11-2011

Sustainability Leader Competencies: A Grounded Theory Study

Pamela G. Schwalb
University of Nebraska-Lincoln, pam.schwalb@cox.net

Follow this and additional works at: https://digitalcommons.unl.edu/aglecdiss

Part of the Business Administration, Management, and Operations Commons, Organizational Behavior and Theory Commons, Other Public Affairs, Public Policy and Public Administration Commons, and the Other Social and Behavioral Sciences Commons

https://digitalcommons.unl.edu/aglecdiss/31

This Article is brought to you for free and open access by the Agricultural Leadership, Education & Communication Department at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Theses, Dissertations, & Student Scholarship: Agricultural Leadership, Education & Communication Department by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.
SUSTAINABILITY LEADER COMPETENCIES: A GROUNDED THEORY STUDY

By

Pamela Giardina Schwalb

A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Philosophy

Major: Human Sciences (Leadership Studies)

Under the Supervision of Professor Gina S. Matkin

Lincoln, Nebraska

November, 2011
The purpose of this critical qualitative study was to develop a theory of the competencies of a sustainability leader, grounded in research. A sustainability leader is generally described as an individual who creates profit for his/her stakeholders, while protecting the environment and improving the lives of those for whom he/she impacts as a result of his/her leadership. Nearly 60 individuals familiar with sustainability were asked to characterize an effective leader of a sustainability initiative or a sustainability organization.

The study revealed there is more than one way to be a sustainability leader—different paths can result in decisions and actions that synthesize the needs of and impacts to planet, people, and profit. An intention to integrate the imperatives of these three—a sense of purpose that transcends all of the behaviors and qualities of a sustainability leader—is an all-encompassing aspect of the theory. In addition, a sustainability leader possesses a systems-thinking style and exhibits positive psychological constructs, including: hope, courage, integrity, and servitude. It is at this point that the model diverges, based on the role the sustainability leader plays: advocate, process-responsible, or outcome-driven. The competencies—broken down among the dimensions of knowledge, skills, style, method, and mission-criticality—will vary, depending on the leader’s role. This finding suggests that the generally adopted sustainability model of
three, identical-sized circles representing planet, people, and profit does not accurately depict how a leader approaches an issue in need of sustainable consideration. Depending on the leader’s role and other variables, the circles may not be of equal weighting—they may be predisposed to favor one or two of the pillars. The resulting model is multidimensional and complex.
ACKNOWLEDGEMENTS

I remind myself daily of the blessings in my life, and I always begin by giving thanks for the people that keep me company. It is no surprise that many of these gifts-in-the-form-of-persons are also my family, friends, mentors, advisors, and companions in this journey for knowledge. I so appreciate the time all of the participants afforded to me in my quest. I learned from each of you, and am different for our time together. Thanks for the support provided by Jean Delfs, Brittney Novacek, Nicole Bonk, and Dr. Joyce Winfield for transcribing, editing, and turning my penciled models into works of art.

Some of you I consider special angels—sent for the express purpose to support and guide me. Dr. James King, Dr. Susan Fritz, Dr. Ron Joekel, Dr. Jay Barbuto, Dr. Tammy Moerer, Dr. Jody Woodworth, Dr. Jane Langemeier, Gretchen Jopp, Carla Dirkschneider, Siti Arshad-Snyder, Dr. Bernice Ledbetter, Dr. Chris Voparil, and my cohort from the Union Institute and University are all angels to me. Some provided knowledge and support and a sounding board, others created the space where I could work. And I’m pretty sure there was Divine intervention the day I was introduced to my advisor, committee chair, and friend, Dr. Gina Sue Matkin (my “twin-sister-from-a-different-mister”!). This is just the beginning of things we will do together, both fun and important!

There are my special “spiritual” friends, with whom I can talk “woo-woo” and not feel too silly: Carol Hunter, Tim Rouse, Dr. Heath Harding, Peg Mahoney, Gladyce Janke, and all of my friends in the Wisdom Community (I still do not converse with rocks—I suppose there is more work to be done here!). Thank you for reminding me that
when considering “enough-ness”, spirituality also needs to be measured; and for being my companions in this journey of the spirit, which seemingly has had its own agenda.

