level 5, we appreciate that *learning to learn* needs to be part of our ongoing human development process. Continuous learning is essential to the health, well-being, and sustainability of individuals, organizations, our society, and global world. This level encourages the development of a more integrative/holistic/complex learning environment that allows us to work collaboratively to design and create new ways of thinking, being, and doing.

As we move to the Level 5 learning patterns, we come to recognize more fully that only if we can continue to learn and grow and evolve on a deep level can we be healthy and sustainable as individuals, organizations, communities, and a society. A number of theorists, practitioners and researchers in many fields have come to this realization (Capra, 1996, 2002; Hancock, 1993, 1996a, 1996b, 2000, 2011; Teilhard de Chardin, 1955; Wheatley, 2005).
Level 5 learning is integrative, holistic and complex in nature. It requires being able to integrate and appreciate many of the other types of learning that occur at Level 2, 3, and 4. It also involves learning at the ecological, spiritual, and global levels. People who are learning at this level feel a deep sense of connectedness to nature, each other, and the spiritual.

Summary

Over the last 10 years, the Director and many of his senior leadership team, along with a number of external consultants, worked to create a very open, collaborative, and diverse high-performing organization (Levels 3 to 4). They developed a positive culture of deep double-loop learning (Levels 3 to 4); high levels of distributed and shared leadership (Levels 3 to 4); and high levels of interrelatedness of work and life (Levels 3 to 4). This is reflected in very high levels of meaning, purpose, and consciousness that developed and flourished throughout this organization (Levels 3 to 4). There were opportunities for many of the principals, teachers, and district leaders to travel and learn in other countries about diverse and high performing education systems. They were able to participate in jurisdictional learning that brought people together from around the world to dialogue about education and the role of education in society.

In the literature, one of the most important aspects of developing different ways of knowing and learning is letting go. Surrendering control and letting go was reflected many times in this study. Many of the participants talked about this letting go process and often how it was connected to much deeper processes of loss, change, and growth. Many of them described how they were not able to continue to grow and develop until they had surrendered and moved on from other major issues and struggles in their life. This finding relates to Principle 11: Loss, Change, and Letting Go and recurs in all three sub-patterns: leadership, a culture of continuous learning, and interrelatedness of work and life (Capra, 1996, 2002; Lesser, 2005; Myss, 2004; Rohr, 2013; Senge, 1990; Senge et al., 1994; Senge et al., 1999; Senge et al., 2000; Senge et al., 2004 Viorst, 1986; Wheatley, 2005).

This loss and letting go process seems to be highly connected to creativity and generativity which are essential aspects of deep learning, growth, and development and also essential to health, well-being, and sustainability. There is research that is showing some of the links between creativity, generativity, flow, connectedness, and empathy. A number of
participants talked about this deep process of learning and letting go and how it was also integral to a deeper spiritual or ecological process of change and appreciation of life (Lesser, 2005; J. Miller, 1996, 2000, 2006; Moore, 1992; Rohr, 2013; Senge et al, 2004; Viorst, 1986).

Moore (1992) explains: “A deep ecological sensibility can come only from the deep soul, which thrives in community, in that it is not detached from the heart, and in relatedness to particulars” (p. 270). J. Miller (2000) expands: “Our soul needs a sense of place. We often experience soul in nature because the direct experience of the sun, trees, grass, flowers, and the earth are so nourishing to our soul” (p. 93). Experiencing life, loss, and change though our physical environments and our soul can be important in lifelong learning processes.

Overall, the majority of the participants believed that this school district had a culture of continuous learning and that it was generally health promoting, particularly when they had a choice in what they wanted to learn. Many participants reported that they would like to continue to be supported to learn deeply, be innovative, and try out new ideas. They recognized that innovation requires making mistakes. In this district, the majority of schools and participants were at Levels 3 to 4 with a very small number at Level 5. A number of leaders throughout this system reported how helpful it would be to have more coaching and mentoring.

In this school system, there was a growing consciousness of the capacity to intentionally create and co-create learning environments that generated deep learning and growth for individuals and for the system. Many school environments were moving to more collaborative/adaptive (Level 3) and emergent/curious/generative (Level 4) learning patterns.

Some people questioned the overall direction of the district in key areas, particularly in relation to their perceived over-use of quantitative data and the narrow focus on student achievement. These participants were developing a deeper collective awareness about the importance of continuous learning, as opposed to continuous improvement. There was an awareness of how they could learn to tap into the synergy of the whole by bringing their own unique strengths and learning capacities forward. This included intuition, wisdom, social/emotional intelligence, spiritual and ecological knowing, and creative thinking, to name a few.

In the system, there were still some leadership patterns that were keeping people from shifting to the more emergent/curious/generative (Level 4) learning patterns. Leadership was the
major enabler; therefore it influenced the capacity of the system to move into more complex learning patterns.

There were also tensions and paradoxes across the system that will be discussed later in this chapter. How open are the leaders and the system overall to becoming more generative and emergent? Are they open to significant changes in direction and to questioning their deep values and worldviews on education in society? Are they open to discussing their patterns and potentially shifting them?

**Understanding the Interrelatedness of Work and Life Sub-Pattern**

**Through My Reflective Framework**

Many participants reported that interrelatedness of work and life was an important area of the study and that it gave them an opportunity to deeply reflect on their own lives in a more holistic way. Many wanted to discuss this area as the first priority. Patterns of interrelatedness of work and life coming out of this study ranged from:

a) a focus on ME as an individual and the issues that individuals face in relation to their own health, well-being, and sustainability (Level 2);

b) a greater focus on WE as participants broadened their concern to take in the health, well-being, and sustainability of families, colleagues, organization, and community (Levels 3 and 4); and,

c) a bigger picture perspective on interrelatedness with a focus on US that took into account the health, well-being, and sustainability of the whole – the whole of society, the whole world, the whole planet (Level 5).

Interrelatedness requires paying attention to unique differences (differentiation) and the capacity to co-create the whole (integration). This is a synergistic process that requires both healthy and sustainable continuous learning individuals and organizations. We cannot ensure the health, well-being, and sustainability of individuals at the expense of the collective, or the health, well-being, and sustainability of the collective at the expense of the individuals. They are intertwined (Beck & Cowan, 1996; Csikszentmihalyi, 1997; Hancock, 1993, 2000, 2011; Siegel, 2010; Kabat-Zinn, 1990).
Those interviewed in this study indicated that in this school district there was no specific, intentional focus on the health, well-being, and sustainability of the professional learning environment. This said, many of the leaders (district, principals, and teachers) intuitively paid attention to and nurtured the health and well-being of their staff and colleagues. There were a few cases where people reported that they had become very tired and drained.

**Sub-Patterns of Interrelatedness of Work and Life: Five Level Framework**

The interrelatedness of work and life sub-patterns were closely connected to the levels of leadership and a culture of continuous learning. As the levels of leadership and learning became more highly complex and conscious so did the patterns of interrelatedness of work and life.

A helpful framework for this discussion can be found in Maynard and Mehrtens’ *The Fourth Wave* (1996). In general, the second and third wave described by Maynard and Mehrtens are very similar to the second and third levels of interrelatedness described in this study; their fourth wave is very similar to Levels 4 and 5 in this study.

**Level 1 and 2 Interrelatedness of Work and Life Sub-Patterns**

At Level 1 and 2, participants reported their personal concerns related to health, well-being, and sustainability. They focused on ME and had a perspective on the world limited to how it affected them as individuals. Participants at this level described interrelatedness as a way to get more time for themselves; to organize their life and work; to ensure a high quality life for themselves and family; and to organize more effectively to meet all of their unique needs. They viewed interrelatedness as a siloed, compartmentalized way of balancing work and life.

Maynard and Mehrtens (1996) describe the second wave of change as congruent with a machine mentality or industrialized thinking in business and the corporate sector.

Work is separate from other aspects of a person’s life and it is up to each individual to figure out how they will organize their life and resources and ensure they have time to accomplish what they want to do. (DL 3, District Leader)

A small number of participants overall expressed beliefs and values of this level. They tended to work in areas of the system that were very organized, tightly controlled, highly hierarchical, and very regimented and directive in nature. In these areas, leaders viewed health as
a personal responsibility, not connected to the overall organization, and more of an issue for benefits and contractual arrangements. Participants reported that people were expected to fit into the overall organizational goals and objectives.

**Level 3 Interrelatedness of Work and Life Sub-Patterns**

At Level 3, there is a jump in awareness and consciousness. There is an emerging “WE” orientation. Leaders are more open, caring and respectful of individuals and they have a higher consciousness of the interrelatedness of individuals and the whole. Leaders at Level 3 relate well to their colleagues and their staff and they work in a much more collaborative and caring manner. In this study, these leaders are described as being there for others, listening with their hearts, and ensuring people do not feel isolated or alienated. They often advocated for others.

Based on Maynard and Mehrten’s model (1996), individuals at this level are moving into Third Wave where truth, openness, collaboration, and learning are a high priority. There is the beginning of a sense of shared responsibility. All members are responsible for setting direction and have meaningful input into decision-making and there is a move to a more collaborative, team, community approach.

Level 3 interrelatedness of work and life patterns in this district involved paying attention to each other as colleagues. The principals at this level paid particular attention to the health, well-being, and sustainability of their staff. In many cases, principals covered for their staff; gave them days off; taught classes for them; and developed collaborative timetables to cover people when they needed to pay attention to their personal and family lives.

**Level 4 Interrelatedness of Work and Life Sub-Patterns**

Level 4 interrelatedness of work and life patterns involved asking deeper questions about the interrelatedness of work and life. In these environments, many teachers, principals and district leaders were comfortable questioning the pressure, the overload and how hard staff needed to work to achieve the goals of the organization. They wanted to review the overall organizational values and goals and to find ways to reduce the overload, pressure, stress, and inflexibility of rules and procedures.
Level 4 leaders were beginning to recognize the need to further develop character education which focuses on individuals and to achieve a broader perspective on global, ecological, and spiritual development. Some called this global citizenship; others called it ecological well-being and sustainability. They believed developing this broader understanding of health, well-being, and sustainability would support individuals to grow and become more highly conscious, and would encourage the synergistic growth of the whole organization.

Many leaders wanted to see more of a service orientation and more opportunities for the organization as a whole to reflect on how it could give back to a global society. Some of these participants focused on the ecological crisis, some on social issues, and others on issues related to education and society as a whole.

The participant feedback indicated that between Levels 4 and Level 5 people began to look at serving others and contributing back to the whole. They began to have a greater appreciation of global stewardship and emphasis on the quality of life. They were beginning to look at inequalities and disparities in their own immediate surroundings and broader society; and issues of social justice were beginning to be addressed. Participants were developing an ecological sensitivity and beginning to act as stewards in the world. These values have been identified by many professionals working in diverse fields (Barrett, 2010; Beck & Cowan, 1996; Capra, 2002; Hancock, 1993, 2000, 2011; Spencer, 2004).

**Level 5 Interrelatedness of Work and Life Sub-Patterns**

Level 5 interrelatedness of work and life patterns involve developing a broader and deeper appreciation that health, well-being, and sustainability of each individual is interrelated to the health, well-being, and sustainability of the whole – the whole society, the whole planet, the whole of life. There were only a few participants reporting this level of interrelatedness of work and life – what I call an US orientation.

Level 5 interrelatedness of work and life patterns are consistent with Maynard and Mehrtens’ *Fourth Wave* (1996), and Marilyn Schlitz’s (2007) *Fifth Level of Social Consciousness*. From a health, well-being, and sustainability perspective, Level 5 focuses on the value of interrelatedness of work and life. There is encouragement of creativity, personal growth and development, higher forms of distributed and shared leadership, higher forms of
empowerment, and deep learning. There is a greater appreciation for all kinds of knowing – intuition, rational decision-making, tacit knowledge, indigenous knowledge, and creative thinking. Diversity and lifelong learning are embraced; and leadership is promoted at a very high level. Sharing of power is encouraged and promoted at the local, national, and global levels (Arnstein, 1969; Hancock, 1993; Raeburn & Rootman, 1998; Wallerstein, 2006).

At Level 5, we learn how to tap into and synergize the whole – our physical, social, emotional, intellectual, and spiritual well-being which is the World Health Organization’s definition of health (WHO, 1986). The individual’s inner meaning, purpose, and consciousness resonates with the collective’s meaning, purpose, and consciousness. Both are valued.

**Summary**

As with the other two sub-patterns – *leadership and a culture of continuous learning* - there was an overall expressed desire by some participants to try to develop levels of complexity and consciousness: from a ME to WE and ultimately, to an US orientation. Leaders across this system were becoming more conscious and aware that health, well-being, and sustainability are not just about the individual, but also about the collective (schools, colleagues, and organization), and a few participants recognized it was ultimately about the health, well-being, and sustainability of our society and planet.

**Understanding the Synergy Point: Meaning, Purpose, and Consciousness**

In examining the leadership, a culture of continuous learning, and the interrelatedness of work and life sub-patterns, I returned to the intersection of all three system environments: meaning, purpose, and consciousness, or what I have termed the synergy point. This system environment and principle emerged and provided coherence in this complex and diverse system.

My Reflective Framework: *The Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability* helps us to reflect on where we are as an individual, as an organization (school district) and as a society. We can ask what progress have we made and where we want to go as a local school district and as an education system across Ontario and beyond.
A number of theories, frameworks, and models have been very helpful in enriching my own understanding of these different levels. As discussed at the beginning of this chapter (Wilber, 2006, p. 5), the levels do not exist in isolation but are nested in a recursive hierarchy or synergistic looping process of increasing complexity and consciousness. The richness of each level is subsumed into the next. As in all whole systems, we can also tap into all of the levels at the same time and expand our potential to create synergistic potential, wholeness, and health.

For participants at Levels 2 and into Level 3, meaning, purpose, and consciousness were about trying to fit in with the overall goals of the organization. People wanted to be accepted and respected. They wanted to contribute to the whole. In Level 2, they knew the rules and followed the direction that was determined largely at the top of the organization and at the Ministry level.

In Level 3 the meaning, purpose, and consciousness was closely interrelated to social/emotional well-being and living in community – a collaborative environment where they began to develop their own vision that was fairly congruent with the overall vision and values of the organization. They worked very closely together. They respected each other.

At Level 4 there was a new way of thinking. At Level 4 people in this study worked together quite differently. They started to become more self-organizing. Meaning, purpose, and consciousness was about developing their own unique ways to self-organize and they drew on many diverse ideas, opinions, and worldviews. They were not afraid of being different, of speaking up, and of examining alternative ways of getting to their destination. They found new ways to connect to each other but did not want or expect everyone to be the same. They thrived on diversity and tapped into these differences as much as possible, creating tension which lead to positive synergy. There was reported to be a higher level of synergy at Level 4.

At Level 4 people were very enthused and passionate about their own individual ideas and at the same time they felt deeply connected to the whole/collective. In this environment they were better able to develop their individual uniqueness - to differentiate and at the same time to integrate with the whole towards a common and agreed upon purpose.

At Level 4 people were learning in very different ways and there was more acceptance and tolerance of differences. Starting in Level 4 and going into Level 5, the networks and connections in this study were very strong, but people tended to go further afield in their interests and developed their own unique strengths and expertise. They were still very grounded in and
committed to their schools, but they reported feeling comfortable going out to learn for periods of time. People were excited to be involved in year-long sabbaticals and leaves, going back to school, and organizing international projects and volunteer opportunities. People reported sharing common values and respecting and caring for each other. They did not feel restricted or controlled. People took on more challenges than in many other schools. They did this because they believed in and were passionate about the work they were doing and were growing in a synergistic manner through these chosen activities.

In examining the data from this study, each level is very different and cannot be explained exclusively by the previous level. Capra refers to these differences as “emergent qualities” (personal communication, September 2011). As the schools/collectives develop, they become more highly differentiated and more highly integrated, which is the definition of complexity. At each level, the participants were drawn together by a common purpose and meaning in life and this created a sense of coherence in each school. At each level, there was a different sense of meaning and purpose arising from their level of complexity and consciousness which was co-created in their environments.

Antonovsky (1996), a psychologist and well known health promotion researcher, uses the concept of “sense of coherence” (p. 15) as one of the major aspects of creating healthy systems. His work has played a key role in developing a “salutogenic approach” (Antonovsky, 1996, p. 13) to health and well-being. This has been developed over the last 10 years, particularly in Scandinavia. Antonovsky’s concept of health as “sense of coherence” appreciates that health is a diverse and complex process of salutogenesis – health creation.

The participants in this study explained that they needed to feel a deep sense of connectedness, meaning, and purpose in their lives to be healthy and sustainable. They believed this was essential for the long term sustainability of themselves and their organization. They also wanted to have a sense of freedom to express their feelings and human goodness in terms of expressing a deep respect for human life, including empathy, caring, compassion, joy, sadness, and forgiveness. They wanted to be truly themselves while working with others in relationship.

Participants at Levels 3, 4 and 5 expressed that they wanted to be authentic, open, deeply listened to, and encouraged to grow at a deep level. They talked about wanting to continue to develop to their highest potential. At Level 5 they also wanted to help others realize their
potential and give back to greater society in some way. This seemed to be more of a converging process as they have developed their differentiated selves and now feel confident to give back to others. As they grow in complexity and consciousness they are moving towards:

- leadership that promotes openness, honesty, trust, truth, voice, choice, freedom, sharing of power, control, and empowerment;
- learning that is deep and encourages dialogue, questioning, risk-taking, and creativity;
- interrelatedness that moves from a ME orientation to an appreciation of WE, and then a more global, ecological, spiritual orientation of giving back to the world – an US orientation to life.

**Tensions and Paradoxes**

One of the major realizations coming out of this study is that in a health promoting, continuous learning, sustainable system there are tensions and paradoxes that are occurring continuously. Using my Reflective Framework, I explore some of the tensions and paradoxes that arose in this school district and its broader environment. It is important to remember that the systems are open and nested in other open systems. This nesting phenomenon has a significant influence on the tensions and paradoxes that are created on an ongoing basis.

Tensions and paradoxes are ongoing, reinforcing cycles or recursive looping processes. They can be viewed as contradictory yet interrelated elements of the whole, shifting worldviews and values, divergent perspectives, conflicting demands, and complex interrelationships. They are important because of the synergistic dynamics within and among the levels in my Reflective Framework. A system exists in a state of dynamic equilibrium where there is a constant push and pull between divergent forces (Smith & Lewis, 2011) and the long term sustainability of the system is, in part, related to the ability to proactively, creatively, and generatively thrive on these tensions and paradoxes.

Putnam (1986) discussed three interrelated types of tensions as: self-referential loops, mixed messages, and system contradictions. Argyris (1993) explains how tensions stem from ambiguous messages. Smith and Lewis (2011) reviewed extensive paradox literature and presented a dynamic equilibrium model which “depicts how cyclical responses to paradoxical
tensions enable sustainability – peak performance in the present that enables success in the future” (p. 381).

We can see how these diverse ways of understanding tensions and paradoxes can help us to examine some of the complexities in this study. For example, one participant (DL 15) explained how his supervisor was espousing teamwork, deep dialogue, and honesty, while at the same time closely monitoring his performance and his time at work. “Over time this type of contradiction and confusing message creates tensions that become part of larger system contradictions and entrenched within the goals, reward systems, resource demands, and division of labor of an organization” (Putman, 1986, p. 161). Another example is that this organization was encouraging collaboration while at the same time many of the participants in key areas reported feeling their voices were not being listened to. There were limited forums for ongoing dialogue, and they perceived that they had no input into major decision-making. These tensions were creating underlying resentments and frustrations. People in some areas of the system reported that they did not feel comfortable coming forward to express their issues in an open and honest manner. One principal (F 1) said that when he did get the courage to come forward with concerns they were ignored by senior management. He eventually just stopped bringing his concerns forward. In systems, certain patterns are reinforced and others are ignored.

Deliberately becoming more conscious of these tensions and paradoxes is important in healthy sustainable learning systems. In environments that are not open and honest, people can become mistrusting and resistant to change. In such settings, people were not open to continuous learning and change which is fundamental to a healthy sustainable system. They become wary and untrusting and protect themselves instead of opening up and being open to new ideas and approaches (Capra, 2002).

A very important dichotomy is the tension between power over and power within (Arnstein, 1969; Spencer, 2004). This is a positive and creative tension that can encourage deeper growth, learning, and development. Many of the leaders throughout the system reported growing and developing their own inner power and how this helped them to self-actualize and to move towards self-transcendence (Maslow, 1954). They reported how they became much more holistic, appreciated the complexities of life, and realized that the development of their own inner power was key to this ongoing complexity and consciousness development process.
In identifying the tensions and paradoxes, I drew significantly on the 12 Principles. While all 12 Principles were relevant, Principle 6: Dynamic Balance and Self-Organizing Systems played a key role in gaining a greater understanding of the continuous flows and cycles of health, well-being, and sustainability in systems change.

Adopting a dynamic equilibrium approach to organizing can unleash human potential….The dynamic equilibrium model proposes that this virtuous cycle enables sustainability by fostering creativity and learning, enabling flexibility and resilience, and unleashing human potential. (Smith & Lewis, 2011, p. 394)

There were also some larger contextual tensions and paradoxes that were occurring in this study related to how systems are nested within larger systems. This nesting occurs in personal relationships, families, workplaces, and broader social, economic, political, and environmental forces in society. Disturbances and lack of trust were created as the broader systems shifted. Broader changes in political systems, union agreements, and overall relationships with teachers and principals over the last twenty years had a significant influence on current relationships.

Many participants talked about the major shifts in societal values and perspectives about education and teachers and how these have been influencing them personally and professionally. They reported how larger political and economic decisions have also had a major impact on the education system, their workload, and the way they feel. This shift also impacted how some parents treat teachers and the overall expectations of teachers in society. Many participants reported that over the last ten to fifteen years there has been significant pressure on teachers to take on more workload and more of society’s role in caring for children and youth. Some participants reported that no matter how hard they tried, they were still being asked to take on more and more of the key responsibilities of child development. They were finding this very stressful and they often felt they were not appreciated.

In this study, individual worldviews, values, and underlying assumptions often came into conflict when there were changing and shifting values and worldviews of direct supervisors, workplaces, communities, political and governing systems, and our broader economic and social forces. As health, well-being, and sustainability is significantly influenced by our deep sense of meaning, purpose, and consciousness these major shifts and changes can have significant influence. Antonovsky’s (1996) research focusing on a sense of coherence also substantiates
these important study findings. People need to feel a deep sense of coherence; that they have the resources and capacities to ensure their purpose is manageable; and they are able to work towards and achieve their passion and goals in life.

In the summary discussion that follows, I have tried to show how an appreciation of an and/and approach (Capra, 2002; Rohr, 2013) instead of an either/or approach can more fully enhance the creative tensions and paradoxes in an organization and bring about a more healthy and sustainable system.

There are four major tensions and paradoxes emerging from this study: Organizing and Leading; Learning and Social Systems; Differentiation and Integration; and Diverse Values in Healthy Sustainable Systems.

**Organizing and Leading**

In this school district, there are tensions and paradoxes between developing and maintaining a top-down planning and accountability framework, which can be considered to be a control strategy (Leithwood, Steinbach & Jantzi, 2002), and ensuring an open, creative, emergent system that is developing the capacity to learn, adapt, generate, and self-organize (Capra, 1996; Wheatley, 1999, 2005).

Leaders reported valuing and espousing very different approaches and philosophies to education and to systems change. The system as a whole espoused values of diversity, creativity, openness and, development of diverse skills and capacities, but there were aspects of this system that were working to create a much more standardized, top-down accountability framework.

Many researchers, including Hargreaves and Fink (2006), explain how standardization eliminates the richness of diversity. Spencer (2004) offers her viewpoint.

Creativity means change and change means growth. It also means loss of control. When you bring opposites together, there is tension. That tension creates emotion, and that emotion generates energy. It is exciting and risky. It requires an understanding of polarity and the willingness to work with paradox. It takes us out of our comfort zone and raises issues of difference, and the possibilities for confrontation. However, without it there is repetition and stagnation….It presents us with the opportunity for acknowledging and harmonizing the opposites that generate both our inner and outer tensions. The leadership challenge in the creative process is to paradoxically provide enough structure to allow freedom. (Spencer, 2004, p. 87)
This school district has both of these patterns of leadership. This leads to important questions: How can this system bring both of these diverse approaches together to foster the creative tension that is required to ensure structure and order while allowing significant generativity, creativity, freedom, and choice?

Many participants reported that the school district was currently pushing too far towards an ordered and standardized set of quantitative outcome measurements. They reported that some of the system leaders were trying to create structures that would promote conformity. The *one size fits all* approach is a term used by many of the participants in this study. At the same time, the more creative, open, emergent leaders were finding it difficult to grow, learn, and change in key areas of the system where this top-down pattern of leadership was very dominant.

Many participants explained that these system changes were due to major provincial political and governance shifts occurring at the Ministry and in society as a whole. Their perception was this shift was pushing the education system and districts towards standardization of student achievement, quantitative measurement, and leadership development competencies.

In reviewing the literature, a number of studies substantiate the current findings. One study by Leithwood and associates found that major shifts in accountability frameworks can create significant resistance to change and negative attitudes and feelings towards policies and direction of the Ministry (Leithwood, Steinbach & Jantzi, 2002).

A number of the participants in this study expressed their concerns about this ongoing tension. They believed that the top-down approach was contrary to the original vision and value statements agreed to through a large district consultation process. They explained that the original values of diversity, openness, collaboration, innovation, and emergent forms of distributed and shared leadership were being slowly de-valued and diminished with this major shift by the Ministry to an excessive focus on quantitative accountability and measurement.

At the same time, some members of the senior leadership team were encouraging openness, creativity, and authenticity. Participants reported that the Ministry of Education’s continual downloading without significant feedback looping and involvement of leaders in the education system was creating another major system tension. Even when the system leaders were open and encouraged feedback and ongoing looping, the larger systems in which they were
nested (e.g. the Ministry) did not involve them. How can these dichotomies provide the feedback looping to ensure a more meaningful and healthy approach to large scale systems change?

A number of key educational studies have also highlighted this important tension and paradox. Duggan (2009) explained:

Policy makers continue to exert pressure on schools to accelerate levels of student achievement. However, the current emphasis in the field of school improvement is to build the capacity of schools to improve through self evaluation, distributed leadership, and participation. (p. 43)

Duggan emphasizes the need to become more aware of this tension and to use persuasion rather than coercion. MacBeath’s research (2008) further substantiates these findings and explains how top down accountability driven policy environments are “deskilling rather than empowering teachers. Richness and creativity are lost by formulaic prescription” (pp. 125–126).

A few principals interviewed said that they were not feeling fully engaged, listened to and valued. They reported that they had tried on numerous occasions to speak up publicly and no one seemed to be listening; others said that some people were taking too much power, control, and authority. They were directing others too much without sufficient engagement.

It is important to think about these important tensions and paradoxes in order to promote a healthy sustainable system. How can a system develop the capacity to organize and ensure stabilizing conditions but at the same time remain open enough to encourage innovation, promote the value of diverse voices, and facilitate the capacity to self-organize? How can the system look at ensuring both of these simultaneously? Are there times when one is more important than another?

**Learning and Social Systems**

In this organization there were tensions and paradoxes between scientific, rational, and expert ways of knowing and intuitive, wisdom, tacit, creative, and empathic ways of knowing. The district leaders brought a diversity of ways of knowing but the central accepted norm seemed to be that evidence and true knowledge are more legitimate when they are rational, quantitative, tested, and proven through scientific methodology or quantitative academic
research. A high premium was placed on academic, rational, knowledge, and evidence and a critical balance of intuition and data seemed to be lost.

There were a number of district leaders who reported tapping into other ways of knowing including wisdom, intuition, qualitative research, and action-learning methodologies. Overall, the participants reported that the culture in this organization put more value on academics, hard measurement, and scientific research. Some of the participants reported that there was a lack of appreciation for the use of intuition, wisdom, and other diverse ways of knowing, including restorative practices, life long experience, and tacit knowledge. A significant number of the participants interviewed reported that they would continue to use diverse ways of knowing in their own decision-making processes and in their own school environments. Many principals, teachers, and some district leaders reported that they believed that life experience, wisdom, an open mind, authenticity, and deep reflection were integral to building strong relationships, communities of inquiry, deep learning, and healthy and sustainable organizations.

Another area of tension and paradox related to social/emotional intelligence. There had been a significant focus on social/emotional intelligence and creating high levels of trust and collaboration in this system over the last ten years, but a number of participants were concerned that the system was losing this focus and priority. The system was reported to be paying less attention to the empathetic and caring aspects of leadership and education by becoming more focused on an analytical, rational, and evidence-based approach to education. A significant number of participants talked about this and referred to it as a business approach to education.

While the majority of the leaders interviewed in this study did not believe in this approach to education, they reported feeling pressured by the Ministry of Education and some areas of the district to change their underlying values, beliefs and behaviours in this area. There was the perception that they should pay less attention to the social-emotional needs of staff and students. These areas were viewed as the soft stuff and not valued to the same degree.

At the time this research study was conducted, there were some major transitions and changes going on in this school district. The Director had officially informed the system he was retiring, and a number of the participants had either decided to retire or were in the process of making this important decision. These shifts may reflect some of the changes that participants described related to their inner feelings of loss, concern, and uncertainty about the future. Some
participants reported feeling pressured to retire due to age and pressured to encourage younger people to take on leadership positions. There were tensions caused by a lack of coherence with the deeper values that they held about learning and education, and pressures related to new initiatives and priorities of the Ministry. A small number of participants said this made them feel drained and tired.

**Differentiation and Integration**

In human social systems there are ongoing tensions and paradoxes between differentiation and integration (Beck & Cowan, 1996; Csikszentmihalyi, 1997; Siegel, 2010). Both are required for ongoing health, well-being, and sustainability. For example, even as we develop a highly collaborative community of leaders working together, we still need to continue to develop our inner strengths, capacities, and diversities. We need to know ourselves and continue to do the inner work required for us to fully differentiate as individuals. We then need to use these strengths to give back to the whole. In the schools that were more appreciative of diversity and differences, teachers described how they reached out to their colleagues to try to encourage them to participate and be involved in leadership and learning. Some teachers interviewed spoke of finding ways to bring people into the circle of engagement. In these collaborative learning environments, the teachers and principals talked about how they felt compassion and empathy for their colleagues who they believed were feeling separated and isolated from the whole. The people would reach out and try to build relationships with their colleagues and invite them to come and contribute in their own diverse way to the whole. In these schools, participants had come to see that people were very different and that this is what made the community alive, vital, and dynamic. They honored and respected such differences.