I joke that ever since I was a baby, my mom and dad, Barbara and Anthony Giardina, leaned over my crib and whispered, “Go to college”. I don’t know that they envisioned I’d still be going to school more than 50 years later however! (It might have been a dream, but I’m pretty sure last night they came in and whispered, “Eleven years is long enough!”) Before the phrase “life-time learners” became en vogue, my parents were modeling life-time learner behaviors—and 70 years later, they are still learning new things, and thankfully, continue to teach me. To my “seester” Patti Jo, (a.k.a. Marla to my GiGi and Betty to my Connie), it just doesn’t seem right that I’m a doctor, yet you have all of the medical wisdom. As long as you keep taking care of me—you and Donnie—I promise you’ll never have to address me as “Doctor Seester Pam”. Love you all.

Ali and Will. Don’t know what right I ever did to be so especially blessed with you—even though you called your mother a “nerd” for going to school so darn long. Thank you for allowing me to explore and grow in many dimensions—in addition to that most important Mom role. I hope I gave you all of the attention you wanted and needed. Thank you for being so patient and supportive, and telling me how proud you are of me. When I grow up, I want to be just like you! Love you my Peanut and Sweet William, love you a bushel-and-a-peck-and-a-hug-around-the-neck.

Last, but certainly not least of my earthly companions, my soul-mate and love-of-my-life, Greg. You are my rock, my foundation, my best friend. You give me a safe place from where I can “push off” when I need to go exploring, and a big ol’ bear hug
when I return. (I’m pretty sure I love you more.) St. Greg, “Moose”, Schwalb, Meine
Liebschen: can I go back to school next year?? (Just kidding . . . . . . well, sort of!)

Finally, I thank God for all of the gifts He has given me—the special people
mentioned above, a good mind and independence of thought, a free country to live and
roam around in, good health, and a comfortable life. I pray I never forget that these are
not gifts for my own enjoyment, but rather to be shared with others.
# TABLE OF CONTENTS

**ABSTRACT** ................................................................. ii

**ACKNOWLEDGEMENTS** .............................................. iv

**CHAPTER ONE – INTRODUCTION TO THE STUDY** ............... 1

- Background ......................................................... 1
- Statement of the Problem ......................................... 5
- Purpose of the Study ............................................... 8
- Research Questions ............................................... 8
- Methodology ....................................................... 9
- Definition of Terms ............................................ 10
- Assumptions ....................................................... 12
- Delimitations and Limitations .................................. 12
- Significance of the Study ....................................... 13

**CHAPTER TWO – REVIEW OF LITERATURE** ..................... 15

- Sustainability – Government .................................... 16
- Sustainability – Thought Leaders .............................. 18
- Sustainability – Theoreticians .................................. 20
- Sustainability – Scholars ......................................... 22
- History of Leadership ........................................... 24
  - *The Personality Era* ........................................... 27
  - *The Influence Era* ............................................ 27
  - *The Behavior Era* ............................................. 28
  - *The Situation Era* ........................................... 29
  - *The Contingent Era* ......................................... 29
  - *The Transactional Era* ..................................... 29
  - *The Anti-Leadership Era* .................................. 30
  - *The Culture Era* ............................................. 31
  - *The New Era* .................................................. 31
# Table of Contents

## CHAPTER THREE – METHODOLOGY 34

- Qualitative Tradition – Grounded Theory 34
- Selection Criteria of Participants and Sampling Method 35
- Entry into the Field 36
- Protocol 37
- Data Analysis and Writing 38
- Validation 39
- Researcher Philosophy, Worldview, Paradigm, Beliefs and Biases 40

## CHAPTER FOUR – REPORT OF FINDINGS 43

- Context and Antecedents in Which Sustainability Leader Competencies Develop 47
  - Thinking Style 50
  - Positive Psychological Constructs 52
- Intervening Conditions Influencing Sustainability Leader Competencies 55
- Phenomena Resulting from Purpose and Role in Sustainability 58
  - Knowledge 58
  - Skills 59
  - Style 59
  - Method 60
  - Mission-Critical 60
- Strategies and Consequence 61
- Summary 61

## CHAPTER FIVE – SUMMARY, DISCUSSION, SIGNIFICANCE, AND RECOMMENDATIONS 65

- Summary 65
- Discussion 66
- Significance 68
- Recommendations and Reflections 69
  - Limitations and Recommendations for Further Research 69
  - Recommendations and Implications for Further Research 70
  - Researcher’s Reflections 72

## REFERENCES 75
APPENDICES .......................................................... 88

A. IRB NUgrant Approval Letter ........................................... 89
B. Informed Consent Letter ........................................................ 91
C. Interview Protocol ............................................................... 94
D. Codes and Categories Example ........................................... 95
E. Peer-Review Validation Summary ........................................ 96
F. External Audit Report ......................................................... 98