In the schools that were functioning at Level 2, some teachers said that they felt isolated; they did not feel they fit in or were welcome. Some of these teachers felt they were different in some unique way and were being excluded from the community. They reported how they had actively tried to fit into the community and culture, but unfortunately the community was tightly connected, had very similar values and worldviews and was not open to people with diverse worldviews. The perception was that the homogenous community kept them out and was treating them unjustly. In these schools, there were cliques that kept people divided and the school did not function as a whole community. These cliques seemed to use their social groupings to create
their own power and control and to work against other small groups that also held power and control. This is similar to what occurs in tribes, political circles, different religions, and groupings of different sorts (Beck & Cowan, 1996; Myss, 2004; Vanier, 2008).

Some participants reported that in Level 2 schools they believed that the leaders were insecure and unable to give up external power and control. Those formal leaders kept people divided and fragmented, creating barriers to openness, vulnerability, and honesty. The perception was that this gave leaders more power and control. Participants reported that some leaders acted superior and remained aloof. In some cases the leaders created more rule-based, routinized procedures, which allowed them to build barriers to others and be seen as the expert and maintain ultimate authority (Torbert, 2004). In some cases the leaders would create environments where only certain ways of learning and thinking were accepted and valued. In many cases, they asserted a worldview that only quantitative and rational evidence was acceptable. They were not willing to discuss diverse worldviews, underlying assumptions, or values (Torbert, 2004).

A number of elementary principals explained that the elementary system exhibited a compliance mindset (Spencer, 2004). These principals used this terminology and explained in the interview that they were compliant as a system. They reported that they were aware that this was very different from the secondary panel which they said was much more autonomous, flexible, and characterized by working together to make decisions and support each other in a more interdependent team manner. The elementary principals explained that the secondary panel was able to disagree with each other and with their senior leaders. This meant putting issues on the table to discuss, and in some cases, not agreeing to do things in which people did not believe. These elementary principals reported that they wanted a more open environment where they could talk, network, disagree, and interrelate with their peers.

The level of differentiation and integration in the system varied at the school and organizational level. The tensions between efforts to value differences while creating cohesive teams and networks was evident through many of the participants’ comments, and the long term health and sustainability of the system relies on increasing success managing these tensions.
Diverse Values in Healthy Sustainable Systems

Healthy, sustainable systems value diversity including having an appreciation of diverse values, worldviews, paradigms, and mental models which were evident across this school district. Tensions and paradoxes were also evident in the different patterns of leadership, a culture of continuous learning, and interrelatedness of work and life in this district.

The school district’s values statement included recognizing the importance of diversity and voice through supporting the broad appreciation of ideas and understandings of all and recognizing creativity and innovation.

Participants reported tensions and paradoxes between very diverse values and priorities in society in relation to health, well-being, sustainability, and education. Many of the participants explained how they saw a growing emphasis on a business approach to education with priorities placed on performance based on student success as measured by grades, achievement, and attitudes towards university. Many of the participants said they had very different values and perspectives about education. They saw the importance of having different pathways for students; having more focus on the spiritual and ecological and less focus on materialism; and developing greater focus on creativity, arts, music, and other avenues for learning and life.

Diverse values were identified as an essential underpinning of a healthy, sustainable system by many of the participants, but they also reported that there had to be an openness to these diverse opinions, ideas, voices, and worldviews. In key areas of this system there was reported to be a major emphasis shifting towards standardization, accountability, and top-down planning. In other areas of the system this pull and shift was not as dominant and it was reported that there was more balance, flexibility, and diversity in these areas. Overall, many participants reported many challenges related to continual downloading of new programs and a lack of time to reflect deeply, integrate new learning, and make deep and generative changes as required.

This school system has a very diverse collection of beliefs, values, paradigms, and worldviews. The creative tensions that exist in this system have the potential to create health, continuous learning, and sustainability for individuals and the whole, but only if these tensions are openly accepted, discussed, and appreciated.
Summary

This system was going through the normal processes of change, growth, disequilibrium, and loss. A number of participants wanted to see a more dynamic, diverse, and holistic approach that took into account the whole child, teacher, and system. Many participants were taking time to reflect on their lives and careers as educators and shared many of their feelings, beliefs, and values with the researcher. They were highly committed to education and were going through a reflective time while making major decisions.

Along with the four tensions and paradoxes discussed in this chapter, many other tensions and paradoxes work synergistically in this system. These include the emergent/curious/generative leadership patterns and systems and the top-down/planned/improvement leadership patterns and systems; the individual and the collective; opportunities to diverge and to converge; stability and change; standardization and diversification; focus on outcomes and processes; power over and power within; and collaboration and competition.

As dualities are recognized and appreciated, people become more highly conscious of how these tensions can be synergistic. This is a process by which an increased level of complexity and consciousness can lead to greater levels of health, well-being, and sustainability.

Martin (2009) helps us to see how we can hold opposing ideas in our minds at the same time and how by doing this we can create something new and more innovative than what existed before. Martin calls this integrative thinking. Smith and Lewis (2011) believe that paradox is important in organizational dynamics as it helps us to explore “how organizations can attend to competing demands simultaneously” (p. 381). They also emphasize a key point that is significant in this study. Research has found that “organizing involves collective action and the subjugation of the individual for the benefit of the whole. Yet organizing is most successful when individuals identify with the whole and contribute their most distinctive personal strengths.” (Smith & Berg, 1987 in Smith & Lewis, 2011, p. 384). This was an important tension identified in this study. How can we encourage individuals to identify with the whole, and at the same time contribute their most distinctive personal strengths? Some participants felt that there was a focus on the organization and they had to fit into the vision and goals determined by a few.
Smith and Lewis also point out that “paradoxical tensions may be nested, cascading across levels” (p. 384). This was also evident in this study as many of the leaders felt a significant tension between their worldviews and patterns of leadership, a culture of continuous learning, and interrelatedness of work and life sub-patterns and that of their supervisors or panel. Leaders at all levels need to be more highly conscious of these tensions in order to more fully appreciate the imbalances and strains felt by both individuals and organizations in ongoing, complex change. If these tensions are allowed to go on for long periods of time, and are not addressed openly and honestly, they can create significant stresses including lack of trust, lack of openness and authenticity, and an absence of value of voice. These tensions can also influence the overall health, well-being, and sustainability of individuals and the organization as a whole.

Considering carefully many of the tensions and paradoxes in living systems can help us to see how sometimes we can generate unintended consequences through lack of awareness, communication and openness in systems. As Argyris and Schön (1978) have found, often certain behaviours are espoused - such as openness, collaboration and diversity - but the behaviours-in-use are not consistent. Healthy, sustainable learning systems need to become more aware of and address these inconsistencies for long term sustainable healthy change.
CHAPTER 7: SUMMARY OF KEY FINDINGS, IMPLICATIONS AND CONTRIBUTIONS

The purpose of this study was to learn more about systems that have the potential to promote optimal health, well-being, continuous learning, and sustainability for the professional staff (teachers, principals, and district leaders) working in a large school district and for the school district as a whole. This school district was recognized for its excellence in creating environments that demonstrated continuous learning, a culture of collaboration, and new forms of emergent leadership (networks, teams, and distributed and shared leadership).

This research study recognizes that the environments that we live and work in everyday play a major role in creating and promoting our optimal health, well-being, and sustainability and our ability to continuously learn, grow, and reach our full potential.

Eight system environments were previously identified as having the potential to promote optimal health, well-being, sustainability, and continuous learning. The three most influential of these were identified through preliminary interviews with a few teachers, principals, and supervisory officers: (a) *leadership* (forms that are empowering, share power and control); (b) a *culture of continuous learning*; and (c) *interrelatedness of work and life*. These were studied in this research to determine the potential to further enhance, synergize, and complement the current capacity of the education system to reach its goals.

Meaning, purpose, and consciousness was also identified by the participants as being a significant contributor to health, well-being, continuous learning, and sustainability because it acted as a synergy point that connected all three major system environments in the experience of the participants.

A conceptual framework was developed for this current research study through a comprehensive literature review and interviews with a few key experts in systems theory, thinking, and practice. Initially, nine principles were identified as integral to this conceptual framework. These initial nine principles were used to develop the interview questions/guide and probes. Through the course of this study, these nine principles were then re-conceptualized and an additional three principles emerged from the data.
Sixty participants (5 principals and 13 teachers from 5 elementary schools; 19 teachers and 5 principals from 5 secondary schools; and 18 district leaders) were interviewed in this study. The interviews, ranging from 60 to 75 minutes in length, were tape recorded and professionally transcribed. Each participant was provided with a package of information in advance of the interview. The package included background information, a visual of the preliminary conceptual framework and the list of interview questions\(^\text{10}\). Participants were given time to reflect on these interview questions. They were also given the option to focus on one or all three of the top system environments and to choose which system environment they would like to begin with in the interview.

The majority of the participants focused on all three system environments. Overall the participants spent more of the interview time focusing and talking about System Environment 1: Leadership and System Environment 3: Interrelatedness of Work and Life. System Environment 2: a Culture of Continuous Learning received the least amount of focus and time in the interviews.

**Summary of the Major Findings**

The summary of the findings is framed by using the three major research questions and findings that emerged from these three questions. Note that leadership as a major enabler was a common finding in both Question 1 and Question 3.

**Research Question 1**

Research Question 1: Why and how do the top three most influential system environments (*leadership; a culture of continuous learning; and interrelatedness of work and life*) promote optimal health, well-being, continuous learning, and sustainability for the individual and the system as a whole?

From a systems perspective my goal was to explore *how* and *why* these top three system environments are so influential. *How* and *why* are both important questions used in inquiry to try to understand systems as a whole (Patton, 2002). Participants were able to describe in depth *how* these top three system environments influenced (positively and negatively) their individual

\(^{10}\) Please see Appendix D which consists of the full package of information sent to participants for the semi-structured interviews.
health, well-being, and sustainability and the health, well-being, and sustainability of the whole organization.

While some of the participants were able to clearly articulate why these three system environments were so influential, this focus was not as substantially articulated in the interviews. This may be related to time limitations, having to answer multiple questions, or the significant reflection and synthesis required for clearly articulating a why response. Articulating the why has the potential to expose some of the underlying values, assumptions, perceptions, and worldviews (Patton, 2002, 2011). The why can also help us to see and learn more about the Tensions and Paradoxes, and different assumptions and worldviews held by various groups within the whole system. This may have been an important area to investigate further had another round of interviews taken place.

I have organized and discussed these interview themes in depth in Chapter 5: Diverse Voices. The themes are framed in Figure 3, page 81. By way of review, they are as follows:

**System Environment 1: Leadership**  
(The Enabler)

1. Appreciation of Human Spirit and Respect for all Forms of Life  
2. Authentic Sharing of Power and Control Through Empowerment  
3. Diverse Voices and Meaningful Input into Decision-Making

**System Environment 2: Culture of Continuous Learning**

1. Diverse Ways of Knowing  
2. Embedding Learning into Ongoing Processes and Relationships  
3. Creativity, Risk Taking, Innovation, and Appreciation of Resources  
4. Learning as an Ongoing Reflective Process and Practice

**System Environment 3: Interrelatedness of Work and Life**

1. Self-Awareness - Know Yourself, Values, Worldview, and Strengths  
2. Finding Balance Through Approaches to Change and Structures  
3. Life Stages and Generational Differences  
4. Awareness and Service to the Whole: Empathy, Forgiveness, Ecological, Spiritual, and Global Well-Being  
5. Appreciation of Loss, Change, and Letting Go
The findings indicate that certain patterns of leadership, a culture of continuous learning, and interrelatedness of work and life contribute to and are more influential in creating health promoting, continuous learning, sustainable systems than others.

**Leadership as the Enabler**

Leadership was found to be the most influential system environment and was reported to be the enabler of optimal health, well-being, sustainability, and continuous deep learning for individuals and the whole organization.

Overall, the majority of the participants reported in detail that leadership patterns that are more open, emergent, creative, and self-organizing are more health promoting and sustainable and, as such, promoted their deeper learning. The major influences related to sharing of power and control; empowerment; being an authentic, caring, empathetic human being; and creating high levels of trust; creating communities and networks of deep learning and inquiry; and having a high tolerance for, and in some cases an ability to promote creative tension, learning, and change through diversity.

Most importantly, leadership needs to connect and ensure coherence of the deep meaning, purpose, and consciousness of individuals and the organization. It is this deep meaning and purpose that brings everyone together. It also connects individual meaning, purpose, calling, and diverse strengths through synergies that create a greater whole.

**Interrelatedness of Work and Life**

Interrelatedness of Work and Life was found to be the second most influential system environment overall. Individuals interviewed believed and reported that the organization could not be healthy, sustainable, and continue to learn and grow unless the individuals were well. They recognized that they as individuals were nested within the organization. They also recognized that the district was nested within the Ministry of Education, which in turn is nested within the Province of Ontario.

All five themes were integral to creating high levels of interrelatedness of work and life, and the different patterns of interrelatedness of work and life were identified and described. The themes identified under interrelatedness of work and life ranged from personal quality of life
issues to organizational issues, to areas for improvement, to broader ecological, spiritual, and global interrelatedness.

School District’s Very Strong Culture of Continuous Learning

The school district was identified as having a very strong culture of continuous learning. The majority of the participants reported that they found this culture to be health promoting and sustainable overall as individuals and for the organization as a whole. A few participants reported that continuous learning could be stress inducing when it was too prolonged, and when the area of focus for learning was not meaningful or relevant to their own personal and differentiated learning needs. Many participants reported that they believed that continuous learning and continuous improvement were not the same. They provided details as to why continuous improvement was more of a top-down, organized process that had predetermined goals and outcomes. They saw the process of continuous learning as much more open and self-organizing, using double-loop learning and feedback looping. Continuous learning was what allowed one to adapt, generate change, and attain deep learning.

Synergy Point of the Three System Environments:
Meaning, Purpose, and Consciousness

Meaning, purpose, and consciousness emerged as the synergy point of all three of these system environments. Participants explained that it was essential that there be a common and shared sense of meaning, purpose, and consciousness for both individuals and the district.

Participants who felt that they had a highly developed sense of meaning, purpose, and consciousness that was coherent with the organization’s mission, vision, and values experienced positive health, well-being, sustainability as well as the capacity to continue to learn and grow. When deep inner meaning, purpose, and values were not in coherence or agreement with the organization’s mission, vision, and values, people did not feel healthy or sustainable and were not able to thrive and grow. As a result, meaning, purpose, and consciousness acted as a key source of coherence across the diverse levels of the system.

A small number of people were experiencing a disconnect in this area and reported that this was negatively influencing their health, well-being, and capacity to grow. A few participants reported that they were feeling stressed, overwhelmed, and not able to function well because the
imposed focus was not meaningful or relevant to them, and it did not connect with their own inner values and purpose in life. This relates to Antonovsky’s health promotion concept of *sense of coherence* (Antonovsky, 1996).

**Research Question 2**

Research Question 2: What are some of the principles, patterns, relationships and synergies that are integral to promoting optimal health, well-being, continuous learning, and sustainability for the individuals and for the system as a whole?

There were nine *Principles of a Health Promoting, Continuous Learning Sustainable System* identified early in the research process. These were identified through the literature and discussions with a small number of external key informants with expertise in systems theory, thinking, and practice. Capra was the key systems expert who assisted me with this process. These nine principles were used to analyze the data using a ecological, holistic systems approach. Through this analysis, and a reflective process, these nine principles were reconceptualized and three additional principles emerged from the data. The final *12 Principles* are outlined below. Please see Figure 2 (p. 29).

**All Living Systems**

1. Open Systems Nested Within Open systems
2. Interrelatedness
3. Relationships
4. Communities, Collaboratives, and Networks
5. Diversity of Ideas, Cultures, Worldviews, and Knowledge
6. Dynamic Balance and Self-Organizing Systems
7. Flow
8. Growth, Development, and Learning

**Human Systems**

9. Emergence and Design
10. Meaning, Purpose, and Consciousness
11. Loss, Change, and Letting Go
12. Sharing Power, Control, and Empowerment
Major System Pattern and Three Sub-Patterns

One major system pattern emerged from the data. This pattern is described as increasing levels of complexity and consciousness in relation to health, well-being, and sustainability.

The major pattern of increasing complexity and consciousness revealed a spiral flow from more top-down/planned/improvement patterns, to more collaborative/adaptive patterns, to more emergent/curious/generative patterns, to more integrative/holistic/complex patterns.

As a result of my analysis of the data, I created a *Reflective Framework: Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability* (Figure 5, p. 171). I applied the framework to the three main system environments – leadership, a culture of continuous learning, and interrelatedness of work and life. The interaction of my research framework with the data led to the identification of three complex sets of related ideas and qualities that I called sub-patterns.

While many of the leaders interviewed exhibited and talked about (espoused) emergent qualities and patterns of more than one level, their responses tended to be consistent with one of the five levels of my Reflective Framework, with some exhibited qualities and patterns across two levels. This finding was important to my ability to see the patterns of health, well-being, and sustainability across the system.

With my Reflective Framework, I was able to use the data to approximate and cluster schools and leaders within the different levels based on the data. I was also able to describe the most important patterns of thought and behavior occurring at each of the five levels.

At each level, participants were experiencing a different relationship to meaning, purpose, and consciousness. Levels 3 to 5 were considered by the participants to be health promoting and sustainable. Levels 1 and 2 were not considered by the participants in this study to be health promoting or sustainable.

**Research Question 3**

Research Question 3: Is there one or possibly two system environments that might be considered to be the leverage point or enablers for significant change towards a health promoting continuous learning sustainable system?
Leadership was considered to be the major enabler of the process of creating healthy sustainable, continuous learning systems for the individuals and the district.

Participants reported that certain patterns of leadership were essential for promoting individual and organizational health, well-being, and sustainability. These leadership patterns exhibit qualities of openness, empathy, flexibility, responsiveness, and have many of the qualities of authentic, honest, and genuine human beings. This type of leadership also includes being able to listen deeply and create a space for diverse perspectives.

Findings from this study indicate that at the district level there was a diversity of leadership approaches and values. The district leadership team drew on these diverse approaches and values to create different patterns ranging from a top-down/planned/improvement leadership pattern (Level 2), to a collaborative/adaptive pattern (Level 3), to an emergent/curious/generative pattern of leadership (Level 4), with some leaders moving to an integrative/holistic/complex pattern (Level 5). This variety created very different philosophies and patterns at other levels of the system as well. From a school perspective, there were different patterns of leadership in the elementary and the secondary systems. Elementary could be found to be exhibiting and promoting Levels 2 to 3 leadership, a culture of continuous learning and interrelatedness of work and life patterns while secondary was found to be exhibiting and promoting Levels 3 to 4.

Contributions of This Research Study

This study makes substantial contributions to the knowledge base. The insights further develop an appreciation for and understanding of health, well-being, and sustainability. Health is often thought of in a narrow sense and defined by the biomedical model of health as the absence of disease or disorder. In this study, health is understood more broadly in terms of an ecological, holistic systems approach.

This research study makes five substantial contributions through:

- drawing on an ecological, holistic systems approach to health, well-being, and sustainability;
- using a systems approach to research design and methodology;
- using three knowledge lenses to draw on the literature across diverse fields;
• identifying *12 Principles of a Health Promoting, Continuous Learning, Sustainable System*; and

• developing a *Reflective Framework: Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability*.

**An Ecological, Holistic Systems Approach to Health, Well-Being, and Sustainability**

Consistent with the *Ottawa Charter for Health Promotion*, this study utilized an ecological, holistic systems approach to health, well-being, and sustainability. It identified the importance of environments supportive of health, starting with the inextricable links between people and their environment as the basis for a socio-ecological approach to health (WHO, 1986).

The ecological, holistic systems approach to health reflects the multidirectional complexity and dynamic interplay among factors operating within and across respective levels from macro (societal/global) through micro (individual). The ecological, holistic systems approach to health used in this study also recognizes the interwoven relationship existing between the individual and their environments. While individuals can play an active role in promoting their own health and well-being, it is important to recognize that individuals are nested within larger settings or systems of life. They are influenced significantly by their work environments, colleagues, family, communities, and the broader political, social, economic, and environmental forces and influences in society. As was noted in this study, it is essential to consider all of these major influences and to address a combination of these levels when trying to create optimal health, well-being, and sustainability of individuals and organizations.

We begin to see that health is a complex, interrelated capacity-building process of healthy, dynamic relationships that balance a sense of meaning, purpose, and consciousness, created in everyday environments where people *live, work, play and love* (WHO, 1986).

We can see that health, well-being, and sustainability can be viewed as physical, social, emotional, intellectual (learning), spiritual, ecological, and global in nature.

When participants in this study talked about health, well-being, and sustainability they referred to becoming more self-aware and highly conscious; feeling fully alive; paying attention
to dynamic balance, resilience, and renewal; and working towards deeper meaning and purpose in their lives. They described experiencing a sense of flow and openness; appreciating diversity and interrelatedness; an emergence of empathy; and an increasing awareness of spiritual, ecological, and global well-being.

This approach to understanding health, well-being, and sustainability provides a much deeper and broader appreciation of the complexities and consciousness of living systems. Through this appreciation individuals can begin to reflect on how they are integral to a larger system involving families, communities, organizations, and the planet. They can also begin to see how they are creating and co-creating this reality together in their ongoing relationships, their structures (formal and informal), their values, worldviews, leadership, and learning environments. They are creating meaning, purpose, and consciousness together and they are experiencing the way that increased levels of complexity and consciousness contribute to health, well-being, and sustainability.

This approach to examining and understanding health, well-being, and sustainability is an important contribution to the field because it advocates for an overall effort to embrace and understand the complexity and interrelatedness of a multitude of influences and forces. It also allows for the critical tension between exploring the broad relationship of big picture systems from the political, economic, environmental, and cultural contexts and more specific issues that arise at the individual and organizational levels.

**Systems Approach to Research Design and Methodology**

The approach used in this study reflects a unique research design and methodology. In designing this study I tried to emulate and integrate many of the values and practices of an ecological, holistic systems approach including honoring and listening to the diverse voices of the participants; utilizing double-loop learning and iterative feedback looping with internal and external key informants; and using reflection as an ongoing learning process. This involved moving back and forth between a big picture systems approach involving synthesis and pattern seeking, and a more detailed thematic analysis of the system environments.

In my design, I consulted with external key informants with expertise in systems thinking, leadership, and change. I appreciate their willingness to share their life experience and knowledge with me throughout this research process. I also conducted semi-structured interviews
with 60 participants across this living system and appreciate the thoughtful reflection, time, and insights they contributed. I have tried to honour their diverse voices in Chapter 5. I also returned to talk with a number of internal key participants from within the school district to discuss my findings and, in particular, the patterns. I wanted to ensure that I understood the broader contextual perspectives and history so I could properly frame the findings. In this way, I tried to ensure I valued, honoured, and was open to diverse perspectives.

During this study, I integrated my own reflective meditation practice into the research process. This was a very important part of my learning. This involved integrating mindfulness meditation and prayer into my daily practices and participating in ongoing training in mindfulness, retreats in Assisi Italy, and connecting with professors, researchers, and practitioners who are embedding these practices into their work and life.

This research process allowed me the opportunity to tap into key experts across a number of disciplines with expertise and lifelong experience in understanding complex living systems - health promoting systems, learning systems, and living sustainable systems. It also offered me the opportunity to examine the first person subjective/lived experiences of 60 participants in this school district. Using my conceptual framework, especially the 12 Principles, I created a Reflective Framework. This will be a helpful tool for further discussion and reflection by the participants in this study, the organization/school district, and any other organizations that would like to use this framework as part of their own reflective learning.

This unique systems approach to research design and methodology offers dimensions not identified in the literature and creates new ways of approaching the study of health, well-being, and sustainability.

**Use of Three Knowledge Lenses Drawing on Literature Across Diverse Fields**

I utilized three knowledge lenses in my conceptual framework – health promoting systems, continuous learning systems, and living sustainable systems. These were used to identify the most important and relevant literature and research across diverse fields that helped to frame this study and to explain some of the findings. They also shed light on qualities of complex systems, living systems, and health promoting systems as they relate to health, well-being, and sustainability.
By using a holistic approach to the literature and reaching across a number of diverse fields, I was able to begin to see similar principles and patterns emerging from the research and the data. I drew on literature and research from many fields such as health promotion, educational change, ecology, systems thinking and change, and organizational and systems change. I also drew on the literature on organizational learning, learning organizations, leadership and community development, sustainable development, adult education, and well-being. The value of interrelated areas of knowledge in the study of living systems comes from the idea that “emergent properties cannot be predicted simply from knowledge of the component parts” (Dahl, 2010, p. 1).

**Identification of 12 Principles of a Health Promoting, Continuous Learning, Sustainable System**

Initially, I identified nine principles that were embedded in my conceptual framework. These were used to design the qualitative interview questions to address the three system environments.

Through examination of the data, the literature review, and interviews with external key experts, these nine principles were re-conceptualized and three additional principles emerged from the data. This led to an in-depth understanding of how these principles can help us learn more about and understand the underlying essence of health promoting, continuous learning, sustainable systems. All of the 12 Principles are relevant to all human social systems; the first eight are relevant to all living systems.

These 12 Principles can be used to study human social systems further and to inform how we create large scale systems change. One of the principles that came out very strongly in this particular study was *Principle 11: Loss, Change, and Letting Go*. While this principle is relevant to all human living systems, this school district seemed to be experiencing and undergoing significant loss and change processes. Loss and change are also associated with creativity, innovation, and change. This organization also exhibited many of these qualities and conditions.

*Principle 10: Meaning, Purpose, and Consciousness* came out very strongly as the synergy point that participants reported as *holding the system together or creating a sense of coherence in the system* – for individuals and the organization. We can see how important meaning, purpose, and consciousness is to all living human systems and how this must be
addressed from both an individual and an organizational perspective in order to create healthy sustainable people and organizations.

*Principle 9: Emergence and Design* came out very strongly as an underpinning of the tensions and paradoxes. This system was experiencing at least two very different worldviews in its leadership approach. This was creating significant tension between the top-down/planned/improvement approach to systems change and a more adaptive/collaborative and emergent/curious/generative approach to systems change in this school district.

Through *Principle 9: Emergence and Design*, I became more highly conscious of the dynamic balance between stability and innovation. As we move to a greater appreciation of how to design open systems and develop the capacity to facilitate emergence, we can learn how to create healthier and more sustainable generative organizations that promote health and sustainability for all.

All 12 Principles can be used to study and examine organizations of all types – business, health, education, community, and at many different levels of society.

**Findings Specific to the 12 Principles**

Through a systems approach, I saw different areas of the system exhibiting very different levels of the 12 Principles, particularly *Principle 1: Open Systems Nested Within Open Systems; Principle 3: Relationships; and Principle 12: Sharing Power, Control, and Empowerment*. These variations in the principles contributed to more or less capacity in the system for dynamic balance, self-organization, openness, and deep double-loop learning. Several examples of these findings follow.

Leadership emerged as the major enabler in promoting optimal health, well-being, and sustainability.

Under *System Environment 1: Leadership*, the role of the supervisor was identified as having a major influence on the health, well-being, and sustainability of individuals and the system. Where participants were nested within this system, and who their supervisor was, were critical contributing factors to both individual and organizational health, well-being, and sustainability.
In examining the data from the interviews at the senior management levels, it was evident that there were diverse philosophies, worldviews, and values in relation to leadership, the role of education, and how human systems need to work and function. There were also diverse worldviews and values about the importance and complexity of health, well-being, and sustainability of individuals, organizations, and society. The leadership patterns that emerged at the district level ranged from very tight and organized approaches to more integrative, holistic systems approaches that tapped into all worldviews and integrated the spiritual, ecological, and global aspects of health, well-being, and sustainability.

A senior leader summed this up nicely.

We have very different types of leadership and different types of working styles. When they come into conflict, it is huge. I mean you take the autocratic leader and the person who has a high level of need for…collaborative leadership – that’s bad news. I think as an organization, we tend to be more collaborative…. I think the greatest challenge is, as a senior team, we are as different as chalk and cheese. Our Director is very comfortable with that. We all have a common purpose but we are all very different people, yet we work together. (DL 18, District Leader)

This diversity was foundational and revealed several major tensions and paradoxes in the system.

Another significant finding in the data was revealed through Principle 11: Loss, Change, and Letting Go. At the time this study was conducted, there were a number of system leaders that had decided to retire or leave the system. This was creating significant change and turbulence. Some participants reported that they were concerned that the school district was going to become more planned and aligned with very little openness, creativity, emergence, and wholeness. In other areas of the system, participants anticipated the loss and changes that might occur, but saw opportunities that might allow them and the organization to continue to grow.

This principle of Loss, Change, and Letting Go came out strongly in the data in relation to personal issues as well. A few participants were making decisions about whether or not they wanted to continue to work in this system and a number of them reported that the system’s values were no longer satisfying their deep purpose, needs and passions.

Many participants reported that they wanted the district and Ministry to address their personal health, well-being, and sustainability, since this school district was nested within the
broader Ministry of Education and society as a whole. As such, they felt that there needed to be a commitment to health and well-being of staff at a senior leadership and ministry level. They wanted to see more resources, a champion, and a major focus on health, well-being, and sustainability of the professional staff and students. This pattern was also significantly related to Principle 2: Interrelatedness, Principle 6: Dynamic Balance, and Principle 7: Flow.

In relation to Principle 6: Dynamic Balance, the participants reported that the capacity to self-regulate and self-organize was essential to healthy sustainable systems. Participants explained why ongoing open and honest feedback loops; opportunities for resilience and renewal; and opportunities to balance their work and personal life were so important to their overall sustainability and well-being. They were also noticing this in the larger system where younger principals were struggling and people were becoming drained and overworked. Many of the more mature principals were trying to support the newer younger principals. This was occurring in the elementary system in particular. Many of the principals and teachers in both elementary and secondary had ideas about how to rejuvenate and renew the system in key areas. In this area, Principle 1: Open Systems Nested Within Open Systems; Principle 4: Communities, Collaboratives, and Networks; Principle 8: Growth, Development, and Learning; Principle 9: Emergence and Design; and Principle 12: Sharing Power, Control, and Empowerment were significant.

Developing healthy relationships of high trust, honesty, and authenticity was identified as critical. People reported that they wanted to be able to move into learning patterns where they could question the status quo, be more creative, think critically, and develop integrative and systems thinking patterns and capacities. They were learning how to be more flexible, deal with ambiguity and complexity. Here Principle 3: Relationships resonated.

All of the 12 Principles manifested through people’s experiences of health, well-being, and sustainability. The data illustrates how the principles of health promoting continuous learning sustainable systems are helpful in understanding systems (individuals and organizations). Principle 10: Meaning, Purpose, and Consciousness was identified as the synergy point of the top three system environments. Different levels of complexity and consciousness were also starting to become very evident.
Development of a Reflective Framework: Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability

Many of the participants reminded me how important it was to reflect deeply and learn, to be self-aware and conscious, and to listen to your own inner spirit and soul. They said we need to listen to our own inner wisdom and other diverse ways of knowing. They talked about the importance of taking time to do this important inner work. One participant reported that the interview process itself was “like therapy for my soul” (DL 7, District Leader). People wanted to have time to reflect deeply, review their values, and have time to make generative changes that may be required in double and triple-loop learning processes.