LIST OF TABLES

Table 4.1: Study Participants ................................................ 44

LIST OF FIGURES

Figure 2.1: History of Leadership Eras .................................... 26
Figure 2.2: Sustainability and History of Leadership Eras ................... 33
Figure 4.1: Traditional Model of Sustainability ............................ 48
Figure 4.2: Antecedens to Sustainability Leadership Competencies ........... 54
Figure 4.3: Grounded Theory Model of Sustainability Leadership Competencies . 63
CHAPTER ONE

INTRODUCTION TO THE STUDY

Background

Here’s a riddle: What do you get when you combine record snowmelt from the Rocky Mountains (140 percent more than average) and record spring rainfall? Answer: a flood—a record flood—a “hundred-year” flood, impacting a million acres of farmland and inhabitants along the Missouri River in Montana, North Dakota, South Dakota, Nebraska, Iowa, Kansas, and Missouri.

You also get a case study in sustainability leaders and sustainability leadership. There were inevitably going to be winners and losers during the flood of 2011. To determine the best actions resulting in water management and flood control, decision-makers had to consider the sometimes conflicting purposes and impact on water supply, irrigation, fish, wildlife, crops, businesses, recreation, river navigation, roadway navigation, home owners, trees, vegetation, and hydropower. Now that the waters have receded, many politicians, environmentalists, and impacted citizens are questioning actions taken by the U.S. Army Corps of Engineers (Corps). How were decisions made, knowing the affects would be different for those living upstream versus those living downstream? Who were the winners and losers among the planet, its people, and profits?

In the spring and summer of 2011, the Corps released water at more than twice the volume since the six main-stem reservoirs were built more than 50 years prior. Flooding not only occurred in South Dakota, North Dakota, and Montana, but also in
backwaters impounded by the reservoir dams. Downstream from reservoir releases in Iowa, Nebraska, Kansas, and Missouri numerous levees were breached, flooding farmlands and towns as well as threatening to flood two nuclear power plants (River Crossings, 2011). Stockpiling in the reservoirs and timing of the release of water created the greatest impact to all affected areas.

What would a sustainability leader do in this situation? “At its core, [sustainability] is about empowerment, facing reality, and learning to think and act with greater reverence for Earth, its limits, and its intelligence . . .” (Timpson, Dunbar, Kimmel, Bruyere, Newman, & Mizia, 2006, p. xv). Some would argue the Corps demonstrated a philosophy of sustainability with its actions: consideration was given to the environment, the people, and economies reliant on and affected by water from the Missouri River. The solution—releasing the waters when they did—came as a result of synthesizing, integrating, and balancing the needs of all stakeholders involved.

Concerns leading to what has been described as the “sustainability revolution” include rapid climate destabilization, species extinction, finite natural resources, pollution, terrorism, and ecological unraveling in its many forms—and the human, political, and economic consequences of such things. Orr, in his foreword to the book The Sustainability Revolution (cited in Edwards, 2005), describes the activities around sustainability as:

. . . nothing less than a rethinking and remaking of our role in the natural world. It is a recalibration of human intentions to coincide with the way the biophysical world works. . . . The concern for our longevity as a
species represents a maturing of our kind to consider ourselves first as ‘plain members and citizens’ of an ecological community, and second as trustees of all that is past with all that is yet to come—a mystic chain of gratitude, obligation, compassion and hope (pp. xiv-xv).

As Jared Diamond concludes in *Collapse* (2005), the test of every culture is whether it will adapt to whatever threats emerge, or wither and disappear.

While the topic of sustainability has grown in popularity recently, it was first addressed as a global imperative in 1983. This is when the United Nations convened the World Commission on Environment and Development, popularly known as the Brundtland Commission. The primary focus of this Commission was to “propose long-term environmental strategies for achieving sustainable development to the year 2000 and beyond” (¶8). It is from the report of the Commission (1987) that the widely accepted definition of sustainability became “[to meet] the needs of the present without compromising the ability of future generations to meet their own needs” (¶27). Since that time, sustainability goals for businesses have been defined as meeting a “triple bottom line” comprised of environmental stewardship, standards of human dignity, and financial profit.