During my research and learning process, I participated in a deep reflective process myself and this process led me to realize that it would be helpful to create a Reflective Framework (p. 171) that might assist with this study and future reflective processes related to health, continuous learning, and sustainability.

The Reflective Framework recognizes that diverse system environments are occurring simultaneously and synergistically at many levels and cannot be divided out and fragmented. The different levels also help us to see how individuals and collectives are trying to promote health. By becoming more conscious of these different levels, people can decide what important aspects they want to focus on and create.

What are the benefits of a top-down/planned/improvement change process? A collaborative/adaptive approach to systems change? An emergent/curious/generative approach to learning? What type of system environment is most helpful at a certain stage of development in the organization? Can we tap into more than one system environment at the same time and increase the synergy of the whole? Can a system environment get out of balance and take away the energy or synergy from the whole?

I have developed a detailed description and links to the literature with reflective questions that go with the Reflective Framework. These will be developed further and may be used to design future studies.

This Reflective Framework can be used by individuals and collectives to think about where they are in terms of their ongoing growth and development in relation to increasing complexity and consciousness of health, well-being, and sustainability. It can also be used to
better understand the different sub-patterns of leadership, a culture of continuous learning, and interrelatedness of work and life that can contribute to health, well-being, and sustainability of individuals and the organization.

**Implications and Recommendations**

The findings in this study inform researchers, academics, policy makers, health promoters, and educators about how we can continue to encourage and promote a deep systems change process towards healthier, more sustainable, continuous learning systems. These systems include individuals, organizations, communities, cities, countries, ecosystems, and the planet.

In this particular research study I focused on learning more about the underlying principles and synergies of one large school district and how these principles contribute to creating health promoting, continuous learning, sustainable systems.

As is consistent with the overall ecological, holistic systems approach, change occurs at many levels synergistically. As the *butterfly effect* has taught us, we cannot predict the impact of small changes at the individual or community levels as these may actually create emergence at diverse system levels. Change can occur on an individual basis, inside the individual, in groups and collectives; and it can also be created through social change and transformation of collectives and society.

I would like to recommend a number of different strategies for consideration at a number of levels of the system that may synergistically contribute to creating a health promoting, continuous learning, sustainable education system in Ontario and beyond.

These recommendations seem to be the next steps that can build on the findings of this study. I have organized these strategies around three major audiences: (a) Policy and Governance; (b) Practitioners; and (c) Academics and Researchers.

**Policy and Governance**

Those involved in policy and governance areas could consider engaging in initiatives which would contribute to local, regional, provincial, and potentially national and international change efforts.
1. Use the Reflective Framework to contribute to the vision for education in Ontario which links health, well-being, and sustainability with student achievement.

The Reflective Framework coming out of this research study could be used to help design a larger scale plan and strategy for embedding health, well-being, and sustainability into the education vision and strategy for Ontario. This would involve evaluating the current structures and priorities at various levels of the system and trying to identify areas for the greatest influence in systems change.

This Framework would be a helpful way to expand our thinking and strategies to fully embed health, well-being, and sustainability into the overall policies, programs and governance and then ultimately into the local school districts, communities, municipalities, and beyond.

This dialogue could be facilitated through a public forum at the provincial level. It would involve diverse stakeholders from across the education system as well as other key stakeholders that are working closely together or need to work with the education system. This may include tapping into local and provincial healthy and sustainable community coalitions and resources, university and research communities, as well as municipal and regional planning, social services, and public health.

This process may also be expanded as appropriate to tap into the national and international healthy sustainable schools/communities/workplace movement, research and resources.

Examples of the application of my framework include the following: At level 3, we can ask how education systems can begin to integrate greater collaboration and networking into the organization and broader partnerships?

At Level 4, policy-makers could begin to plan and create strategies for introducing a more extensive focus on learning organizations. This could include developing programs and resources to promote critical thinking, creative thinking, entrepreneurship, greater access to experiential learning, international learning opportunities, online local and international networks of inquiry and learning, and other diverse ways of learning. This level would also build stronger relationships with universities and begin to develop international partnership, which leads into Level 5 of my Reflective Framework.
At Level 5 the Ministry of Education could work more collaboratively across ministries and departments to link student achievement with health, well-being, and sustainability of students, staff, communities, and the ecological environment.

**Practitioners**

The term practitioner refers to school districts and various educational stakeholders at the local level including directors of education, superintendents, principals and teachers.

As a context to understanding these recommendations, it is interesting to note that since I conducted my research, the school district I worked with has already begun to design and implement new approaches and a framework for creating a healthy school and workplace culture. These efforts are an example of the ways that research and practice can integrate to inspire growth of individuals and collectives.

1. **Use the Reflective Framework to guide dialogue within school districts.**

   The Reflective Framework would provide a foundation for conversation, dialogue, and increasing awareness in the area of health, well-being, and sustainability. This Reflective Framework could be used on an ongoing basis as a reflective tool in conjunction with many other reflective processes. It could also be adapted and changed based on the input of participants over time. The reflective process would help diverse stakeholders understand and expand their appreciation of many diverse aspects of health, well-being, and sustainability and what can be accomplished at different levels of the education system.

2. **Research and develop indicators of health, well-being, and sustainability at the individual and organizational levels.**

   Teachers, principals, district, and community leaders could be involved in identifying indicators of health, well-being, and sustainability at a local or regional level based on what is meaningful to them in their work. These indicators could be integrated with the existing indicators that measure student achievement.

   Many of the participants in this study suggested that we need to come up with different ways of measuring what is important involving both qualitative and quantitative indicators; determining where we want to go together; and ensuring diverse ways of assessing and monitoring our progress. At the same time, we could look at different patterns of leadership, how
advanced the culture of continuous learning has become, and specific indicators related to interrelatedness of work and life.

It is widely recognized that providing stability and ensuring accountability indicators and resources are in place are very important, but there are many questions that need to be answered if we are to successfully develop indicators of health, well-being, and sustainability. How can we begin to see health in a broad way – as a process that we are creating together as a society? What might the evaluation indicators of a more open, creative, flexible system be? How can we create indicators and conditions that promote both the stability of design and the emergence of creativity and innovation in our schools and school districts? How can we support the system to become healthier and more sustainable? How can we move from Level 3 to 4 and beyond? How might the Ministry of Education support these system developments?

3. **Action research project linking local areas, universities and government with a focus on health, well-being, and sustainability of teachers, principals, and district leaders in Ontario’s school system.**

   In this research study teachers, principals, and district leaders expressed a strong interest in developing an ongoing action research project. This would be a grass-roots research study that would involve educators at many levels who are interested in thinking about and implementing some new initiatives in their schools in the area of health, well-being, and sustainability.

   As part of this action research project, they would create a network where they could share new models, ideas, practical suggestions, and continuous learning in this area. This might also involve some provincial workshops, training sessions, and opportunities to network and learn through online learning and technology. By creating an online network, teachers, principals, and district leaders could learn from each other, share best practices, and develop a learning community across the province and beyond.

**Academics and Researchers**

The following are a number of research studies that can build on this current research in school districts. I have included five possible studies numbered below as 1 to 5. There are also recommendations for a university course and partnership, numbered 6 and 7 respectively.
1. **Research study to examine and learn more about emergent/curious school and district environments.**

   The school district involved in this study could benefit from connecting this research to student achievement and well-being. I did not look at these interrelationships in this study. It would be very interesting to take the findings from this research study, particularly in relation to leadership, and develop another study to find out specifically how the collaborative and emergent leadership patterns contribute to health, well-being, and sustainability of professionals and the district in relation to student achievement.

   It would be especially interesting to identify and study specific elementary and secondary schools that are recognized for being more open, collaborative, emergent, and exhibiting many of the principles that have been identified in this study. A research study could then be designed to find out more about how the leadership is able to facilitate a more open, collaborative leadership and learning process. What is it about the leadership that promotes this highly creative and emergent pattern of leadership, a culture of continuous learning, and interrelatedness of work and life? Does this leadership also create environments that have high levels of student achievement?

2. **Research study on the influence of nesting on leadership, learning, and interrelatedness patterns.**

   The influence of nesting on leadership patterns would be another fruitful line of inquiry. What is the influence of the supervisor’s leadership pattern (related to complexity and consciousness) on the growth capacity of the individuals and the collectives nested under this supervisor? If leaders are nested under a supervisor who does not fully appreciate complexity and consciousness or diverse gifts and ways of knowing, does this have a negative influence on the ability or capacity of their employees to continue to grow and develop to their potential?

   As the leadership moves to higher levels of complexity and consciousness of health, well-being, and sustainability, do leaders feel a sense of greater control and influence over their work and life? Do they feel healthier and more resilient? Are they better able to reach their goals and be adaptive and generative on a continuous basis? How can we be more open to these diversities and worldviews and use this creative tension to create healthier, more sustainable education systems that continue to learn and grow?
This study might also look at and examine the influence of provincial governments on the capacity of districts and schools to move from standardization and accountability approaches to more collaborative and emergent approaches to systems change.

3. **Research study to examine the tensions between a structured, top-down approach to systems change and a more open, emergent approach to change.**

   One of the major findings in this study is that there is a creative tension and synergy created when diverse approaches come together. There would be value in learning more about how this creative tension works to create ongoing growth and development as well as some of the challenges and opportunities associated with this tension.

   How do we create a system that is able to balance both accountability frameworks and structures and more open creative emergent environments that promote creativity and risk taking? How can we create a space that allows all of these diverse tensions to co-exist and at the same time continues to be reflective and open to ongoing change and growth? How can we learn to tap into this emergent environment for ongoing growth and development of the whole person and the whole collective? Does this creative tension play a significant role in sustainability?

4. **Research study and practice of integrative and systems thinking.**

   A study that examines the influence of integrative and systems thinking in educational environments (schools, school districts) could also be conducted. Some of this work is already being done by Roger Martin at the Rotman School of Business, University of Toronto. Martin’s model is specifically focusing on developing integrative thinking. It would be useful to find out more about how people can learn to use systems thinking approaches and creative thinking. The study would examine the tensions and opportunities between analysis, synthesis, and holistic systems thinking approaches and practices. It would build on and examine various diverse systems thinking models, approaches, tools, and curriculum and could draw on some of these diverse materials and further examine this important area.

5. **A research study using the principles of a health promoting, continuous learning sustainable system.**

   A research study could be carried out in another school district to further explore the *12 Principles of Health Promoting, Continuous Learning, Sustainable Systems* as identified in
this study. It could be helpful to find out how effective they are in understanding another school district as a living system.

Are other systems going through experiences similar to the school district in this study? If so how? If not, how is the process or experience different? Is there a larger context for change that is the same or different? Are they nested in different environments? What principles are most important? Are there any new principles emerging?

6. **Development of a university course for graduate students focusing on an ecological, holistic systems approach to health, well-being, and sustainability.**

This study reveals the rich practical and theoretical potential of this area. An educational course for graduate students in university could be developed that would integrate and embed many of these important concepts and some practical tools into the curriculum. This course would focus on understanding complex adaptive systems, living systems, systems thinking, and change. It could also link to leadership development and work that is currently underway in looking at how education systems can become more creative and entrepreneurial. It would also begin to help educators apply critical thinking, creative thinking, systems thinking, and integrative thinking, while expanding their appreciation of systems change processes.

This course would focus on an ecological, holistic, systems approach to health, well-being, and sustainability, and it would ideally be multidisciplinary in nature through participation by educators, health promotion professionals, ecologists, biologists, public health professionals, to name a few. It could also utilize the Reflective Framework coming out of this research. Through such a course, learners could explore the complexities of health, well-being, and sustainability of organizations, communities and our planet. For educators, in particular, this would be an opportunity to explore the links between various aspects of curriculum, theory and policy, adult education, and systems change.

7. **Develop key partnerships across diverse sectors – locally, provincially, nationally, and internationally.**

Many of the participants in this study wanted to see the development of greater collaboration and partnership at many levels of the education system. They talked about the need to develop better relationships and partnerships with unions and with key educational organization such as the Pan-Canadian Ministers of Education by sharing knowledge across
provinces and internationally. Many of the participants were involved in international leadership and teaching opportunities and also wanted these partnerships to be linked to appropriate universities and research centres. Through an open dialogue facilitated through the university sector we could find the most appropriate venue and forums for developing local, provincial, and international networks and partnerships.

**My Reflections as a Researcher**

I would like to begin with a collection of particular insights that came to me during this process before offering a brief summary of the essential learning I experienced.

Trying to examine living systems is complex. I like to inquire, take time to reflect, and discuss diverse opinions and ideas while conducting my research using a systems approach, which is by nature more iterative than linear.

I am an integrative systems thinker. I like to hold diverse ideas together across a number of fields and disciplines and try to create something new. This is what Roger Martin calls *The Opposable Mind (2009)*. Part of this is a product of my ontology and broad academic background. The most difficult but rewarding aspect of the process, was the final process of holding all of the diverse findings together in my mind and writing the final thesis.

At the heart of my approach is a deep respect and enthusiasm for life that comes from my spirit and soul. It also reflects out and creates a spiritual, ecological, and global perspective on my work and interests. I am deeply committed to an ecological, holistic, systems approach to my research and have a passion for promoting optimal health, well-being, and sustainability at the individual, organizational, community and global/planetary levels. We will see where this takes me in the next stage of my life.

In reflecting on my process I came to see how essential it was to have access to a number of diverse people with expertise and knowledge in systems theory, thinking, and practice. These experts came from diverse fields and brought different ideas and perspectives on systems.

These discussions with national and international system experts were invaluable as I was able to draw on their diverse expertise and experience as researchers and thinkers. Having such dynamic contacts was crucial for my comprehensive learning and reflection – and in a sense, they became part of my *team approach*. My supervisor and committee members were also
integral to this team approach. They brought their expertise in education systems which really helped me to understand the context of education. This was essential as the research was being carried out in a large school district. There were cultures of distributed leadership and collaboration and certain terminology and theories with which I was not familiar. Through my doctoral program I enjoyed learning about these and gained a much deeper understanding of many of these important theories and concepts particularly related to distributed leadership, a culture of collaboration, continuous learning, and sustainability.

I also found that a systems approach meant very different things to different theorists, researchers, and practitioners. Some system thinkers and researchers talked about using a systems approach and they described this as being about alignment or cybernetic systems while others are more focused on participation and collaboration. There were also some systems thinkers whose approach had a business and outcome based orientation. These very different understandings and approaches require consideration on the part of a researcher before really constructive work can begin. I had to learn about these diverse views of systems approaches and determine which ones worked with my ontology and which ones were more closely connected to the values and orientation of a health promoting, continuous learning, sustainable system.

A study by Keshavarz, Nutbeam, Rowling and Khavarpour (2010) entitled *Schools as social complex adaptive systems: A new way to understand the challenges of introducing the health promoting schools concept* identified 10 characteristics of complex adaptive systems. This study had some similarities and differences from my research study. Keshavarz et al’s inquiry took a complex adaptive systems approach and drew on complexity theory. The study, however, did not draw on all of the three lenses that I used in my study: health promoting systems, continuous learning systems, and in particular, living sustainable systems.

Some of the 10 characteristics of social complex adaptive systems that were identified in their study were congruent with a number of the principles in my study, although their study did not identify characteristics or principles related to living sustainable systems (e.g., Principle 10: Meaning, Purpose, and Consciousness and Principle 11: Loss, Change, and Letting Go). While they identified emergence as a characteristic, they did not discuss the important relationships between emergence and design in human social systems. The study identified diversity with a focus on how diversity had unfavorable consequences in schools, making it difficult for rules to emerge within the systems. In my study diversity is viewed as a strength and emergent quality of
healthy sustainable systems that are able to think deeply, question the status quo, and create transformative change. Their findings talked about adaptation but there was little discussion of generative processes related to leadership and learning which thrive in more diverse environments.

I believe the Tensions and Paradoxes and the Reflective Framework generated in my study provide us with both theoretical and practical means for further investigating systems and may take us to the next level of understanding in this area.

Through my ecological, holistic systems approach to the data I was able to see the principles of a health promoting, continuous learning, sustainable system come alive. For example, senior leaders often thought the people in the system were really clear with respect to the mission, vision, and values. After speaking with 60 highly professional, well-educated, and wise individuals, I learned that this was not necessarily the case. The importance of truly knowing yourself and the organization of which you are a part emerged as a significant learning for me. I could see the tensions and paradoxes created by various levels of complexity and consciousness and how these differences created conflict that, when held together in an open space, had the potential to create synergy and emergence if awareness was a focus for all involved.

In this analysis and discussion, I also came to more fully recognize how important it is to be open and non judgmental while maintaining my own unique values and worldview. In my ontology I explained that I have a passion for creativity, openness, generativity, and self-reflection. These qualities led me to see how important it is to create space for creative tension in order to balance the needs of many diverse individuals and their search for inner purpose in life while at the same time valuing and promoting the collective and shared meaning and purpose of the organization as a whole.

Through this process I came to recognize that I do have a very optimistic view of the world and the potential for large scale, deep, transformational change. I have had this optimistic perspective all of my life even though I have gone through significant losses and changes on a personal and professional basis. This may have been instrumental in developing my resilience and capacity to continue to want to grow and work with others to create a better world.
This study did pose a number of challenges for me as a researcher and as an individual. I recognized that I do like to work in a team environment and have done this in conducting many of my major initiatives, projects, and evaluation studies. In this study, I reached out to try to create a network of professionals and researchers who were working in a similar area. This worked well and I feel this is very important and a necessary aspect of systems thinking and research. Working across disciplines also poses many challenges. I myself have spent many years working as a nurse, an educator, a community planner, a senior manager in public health and have completed undergraduate degrees in nursing and education and graduate degrees in environmental studies and business administration. I still found it challenging to describe and discuss this systems perspective which is very holistic in nature and not easily described in a linear writing process. In a meeting with Fritjof Capra he advised me that it would be very difficult to describe this holistic systems perspective in a linear manner. My supervisor also had said that it would be like “learning a new language” and trying to describe this to other people. This was definitely a challenge in this work and I have developed an extensive glossary of new terms and concepts through this process. I will still need to continue to work to make these complex concepts easier to explain. Overall this has been challenging but I feel that it has been very rewarding and I appreciate the support and advice from so many other professionals and systems thinkers working in this new area of complex systems.

This overall learning and research process was very time consuming and required significant contemplation, reflection, and mindfulness. I will continue to develop this discipline in my life and find ways to utilize it in my teaching and research practices.

Health, well-being, and sustainability is about dynamic balance and involves a complex process that goes on continuously in systems (individuals, organizations, society, planet) as attempts are made to integrate and differentiate through increasing complexity and consciousness. It is important to consider how we as a society come to an increasing awareness of health, well-being, and sustainability involving a deeper respect for all of life.

How can we fully embed and integrate the values and worldviews of a healthy sustainable system into the fabric and culture of organizations such as the education system? How can we take this learning to the next level at the district and governance levels and in the university and research sectors? How can we begin to think about the big picture aspects of health, well-being, and sustainability? How can we create a more holistic and diverse
appreciation and understanding of curriculum, policies, and programs that address eco-schools, healthy schools, safe schools, equity, social justice, peace, and enrichment of life? How can we begin to see that these are all integral to the whole – a healthy sustainable society? How can we begin to discuss this larger vision in our school systems and our society?

At the time that I began the research for this doctoral thesis, the Director of Education and some other senior district leaders were in the process of retiring. These changes were reported to be causing disequilibrium, loss, and change in the system. At the same time many people were looking forward to opportunities and wondering what might happen in the next stage of development of this organization.

Over the last four years while I was completing my thesis a new Director of Education and a number of new senior leaders were appointed. With these changes came the development of a new framework focusing on workplace and learning environments. It would be very interesting to go back and use my Reflective Framework to discuss various aspects of systems change, health, well-being, and sustainability over the last few years.

Complex system change comes with tensions and paradoxes. How organizations approach these is foundational from the perspective of a health promoting, continuous learning, sustainable system.

It is fitting that my particular reflections end with a series of questions. The central learning that I take away from this study is that human social systems must be characterized by openness, dialogue, and learning. This study has taught me that there is enormous value in a systems approach and that only through reflection and shared learning can the complexity and consciousness of our living systems grow. It has also underscored for me that the human need for meaning, purpose, and consciousness is central and is both the driving force and focus we need to connect us and promote coherence across diverse systems.

Most of all, this study has helped me to see more clearly than ever that all living systems are characterized by tensions and paradoxes that shape all interaction and create constant activity. These dichotomies and differences challenge all of us to be aware of our own ethical positions and worldviews so that we actively learn from each other, and that we remain open to the possibility that our current perspectives can grow wider and change.
By developing a greater appreciation and beginning to think about and discuss more complex theories of health, well-being, sustainability, and system change, we may be able to envision and more fully appreciate our interrelatedness and deep connections to each other and our planet. This involves working across silos to bring together our diverse perspectives, gifts and strengths as we create much more than the sum of the parts. We can then create a synergy of new ideas and a future orientation to move toward a healthy, sustainable future.

My passion for this field has been sustained for many years. In 1968, when I was 12 years old and in grade 7, I gave my very first speech. I spoke of the importance of creating a safe and healthy world. I explained how important it was to be self-aware, appreciate the spiritual essence of life, and develop our gifts to make the world a better place for all. To this day, I am inspired by the image of Earth that was taken from Apollo 8 in December 1968. The image is a powerful representation for me of the interconnectedness of all life.

A health promoting, continuous learning, sustainable education system is more than an inspiring and worthy vision. It is essential to our essence as caring, empathic human beings and requires a future orientation, care, and stewardship. Together, we have a major responsibility to take care of all living systems including humankind, our ecosystems, our global planet and beyond.
REFERENCES


Hancock, T (2000). Healthy communities must be sustainable communities too. *Public Health Reports, (2 & 3)*, 151–156. – page number incomplete


---

11 No date (n.d.) was found in the actual publication; date is listed as 1990 in Hancock (1993).


Thomason, S. (2012). *Thketches: Theological sketches: Thketch of Kegan’s 5 orders*. Retrieved from [https://www.youtube.com/watch?v=mW4LTqRJDW8](https://www.youtube.com/watch?v=mW4LTqRJDW8)


APPENDICES

Appendix A

The Mandala of Health:
A Model of Human Ecosystem (Hancock & Perkins, 1985)
Appendix B

Initial Nine Principles of a Health Promoting, Continuous Learning, Sustainable System

1. *Equilibrium/Disequilibrium:* What is the balance required for individuals/organizations? Is too much change/disequilibrium unhealthy? How is this related to loss, resilience, acceptance of change, giving up power/control?

2. *Empowerment/Sharing of Power and Control:* How might new forms of shared and distributed leadership promote the health, well-being, and sustainability of individuals and the organization as a whole?

3. *Flexibility/Balance:* How can individuals and systems maintain flexibility, choice, and balance while dealing with constant change?

4. *Role of Disturbance/Willingness to Be Disturbed:* What leads to individual transformation when people experience major disturbances (death, illness)? Does this also occur in systems? If all change involves loss, anxiety and struggles (Fullan, 2001; Marris, 1975; Schön, 1972) can a small synergy point, attractor or loss create a transformational change for individuals and systems? (Wheatley, 2005).

5. *Emergent Leadership Patterns:* What are these? What role do they play in health, well-being, continuous learning and sustainability? Can certain forms or patterns of leadership act as an energy or leverage point enhancing the positive health and well-being of individuals and the organization as a whole? What role do power and empowerment play in this process? (Harris, 2003; Muijs & Harris, 2003)

6. *Generative Learning:* Is there a capacity to learn that goes deeper than our capacity to adapt more effectively to change? How can generative learning contribute to the health of individuals and the system as a whole?

7. *Resilience:* Can we develop the capacity to experience massive change and still maintain our integrity? Can massive change and stability work together to create optimal health and well-being? (Coutu, 2002)

8. *Diversity:* What role does diversity play in creating systems that promote optimal health, well-being, continuous learning, and sustainability? What specifically is it about diversity that contributes to learning? To optimal health and well-being? To sustainability?

9. *Connectedness:* How can increased appreciation of connectedness, to each other and our ecosystem, expand our optimal health and well-being on a sustainable basis?
Appendix C

Criteria for Selection of Schools Given to Senior Leaders (Stanton, 2009)

1) Schools Exhibiting Empowering, Shared, Distributed Forms of Leadership

This system environment examines the potential of certain forms/types of leadership to promote optimal health, well-being and continuous learning at the individual, school, and system (district) levels.

Schools may exhibit some of the following characteristics:

- leadership is shared, distributed, throughout the school in various forms (e.g. networks, teams, departments, divisional groups, committees);
- administrative teams function in a participatory, shared, distributed leadership approach;
- staff meetings are organized and power is shared/distributed through various mechanisms;
- staff feel empowered and take on various forms of leadership, share their expertise, work together in teams; and/or learn and share with each other and across schools;
- new emergent forms of leadership are developing in the school environment either formally or informally that have the potential to increase the potential of the school to achieve its goals; and;
- new forms of leadership are emerging that increase meaningful participation and involvement of staff throughout the school.

2) Schools Exhibiting a Culture of Continuous Learning

This system environment examines the potential of the culture of continuous learning to promote optimal health and well-being at the individual, school, and system (district) levels.

Schools may exhibit some of the following characteristics:

- staff is developing an increased capacity to adapt to change and generate new learning (adaptability, generativity);
- staff is able to take risks, be more creative and innovative, and learn from their mistakes (risk taking, double loop learning, creativity, self-efficacy);
- there is an increased sense of personal control by staff in relation to their own learning and the learning within their school environment (sense of empowerment, sharing of power/control);
- staff is able to access resources to address complex issues and concerns (access to resources, social/emotional support, manageability).
3) Schools Addressing Interrelatedness of Work and Life

This system environment recognizes that all systems are open and nested within larger systems. The boundaries are fluid/porous. This system environment begins to examine the interrelatedness of individual health, well-being, and continuous learning, our workplace environments and our broader life environments (e.g. family, community, society).

Schools may exhibit some of the following characteristics:

- new structures are emerging that address work life interrelatedness for individuals and for the organization/schools/school district as a whole;
- there are new forms of flexible organization and work design that meet the needs of both individuals/staff and the system/district as a whole;
- staff is involved in meaningful decision making about how to reorganize the school to develop new structures that interrelate with the community needs such as alternative school years, modified school year structures, etc.;
- policies and structures are in place to begin to address health and well-being for staff at an individual and workplace (school) level;
- the physical building is designed to address both optimal health, well-being, and continuous learning of teachers and students through new structures, design, walking areas, programming, nutrition in the cafeterias, etc;
- new programs are being put in place to address work life balance, flexible work arrangements, generational differences, recruitment and retention of staff;
- there are new opportunities for staff to participate in educational leaves, volunteer opportunities and networking locally, provincially and/or internationally;
- teachers and principals feel/perceive that their personal, social, emotional, and spiritual health and well-being are being taken into consideration as part of their overall work responsibilities, career plans, work organization and learning opportunities;
- staff perceives that there is increasing coherence and sense of manageability between their life purpose and their work; they are able to find opportunities to manage their lives to achieve both “moral purpose” in their work and “life purpose” in their personal lives; and
- staff and schools appreciate that individual health and well-being is interdependent on the health and well-being of our systems (schools/district), our communities and the broader environment/ecology.
Appendix D

Package of Information Sent to Participants in the Semi-Structured Interviews (Stanton, 2009)

Dear

Thank you very much for agreeing to participate in this research study entitled *A Health Promoting Continuous Learning Education System*.

This doctoral research study has been approved by the University of Toronto Ethical Review Committee and the X District School Board External Research Committee.

I am very pleased to have Dr. Carol Rolheiser as my supervisor for this study. Carol is a leader in collaboration, systems change and leadership.

I look forward to meeting with you on *(date/time to be determined)* at your school.

The interview will take approximately one hour and will address the top three system environments that were identified through preliminary interviews with a number of teachers, principals and superintendents in your school board.

This research examines the top three (3) system environments (as listed below) that have the potential to promote your optimal health, well-being, and continuous learning and that of your school/school district as a whole.

The three (3) system environments that we will be focusing on in the interview include:

i) leadership (forms that are health promoting; share power and control; are empowering; are distributed/shared/participatory);

ii) a culture of continuous learning; and

iii) interrelatedness of work and life.
As a nurse, teacher, health promoter, consultant in systems change and as a continuous lifelong learner myself, I have been interested for many years in how we can create large organizations and workplace environments that care about and pay attention to the health and well-being of their employees, promote continuous learning and growth, are able to adapt and change on a sustainable basis, and at the same time are successful at achieving their goals/objectives.

I would really like to learn more from you about how certain forms of leadership, a culture of continuous learning, and work life interrelatedness and balance can promote your individual health, well-being and continuous learning and the health, well-being, and continuous learning of your school/school district.

Most importantly I am interested in your opinion and ideas about the interrelationships between these three important conditions/system environments in your work, your school/school district, and your life.

I have attached some information for you to review before the interview.

In particular, please review the Conceptual Framework and the interview questions. While there are quite a few questions, together we can choose 3-4 questions from each of the 4 main areas to focus on.

The information you provide to me in the interview will be part of a larger system study. Your specific input and comments will remain confidential and anonymous at all times. A summary of my research findings for the school district as a whole will be made available to you at the end of this study.

I really look forward to learning more about your opinions, ideas and experience.

Thank you again for your participation in this important research topic!

Sincerely

Colleen M. Stanton
Ph.D. Candidate, OISE, University of Toronto
A. Overview of the Research

This study will take a systemic, ecological and holistic approach to examining system environments that promote optimal health, well-being and continuous learning for the adults in a large education system and for the education system as a whole. This represents a new and evolving approach to understanding organizational and system environments and their relationship to promoting optimal health, well-being, and continuous learning.

In this study ‘system environments’ are defined as ‘the complex of social, emotional, intellectual, spiritual, physical, cultural, and organizational conditions that interrelate, act upon, and influence the optimal health, well-being, and continuous learning of individuals within the system, and the system as a whole’ (Stanton, 2008).

This study will focus on the adults (teachers, principals, supervisory officers) in a school district (system) and their roles in leveraging long term sustainable change within the system.

Framework for This Research

This study utilizes three knowledge lenses or knowledge areas: health promoting systems; continuous learning systems; and living/sustainable systems. A number of underlying principles are beginning to emerge that are integral to health promoting, continuous learning systems. Some of these principles include: sustainability; diversity; ecological respect and sensitivity; holistic/systemic understanding; enabling, empowering forms of leadership; authentic sharing of power, control and influence/decision-making; a culture of collaboration, a culture of continuous learning; an appreciation of interdependence and connectedness; social justice and equity; openness, flexibility, work life interrelatedness.