Sustainability leadership by any description or label has received little attention in the field of leadership studies. Scholars who have written about this phenomenon make only fleeting reference to leadership, if it is addressed at all (Kellerman & Webster, 2001; Antonakis, Cianciolo & Sternberg, 2004; Gill, 2006; James, 1996; Essex & Kusy, 1999; Corbin, 2000). Redekop (2010) has an explanation for this lack of attention:
This deficit in taking a serious, long-term perspective on the future—and the looming environmental crisis in particular—in the field of leadership studies reflects both the field’s orientation toward the limited time horizons of Anglo/U.S. capitalism, and the general worldview of the first industrial revolution, in which the future was seen to be limitless and constraints on economic and industrial activity were either ignored (as in the case of air and water pollution) or strongly opposed (as in the emergence of organized labor) (p. 3).

To be fair, there is starting to emerge more discussion around sustainability-like imperatives for, and characteristics of, leaders. Take for example, recent works by Ronald Heifetz, Peter Senge, and Benjamin Redekop. Heifetz has written about “adaptive challenges” in *Leadership Without Easy Answers* (1997) and in a chapter of *The Leader of the Future 2* (2006). While he does not specifically address the environment or human dignity, Heifetz states “Mobilizing people to meet adaptive challenges, then, is at the heart of leadership practice” (p. 76). He defines adaptive challenge as “a gap between aspirations and reality that demands a response outside the current repertoire” (p. 76). This would certainly qualify the issues under the sustainability umbrella as adaptive challenges.

Peter Senge, with Bryan Smith, Nina Kruschwitz, Joe Laur, and Sara Schley in their book *The Necessary Revolution: How Individuals and Organizations are Working Together to Create a Sustainable World* (2008), have as their number one guiding idea essential for creating a more sustainable future as, “There is no viable path forward that
does not take into account the needs of future generations” (p. 9). They describe leadership as “. . . how we shape futures that we truly desire, as opposed to try as best we can to cope with circumstances we believe are beyond our control” (p. 372).

Benjamin Redekop in *Leadership for Environmental Sustainability* (2010) describes an emerging “eco-leader” paradigm as “our best hope for success, both environmentally and as a civilization” (p. 246).

**Statement of the Problem**

Increasingly, sustainability-related issues are imposing themselves on businesses. Michael S. Hopkins, editor-in-chief of *MIT Sloan Management Review* provided a partial list of these impositions in a 2009 article:

. . . volatility of resource availability and price; impending regulation; customer demands; investor pressure; emergence of new markets and evaporation of old ones; effects on attracting and retaining talent; changes in financial operations; necessity for collaboration across boundaries that used to be inviolable; pressure from communities and interest groups; growing economic uncertainty; the need to cultivate resilience; and the general hunt for strategies that could hope to succeed over the longer term instead of just tomorrow” (p. 19).

Business leaders are expected to find ways to be part of the solution to the world’s environmental and social problems. John Elkington, author of *Cannibals with Forks: The Triple Bottom Line of 21st Century Business* (1999), writes that the triple bottom line helps organizations focus on the economic value they add. Also considered is the
environmental and social value they add or destroy, demanding a whole set of values, systems, and processes that take into consideration the needs of all the organization’s stakeholders—shareholders, customers, employees, business partners, governments, local communities, and the public.

To take sustainability from the abstract concept to its practical form, a sustainable organization is one that creates profit for its shareholders/owners while protecting the environment and improving the lives of those with whom it interacts. While there are those who would believe this integration of priorities does not fit within a capitalist, shareholder value maximization economy, there are others who believe corporate sustainability to be an investable concept.

Launched in 1999, the Dow Jones Sustainability Indexes (DJSI) became the first global indexes tracking the financial performance of the leading sustainability-driven companies worldwide (www.sustainability-index.com). The Dow Jones defines corporate sustainability as “a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments.” The site goes on to assert that corporate sustainability is “crucial in driving interest and investments in sustainability to the mutual benefit of companies and investors. As this benefit circle strengthens, it will have a positive effect on the societies and economies of both the developed and developing world” (Dow Jones Sustainability Indexes, “Corporate Sustainability”).

The DJSI website describes corporate sustainability leaders as ones who “achieve long-term shareholder value by gearing their strategies and management to harness the
market’s potential for sustainability products and services while at the same time successfully reducing and avoiding sustainability costs and risks.” The balancing and integrating of the three different and sometimes competing interests of economics, the environment, and social responsibilities (sometimes referred to as the “triple bottom line”) requires a unique kind of attention and leadership. While much has been written about sustainability, limited attention has been given to sustainability leaders. What are the competencies of a sustainability leader? Are there unique dispositions, skills, or behaviors of sustainability leaders that are not found in other styles of leadership? Does the call for sustainability mark the emergence of a new era in leadership theory?