Setting for the Research

This research study will take place in one large education system in Ontario. The study will utilize a qualitative exploratory approach to the research. Key experts in the following three areas will be asked to participate in the focus group: a) health promoting system; b) continuous learning systems; and c) sustainable/living systems. Based on their input and suggestions the framework and underlying principles will be further revised this data will be used to revise the interview questions and probes.

Semi-structured interviews will be conducted starting with 8 interviews at the system/district level and 44 interviews at the school level. The semi-structured interviews will be conducted with teachers and principals in four elementary schools and four secondary schools. The Superintendent for each school will also be invited to participate in an interview.
**Why Is This Research Important?**

In the health promotion field we are coming to a deeper, more complex understanding of what creates health and how it can be created in large organizations (WHO, 1986). Health is determined by a complex interplay of environmental, organizational and personal factors. There is a shift from the deficit model of disease to an asset model of health potentials inherent in social and institutional settings of everyday life (Kickbusch, 1996, p. 5). Human health is strongly linked to the health of our organizations, our communities, and our ecosystem (Hancock 1993; Milz, 1986; Capra 1996, 2002).

Education leaders throughout the system now recognize that a system engaged in continuous cycles of improvement needs to ensure the optimal health and well-being of all of its employees and the organization as a whole (Fullan, 2008; Fullan & Sharratt, 2006; Hargreaves & Fink, 2006; Leithwood, 2006). A health promoting, continuous learning education system is better able to support its staff, promote their optimal health and well-being, and work continuously towards achieving the goals of the organization and its stakeholders.

**My Major Research Question**

What are the system environments that promote optimal health, well-being, and continuous learning for the professional staff (teachers, principals, superintendents) in this school district and for the school district as a whole?

**Sub Questions:**

- Why and how do the top three (3) system environments promote optimal health, well-being and continuous learning of the individuals and the system (school district) as a whole?

- What are some of the principles, patterns, relationships, and synergies (between the top three system environments) that are integral to promoting optimal health, well-being, and continuous learning for individuals and the system (school district) as a whole?

- Is there one or possibly two system environments that might be considered “leverage points” for significant change towards a health promoting continuous learning education system (HPCLSES)?

- What are some of the benefits and challenges of this systems approach to promoting optimal health, well-being, and continuous learning for individuals and for the system (school district) as a whole?

**A Health Promoting Continuous Learning Education Sustainable System (HPCLSES)**

The conceptual framework has been developed for this research study based on the literature, key informant interviews and drawing on significant experience from a number of diverse fields including health promotion, continuous learning, education, business, organizational development, etc.
There are three major knowledge lenses or knowledge areas that are utilized in the conceptual framework:

- health promoting systems;
- continuous learning systems; and
- living/sustainable systems.

These three knowledge lenses are used to think about and gain a more in-depth understanding of some of the underlying principles of a HPCLES such as: sustainability, diversity, sharing of power and control; empowerment; holistic approaches and understandings; appreciation and respect for the environment; interdependence; flexibility; openness; balance and interrelatedness.

In this study we appreciate that “health is determined by a complex interplay of environmental, organizational and personal factors”. Human health is strongly linked to the health of our organizations, workplaces, communities, families and our broader society. While individual health can be influenced by our personal genetics, our incomes, our lifestyles/behaviors, level of education, access to resources, etc….. it can also be influenced significantly by the settings where we live, work, learn and play… everyday in our lives. Within these settings there are many “system environments” that may influence our health, well-being, and capacity to learn on a continuous basis.

The eight system environments were identified.

In this study system environments are defined as: “the complex of social, emotional, intellectual, spiritual, physical, cultural and organizational conditions that interrelate, act upon, and influence the optimal health, well-being and continuous learning of individuals within the system, and the system as a whole” (Stanton, 2008).

These eight (8) system environments are listed in the visual attached. While all eight (8) of these system environments are important, this research study will focus on the top three (3) system environments. These top three system environments were identified by key informants in your school district through preliminary interviews:

- leadership - forms that are empowering, share power and control, are shared/distributed;
- a culture of continuous learning; and
- interrelatedness of work and life (family, community, society).

These system environments may have the potential to promote the optimal health, well-being, and continuous learning of individuals and of the organization as a whole.
B. Preliminary Conceptual Framework

Knowledge and Appreciation of
Living Systems, Change & Sustainability Lens
(Ecological, Holistic, Systems Approach)

1. Leadership (empowering; distributed; shared)
2. Culture of Continuous Learning (intellectual environment)
3. Interrelatedness of Work & Life
4. Meaning/Purpose/Connectedness
5. Collaborative Culture
6. Health Promoting Physical Environments
7. Health Promoting Social/Emotional Environments
8. Work Organization/Design

Knowledge and Appreciation of
Health & Health Promotion Lens
(Ecological, Holistic, Systems Approach)

Knowledge and Appreciation of
Continuous Learning Lens
(Ecological, Holistic, Systems Approach)
C. Semi-Structured Questions and Definitions

The following are the research questions that have been approved by the University of Toronto Ethical Review Committee.

This is a semi-structured interview. Please review all of the interview questions attached. We can focus on 3-4 of the questions under each of the four main areas. We will have a total of one hour approximately 15 minutes per area.

- leadership;
- culture of continuous learning;
- interrelatedness of work and life; and
- interrelationship between the top three (3) system environments.

I will utilize a number of probes to find out more information under each of the questions.

If you have a particular interest in one area or feel that one area is more important to you than some of the others, please let me know and we can spend more time on these areas. If you do not want to answer any of these questions please feel free to decline.

Three System Environments

System Environment #1: Leadership

Leadership has been defined in numerous ways such as:

- the process of influencing activities of an organized group toward goal achievement (Rauch & Behling, 1984, p. 46);
- the process of giving purpose (meaningful direction) to collective effort, and causing willing effort to be expended to achieve purpose (Jacobs & Jaques, 1990, p. 281);
- the process of making sense of what people are doing together so that people will understand and be committed (Drath & Paulus, 1994, p. 4);
- the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives (Yukl, 2006, p. 8); and
- a specialized role and a social influence process (Yukl, 2006 p.8).

A number of types/forms of leadership have also been defined:

- shared leadership is a dynamic, interactive influence process among individuals and groups for which the objective is to lead one another to the achievement of group or organizations goals or both. Leadership is broadly distributed among a set of individuals instead of centralized in hands of a single individual who acts in the role of a supervisor (Pearce and Conger, 2003).
distributed leadership has been defined in two ways: i) as a synonym for
democratic leadership and as part of an effort to either expand the administrative
apparatus of schools or to give more authority to teachers (Harris & Muijs, 2005);
ii) as an analytic perspective to understand how leadership work is spread among
leaders, followers, and the situation (Spillane et al, 2004; Leithwood, Mascall,
Strauss, 2009).

health promoting leadership promotes the optimal health and well-being of
individuals and the organization/system as a whole. Health promoting leadership
draws on the values and principles of health promotion. Some of these values and
principles include: empowerment; sharing of power and control; meaningful
involvement in decision-making; appreciation of diverse strengths and capacities
of people; enrichment of individual and community life (authenticity, creativity,
meaningfulness, social connectedness, collaboration, trust, respect);
encouragement of continuous and lifelong learning; equitable access to resources;
social justice; sustainability (Stanton, 2007).

Based on an appreciation of leadership as a specialized role and a social influence process
with many of the values and qualities identified above.

1. Do you think that different forms/types of leadership have the potential to
   influence your individual health, well-being and continuous learning positively
   and or negatively?
   a. If yes, how can/does leadership influence your health, well-being, and
      continuous learning?
   b. What are some examples of health promoting leadership? Health
detracting/damaging leadership?

2. Do you think there are certain forms/types of leadership that are more health
   promoting than other forms?
   a. If yes, can you describe these forms/types?
   b. What is it about these forms/types of leadership that promotes your optimal
      health and well-being? is health promoting and enhancing?
   c. Do these forms/types of leadership also promote your continuous learning? If
      yes, how?

3. What might be some of the underlying values and principles of this type/form of
   leadership?

4. What does this type/form of leadership look like?
   a. How does it make you feel?
      and give examples.

5. How important is this type/form of leadership to your individual health and well-
   being? Can you rate this please – very important, important, not very important?

6. How important is this type/form of leadership to the health and well-being of your
   organization/system? Can you rate this please – very important, important, not
   very important?
7. If this is very important to your health and well-being and the health and well-being of your organization, how can this type of leadership be further promoted and developed at the individual, school, and district levels?

8. Do you think that your organization appreciates and supports the development of this type of leadership? If yes, why? Please give examples.

9. What do you think are some of the benefits of this type/form of leadership overall?
   a. What positive difference can this leadership make in this organization?

10. What are some of the challenges and difficulties associated with this leadership type/form?

11. Do you think people at various levels of this system appreciate the importance and influence of this type/form of leadership on health and well-being of individuals and the organization as a whole? If yes, please expand. If no, why not? What might be some of the reasons?

**System Environment #2: A Culture of Continuous Learning**

Simply put, continuous learning is the ability to learn to learn. Learning need not be a linear event where a learner goes to a formal learning program, gains areas of knowledge and skills about a process, and then the learning ceases. If the learner can view life (including work) as a "learning program", then the learner can continue to learn from almost everything in life. As a result, the learner continues to expand his or her capacity for living, including working (Carter McNamara at [http://www.managementhelp.org/trng_dev/design/cont_lrn.htm](http://www.managementhelp.org/trng_dev/design/cont_lrn.htm)).

In continuous learning, the learner continues to:

- recognize priorities or overall values about themselves and how they want to live and work -- they have a personal vision;
- take an active role in the world and work;
- continue to reflect on their experiences in the world and work;
- seek ongoing feedback about the world (including work) and their activities in it;
- remain as open as possible to the feedback (which requires a fair degree of personal maturity); and
- make ongoing adjustments, based on ongoing feedback, to the way they live their lives and conduct their work in order to more closely meet their priorities and values. (Senge, from the website [http://www.managementhelp.org/trng_dev/design/cont_lrn.htm](http://www.managementhelp.org/trng_dev/design/cont_lrn.htm)).

Learning organizations are organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together (Senge, 1990, p. 3).
Do you think that your organization has a culture of continuous learning? If yes, why? If no, why not?

1. What is about the culture that promotes continuous learning? Can you please describe in detail? Give examples?

2. Do you think/believe that this culture of continuous learning influences your optimal health and well-being? Does it have a positive or negative influence? If positive expand. If negative expand.

3. Are there particular aspects of this culture of learning that you find particularly health promoting? What are they? Please expand.

4. What do you think are the underpinning values and principles of this culture of learning that are important in relation to promoting your optimal health and well-being?

5. Have you thought about how this culture can be health promoting or health detractions? Please describe and expand.

6. Can you give examples when and how this culture is health promoting? Health detractions?

7. Overall how important is this culture of continuous learning to your optimal health and well-being on an individual basis? Can you please rate this - very important, important, not very important?

8. Can you tell me a little bit more about why and how this culture can be health promoting on an organizational level? Are there any other cultures that exist in your organization that are health promoting? Can you please expand on this?

9. Do you think there is an interrelationship between the type/form of leadership that you talked about earlier in this interview and the culture of continuous learning? If yes, can you tell me more about this please? What is the interrelationship? What is important about the leadership and the culture of continuous learning? Are there any common values and principles? What might some of these be?

10. Can you think of any ways to improve and continue to develop this important culture of learning in your organization/district? Are there any specific strategies that might help to promote this culture further in your school? at the system level?

11. Have you ever experienced the culture of continuous learning as detrimental to your optimal health and well-being? If yes, can you tell me more about this? Can you give me more details about why? Do you have an example that you can share with me?
System Environment #3 Interrelatedness of Work and Life

Interrelatedness of work and life appreciates that we are open systems nested within larger systems and the boundaries are fluid. Our individual health, well-being and continuous learning is interrelated and interconnected to our workplace environments and our broader life environments (family, community, society). Our health and well-being is created in our daily settings and environments where we live, work, learn, and love (World Health Organization, 1986). These are interrelated and interdependent settings and environments and cannot be separated into silos.

Definitions of interrelatedness include:

- to place in or come into mutual relationship
- mutual or reciprocal relation or relatedness

Based on the literature and a number of key informant interviews the following are some examples of key points to consider re interrelatedness of work and life:

- balance between work and family life;
- flexibility in terms of work hours, time off, working arrangements, design of work;
- systemic and individual support (social, emotional, intellectual, physical) for employees during difficult and stressful times;
- dynamic and ongoing opportunities to learn and grow through diverse educational leaves, involvement in volunteer activities; working in other countries; etc.;
- appreciation of the whole person – social, emotional, intellectual, spiritual, physical;
- appreciation of cultural and spiritual practices, obligations and responsibilities;
- appreciation of generational differences in attitudes and approaches to work/life balance and implications for work organization/design;
- appreciation of diverse strengths, capacities, opportunities for individuals in terms of promoting their optimal development, growth and capacity within their work and life environments;
- awareness of interrelationship and a sense of coherence between personal and professional life purpose/meaning; importance of meaning and contributing to something bigger than ourselves in our personal and professional lives;
- appreciation of systems as open systems that are interrelated and interdependent in relation to health and well-being on a number of levels - individual, organizational, community, society.

1. Do you think/believe that your work environment and broader life environments (family, community, society) are interrelated? If yes, can you expand please? If not, how do you keep these separate?

2. Can you please describe some of these interrelated aspects of your work and broader life environments (family, community, society)?
3. Are there specific aspects of your work environment that could be more health promoting if there was more attention to the interrelatedness of work and life? If yes… can you please give some examples?

4. What are some of the underlying principles and values of the interrelatedness of work and life?

5. What is the impact/influence of interrelatedness of work and life on your individual health and well-being and the health and well-being of the organization as a whole?

6. Do you think/believe that the interrelatedness of work and life also influences the ability of your organization to achieve its goals/objectives? Why? How? Can you please expand?

7. Are there specific structures or policies in your organization that influence the interrelatedness of work and life for you?
   a. Are there particular policies, structures that you would like to see changed in order to better promote your work life balance and health and well-being?
   b. Could your school or school system be organized differently to promote your health and well-being…making your home and work life more balanced?
   c. Are there specific programs, resources, educational opportunities that could be helpful in terms of supporting your work and life interrelationships/balance/flexibility?

8. How can the organization as a whole support and promote your optimal health, well-being and continuous learning in relation to the interrelatedness of work and life?

9. Are there other important areas that need further attention in relation to your social, emotional, spiritual and physical health, and well-being that are not being taken into consideration in your workplace environment that would further enhance the interrelationship between your work and life? Your overall balance? Your overall health and well-being?

10. Do you think that there is a sense of coherence between your personal and professional life purpose/meaning? If yes, is this important to you? If no, is this a problem or issues?
    a. Does your work environment support you in ensuring this sense of overall purpose, meaning, and connectedness in life?
    b. What is important about this in relation to your optimal health, well-being, and continuous learning?
    c. Does this sense of overall purpose and meaning play a role in your ability to achieve your professional goals and support students in their learning/life purpose?

11. How could the education system and schools more effectively promote the interrelatedness of work and life for a) staff; b) students; c) families and d) community? Through values, policies, structures, programming, relationships?
Interrelationships Between the Top Three (3) System Environments

1. After our discussion today, can you tell me how you think these top three (3) system environments are interrelated to each other?
2. Is one system environment more important than the others in relation to your optimal health, well-being and continuous learning?
3. If you had to focus on just one system environment, which one do you think is most important/influential to a) your individual health, well-being, and continuous learning? b) to the organization’s health, well-being, and continuous learning?
4. Do you think there is a special synergy between any two of these system environments?

Open-Ended Questions

1. Are there any other important system environments (See Appendix A: Conceptual Framework) that we have not yet talked about that you feel are important to your own individual health, well-being, and continuous learning? To the health, well-being, and continuous learning of your organization as a whole? Can you please expand on this?
2. Do you have any other important information that you would like to share with me about this research topic?

Thank You
Appendix E

Connecting the Themes and Subthemes from Diverse Voices and the
12 Principles of a Health Promoting, Continuous Learning, Sustainable System
(Stanton, 2014)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Sub-Themes</th>
<th>Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System Environment 1: Leadership – The Enabler</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Appreciation of Human Spirit &amp; Respect for All of Life</td>
<td>Human Spirit</td>
<td>2, 3, 10</td>
</tr>
<tr>
<td></td>
<td>Developing a Deeper and Broader Appreciation of Health</td>
<td>2, 3, 10</td>
</tr>
<tr>
<td></td>
<td>Qualities and Values Reflective of Health, Well-</td>
<td>1, 2, 3, 4, 7, 10, 11</td>
</tr>
<tr>
<td></td>
<td>Being, and Sustainability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Healthy Attitude of Openness, Genuineness, and Authentic Listening</td>
<td>2, 3, 4, 6, 11</td>
</tr>
<tr>
<td>2. Authentic Sharing of Power and Control Through Empowerment</td>
<td>Distributing Leadership Through Authentic Valuing</td>
<td>1, 3, 4, 6, 7, 10, 12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3, 4, 7, 8, 10</td>
</tr>
<tr>
<td></td>
<td>Shared, Servant, and Situational Leadership</td>
<td>1, 3, 6, 7, 8, 12</td>
</tr>
<tr>
<td></td>
<td>Empowerment, Choice, and Authentic Sharing of Control</td>
<td>1, 3, 4, 5, 6, 7, 8, 10, 12</td>
</tr>
<tr>
<td></td>
<td>Organizational Fit, Coherence, Reward, and Recognition</td>
<td>1, 3, 5, 10</td>
</tr>
<tr>
<td>3. Diversity, Voices and Meaningful Input Into Decision-Making</td>
<td>Diversity is Synergistic</td>
<td>1, 3, 4, 7, 8, 10,12</td>
</tr>
<tr>
<td></td>
<td>Issues and Concerns Related to Lack of Meaningful Input Into Decision-Making</td>
<td>1, 3, 5, 7, 12</td>
</tr>
<tr>
<td><strong>System Environment 2: A Culture of Continuous Learning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Diverse Ways of Knowing</td>
<td>Tacit / Intuitive Ways of Knowing</td>
<td>1, 3, 4</td>
</tr>
<tr>
<td></td>
<td>Creative Ways of Knowing</td>
<td>1, 3, 10</td>
</tr>
<tr>
<td>2. Embedding Learning into Ongoing Processes and Relationships</td>
<td>Co-Creating Our Own Sustainable Reality</td>
<td>1, 3, 4, 7, 8, 9, 10</td>
</tr>
<tr>
<td></td>
<td>Practices Limiting Learning, Health, Well-Being, and Sustainability</td>
<td>3, 4, 6, 7, 8, 10</td>
</tr>
<tr>
<td>3. Creativity, Risk Taking, Innovation, and Appreciation of Resources</td>
<td>The Role of Coach and Mentor</td>
<td>3, 4, 6, 7, 8, 9, 10</td>
</tr>
<tr>
<td></td>
<td>Resources are Integral to Creating a Culture of Continuous Learning</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Innovative and Emergent Structures and Processes</td>
<td>1, 3, 4, 5, 7, 8, 9</td>
</tr>
<tr>
<td>4. Learning as an Ongoing Reflective Process and Practice</td>
<td>Reflecting, Questioning, Seeking Relevance, and Challenging the Status Quo</td>
<td>6, 7, 9, 10, 11, 12</td>
</tr>
<tr>
<td></td>
<td>Looking for Big Picture Patterns</td>
<td>3, 6, 7, 9, 10</td>
</tr>
<tr>
<td></td>
<td>Paying Attention to Energy and Eliminating Bottlenecks</td>
<td>3, 7, 9, 10</td>
</tr>
</tbody>
</table>
Connecting the Themes and Sub Themes from Diverse Voices and the 12 Principles of a Health Promoting, Continuous Learning, Sustainable System

*(Stanton, 2014)*

(Continued)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Sub-Themes</th>
<th>Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Environment 3: Interrelatedness of Work and Life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Self-Awareness: Know Yourself, Values, Worldview, and Strengths</td>
<td></td>
<td>1, 3, 6, 8, 10, 11</td>
</tr>
<tr>
<td>2. Finding Balance Through Approaches to Change</td>
<td>Soft and Hard Systems Approaches to Change</td>
<td>1, 3, 4, 5, 6, 7, 8</td>
</tr>
<tr>
<td></td>
<td>Structures Restricting and Promoting Health</td>
<td>1, 3, 6, 7, 8, 10</td>
</tr>
<tr>
<td>3. Life Stages and Generational Differences</td>
<td></td>
<td>1, 3, 6, 7, 9, 10</td>
</tr>
<tr>
<td>4. Awareness and Service to the Whole: Empathy, Forgiveness, Ecological, Spiritual, and Global Well-Being</td>
<td>Emergence of Compassion, Empathy, Caring, Forgiveness, and Joy</td>
<td>3, 4, 6, 7</td>
</tr>
<tr>
<td></td>
<td>Contributing to Something Larger than the Self</td>
<td>3, 5, 6, 10</td>
</tr>
<tr>
<td>5. Appreciation of Loss, Change, and Letting Go</td>
<td>Implications of Leaders Retiring</td>
<td>3, 11</td>
</tr>
<tr>
<td></td>
<td>Balancing Diverse Leadership Approaches</td>
<td>3, 5, 7, 12</td>
</tr>
</tbody>
</table>
Appendix F
Connecting the 12 Principles of a Health Promoting, Continuous Learning, Sustainable System and Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability (Stanton, 2014)

<table>
<thead>
<tr>
<th>Principle</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Autocratic / Compliant / Pattern</td>
<td>Top-Down / Planned / Improvement Pattern</td>
<td>Collaborative / Adaptive Pattern</td>
<td>Emergent / Curious / Generative Pattern</td>
<td>Integrative / Holistic / Complex Pattern</td>
</tr>
<tr>
<td></td>
<td>Ordered</td>
<td>Organized</td>
<td>Becoming Self-Organizing</td>
<td>More Self-Organizing</td>
<td>Most Self-Organizing</td>
</tr>
<tr>
<td>1 Nested Systems within Open Systems</td>
<td>Work in silos</td>
<td>Uses structure to control/direct</td>
<td>Beginning to open up to new ideas, structures, forms of organizing and worldviews</td>
<td>Able to see benefits of open, diverse opinions and worldviews</td>
<td>Very open to new ways of knowing, spiritual, global ecological wholeness</td>
</tr>
<tr>
<td>2 Interrelatedness</td>
<td>Appreciates individual nature</td>
<td>Less ego oriented</td>
<td>Beginning to work collaboratively with family and community</td>
<td>Recognizes interrelatedness with each other</td>
<td>Very broad consciousness of spiritual, ecological, and global connectedness</td>
</tr>
<tr>
<td></td>
<td>Not very aware of interrelatedness with others</td>
<td>Some recognition of interrelatedness to and with others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ego orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Relationships</td>
<td>Not a lot of trust</td>
<td>Begins to open up</td>
<td>Beginning to share</td>
<td>Higher trust levels</td>
<td>Trust is high</td>
</tr>
<tr>
<td></td>
<td>Fairly isolated</td>
<td>Lacks overall trust</td>
<td>Developing higher levels of trust</td>
<td>Able to share more with others</td>
<td>Asks questions</td>
</tr>
<tr>
<td></td>
<td>Competitive</td>
<td>Self-focused and competitive</td>
<td>Gives of self</td>
<td>Collaborative work</td>
<td>Appreciates diverse opinion, ambiguity</td>
</tr>
<tr>
<td>4 Communities, Collaboratives, and Networks</td>
<td>Independent, Top-down</td>
<td>Still independent, Mostly top-down, formal structures</td>
<td>More collaboration and community nature is growing</td>
<td>Communities and networks becoming more open and loosely coupled</td>
<td>Use of broader more global informal networks of inquiry and change</td>
</tr>
<tr>
<td></td>
<td>Formal structures</td>
<td></td>
<td>Some iterative forming of groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Diversity of Ideas, Cultures, Worldviews, and Knowledge</td>
<td>Afraid of differences</td>
<td>Not very open to differences</td>
<td>More appreciative of diversity</td>
<td>Learning how to thrive in diverse environments</td>
<td>Diversity seen as exciting and synergistic</td>
</tr>
<tr>
<td></td>
<td>Likes sameness, similar thinking and values</td>
<td>Standardization is seen as positive</td>
<td>Sees benefits of diverse teams, ideas, values and worldviews</td>
<td>Appreciates diverse values and worldviews</td>
<td>Believes small changes can bring significant change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Likes routines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Develops policies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Dynamic Balance</td>
<td>Balance not a factor in health</td>
<td>Some consideration for balance as a factor in health</td>
<td>Strives for dynamic balance</td>
<td>Appreciates disequilibrium, uncertainty, and ambiguity</td>
<td>Thrives on disequilibrium, ongoing change, and uncertainty</td>
</tr>
<tr>
<td></td>
<td>Top-down model</td>
<td>Top seeks some input on work distribution</td>
<td>Talks about finding /ensuring balance</td>
<td>Adapts easily</td>
<td>Knows not in control</td>
</tr>
<tr>
<td></td>
<td>Little dialogue on choice</td>
<td></td>
<td>Trying to address resilience and renewal</td>
<td>Willing to be disturbed</td>
<td></td>
</tr>
</tbody>
</table>
## Connecting the 12 Principles of a Health Promoting, Continuous Learning, Sustainable System and Five Levels of Complexity and Consciousness of Health, Well-Being, and Sustainability (Con’t)

<table>
<thead>
<tr>
<th>Principle</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Autocratic / Compliant / Pattern</td>
<td>Top-Down / Planned / Improvement Pattern</td>
<td>Collaborative / Adaptive Pattern</td>
<td>Emergent / Curious / Generative Pattern</td>
<td>Integrative / Holistic / Complex Pattern</td>
</tr>
<tr>
<td>Level 1</td>
<td>Ordered</td>
<td>Organized</td>
<td>Becoming Self-Organizing</td>
<td>More Self-Organizing</td>
<td>Most Self-Organizing</td>
</tr>
<tr>
<td>Level 2</td>
<td>Limited ideas, information, Meaning pre-defined at top</td>
<td>Some dialogue beyond the top Meaning still largely defined at the top</td>
<td>Becoming more collaborative and sharing resources, information, ideas</td>
<td>Collaborative Mid-course corrections common</td>
<td>Web-like, emergent Meaning defined individually and collectively</td>
</tr>
<tr>
<td>Level 3</td>
<td>Hierarchical and very directive Key people determine what is important to learn</td>
<td>Quite organized and directive Key people and funding determine what is important to learn</td>
<td>Learning comes appreciated as collaborative, inter-relational and synergistic Some co-creation</td>
<td>Learning occurs continuously, is adaptive, generative, innovative Inquiry model</td>
<td>Learning is integral to life Ongoing creation and development of social, emotional, physical intellectual, spiritual, ecological well-being</td>
</tr>
<tr>
<td>Level 4</td>
<td>Hierarchical Very directive processes and little input from the majority of staff/people</td>
<td>Organized, standardized Small group of people design the system Design is a planning and management function</td>
<td>Beginning to see collaborative design and emergence allowed Engages in feedback looping Some emergent structures/processes</td>
<td>Loose design Works creatively to change Taps into feedback loops Broader/more emergent and flexible</td>
<td>Open creative processes, self-organization Comfortable with emergence, synergy OK with ambiguity</td>
</tr>
<tr>
<td>Level 5</td>
<td>Focus on power, control, safety, hierarchy, competition</td>
<td>Focus on individual and organization, competition outcomes</td>
<td>Focus on collaboration Beginning to care for others Sees connection with the whole</td>
<td>Recognizes interrelatedness and nestedness Focus on others</td>
<td>Recognize spiritual, ecological, global consciousness of life</td>
</tr>
<tr>
<td>Level 6</td>
<td>Unable to let go and change Likes to hold on to power, control, and old patterns</td>
<td>Holds on to patterns of thought Not very open to new ideas</td>
<td>Loss and change beginning to be understood and appreciated More open and better able to let go and change through support</td>
<td>Recognizes loss and change is integral to growth Sees benefit of unlearning and difficult times</td>
<td>Deals with loss, transformation, accepting and changing Integral to life</td>
</tr>
<tr>
<td>Level 7</td>
<td>No sharing of power and control</td>
<td>Limited sharing only to get what needs doing Many policies, procedures, rules</td>
<td>Beginning to form collaborative culture and share power and control as a community</td>
<td>Creates loose networks to share power Builds on diversity</td>
<td>Loose networks locally and globally which work synergistically Share power</td>
</tr>
</tbody>
</table>
## Appendix G

**Stepping Up the Scale of Leadership Distribution**

*(Modified from Hargreaves & Fink, 2006 by Stanton, 2009)*

<table>
<thead>
<tr>
<th>Healthier and More Sustainable Forms of Leadership</th>
</tr>
</thead>
</table>

### Anarchy

#### Assertive Distribution
- Be even more steadfast and passionate about shared purposes and values.
- Stimulate wide-ranging debate about important proposals.
- Involve resisters early.
- Include and listen to minorities.
- Uses processes that surface thoughtful divergence and disagreement.
- Demonstrate the value of learning from differences.
- Be prepared for criticism but insist on respectful dialogue.
- Keep your sense of humour.
- Ensure that the vigorous professional culture always moves you forward.
- Never abrogate responsibility; Always reaffirm your goals.

### Emergent Distribution
- Remain clear about purposes and values. Ensure that they are genuinely shared.
- Maintain a premium on relationships. Encourage staff to innovate.
- Develop a culture of professional entrepreneurship.
- Demonstrate trust.
- Step back from watching over all interactions and relationships.
- Learn to let go.
- Don’t pour cold water on proposals when they are brought forward.
- Praise initiative, celebrate good results.

### Guided Distribution
- Rely on more than your structures.
- Develop better relationships; Bring people together.
- Show interest in your staff members as people.
- Improve the quality of professional conversations.
- Concentrate on core purposes.
- Model the attentive behaviour you expect of them.
- Be visible and vigilant, always steering conversations and relationships in a more productive and attentive direction.

### Progressive Delegation
- Extend and amend your structures, teams, and committees.
- Create new roles.
- Focus people’s roles and responsibilities on learning and improvement.
- Use the new structure to restrict the veto of the old ones.
- Develop proper planning; Consult with your teams and committees.
- Audit the results.

### Traditional Delegation
- Hand over some power, don’t do everything yourself.
- Appoint good deputies and seek and rely on their counsel.
- Respect their autonomy.
- Make sure they report to you regularly.

### Autocracy