Fundamental management and strategy practices will be transformed by the pressures of sustainability issues. The Boston Consulting Group conducted a sustainability study in 2009, surveying more than 2,000 business leaders, nonprofit executives, academicians, government officials, and others. One question asked, “Which stakeholder groups most drive embracing of sustainability issues for your organization?” Forty percent of the participants selected “Senior Leadership.” Consumers, Employees, and Government and Regulators were the next three most selected options garnering 18 percent, 12 percent, and 12 percent of the responses, respectively (Berns, et al., p. 62).

With this sort of responsibility resting on current and future leaders, studying the answers to these questions about sustainability leaders is both critical and timely. Timpson et al. describes the critical role that higher education plays in making the sustainability vision a reality, “It prepares most of the professionals who develop, lead, manage, teach, work in, and influence society’s institutions . . .” (2006, p. xii).
Curriculum and pedagogy of a leadership education effort will need to conceptually develop a sustainability ethic in aspiring leaders (Middlebrooks, Miltenberger, Tweedy, Newman, & Follman, 2009). As a result, the findings from this research may serve educators and mentors as they prepare the next generation of leaders for the challenges ahead. Martin and Jucker (2003) asserted that development of a sustainability ethic in aspiring leaders should be one of the most pressing, fundamental priorities of higher education.

**Purpose of the Study**

The purpose of this grounded theory study was to explore the unique dispositions, skills, values, and/or behaviors, referred to collectively as “competencies”, of sustainability leaders in business. Data was gathered from individuals recognized as thought leaders, scholars, and theoreticians of sustainability. At this stage in the research, a sustainability leader will be generally described as an individual who creates profit for his/her shareholders/owners/constituents, while protecting the environment and improving the lives of those for whom he/she impacts as a result of his/her leadership. By design, this study took a Western view of leadership and did not look at sustainability leadership in other types of organizations, including nonprofit, community, and government institutions.

**Research Questions**

Using a critical grounded theory approach (Hatch, 2002), participants were asked to discuss their impressions, opinions, and observations regarding sustainability leader competencies. From their perspectives, they shared what they felt constitutes the
characteristics of an effective sustainability leader. For the purpose of this study, a definition of “sustainability” was provided; however no definition was given to the participants regarding the terms “effective” or “leader”. Rather, participants were encouraged to interpret and explain “effective” and “leader” as they deemed appropriate.

The central question for this grounded theory research study was: How do thought leaders, scholars, and theoreticians of sustainability concepts characterize the competencies of effective sustainability leaders in business? Sub-questions investigated whether sustainability leadership is a style or an overarching philosophy under which other styles may fall. The study also explored whether sustainability leadership is a new or emerging leadership theory.

The findings and analysis from interviews and group discussions with those knowledgeable of sustainability and leadership principles resulted in the development of a grounded theory conceptual model.

**Methodology**

The primary method of investigation was grounded theory (Corbin & Strauss, 2008), a qualitative research method designed to aid in the systematic collection and analysis of data and the construction of a theoretical model. Data, based on transcriptions of semi-structured, in-depth interviews with thought leaders, scholars, and theoreticians on sustainability and leadership (as well as facilitated group discussions and documentary evidence) were analyzed for concepts and context. This analysis identified patterns and a conceptual picture of how the selected participants described the competencies of a
sustainability leader. The goal was to construct a plausible explanatory framework—grounded theory—regarding the qualities found or needed in/by a sustainability leader. Additional information on the qualitative methodology of the study can be found in Chapter 3.

**Definition of Terms**

*Economic Prosperity* - An economic state of growth with rising profits and full employment (Chamber of Sustainability, 2010).

*Environmental Quality* - The status or value of the natural resource capital at a particular location at a specified time, relative to development, environmental management and conservation (Ramjohn, 2000).

*Leader* - Someone who breeds multiple perspectives, who connects consciously these perspectives and who applies a variety of skills in order to establish new directions, options and solutions for his/her organization (Ghani, in *The Leader of the Future*, 2006).

*Leadership* - An influence relationship among leaders and followers who intend real changes that reflect their mutual purposes (Rost, 1991).

*Leadership Philosophy* - Set of beliefs and principles that strongly influence how we interpret reality and guide how we understand the way the world works (Ambler, 2006).

*Leadership Style* - The traits, behavioral tendencies, and characteristic methods of a person in a leadership position (Dictionary of Business and Management, 2010).
Scholar – Someone who by long study has gained mastery in one or more disciplines (Merriam-Webster’s Online Dictionary).

Social Equity - Fair access to livelihood, education, and resources; full participation in the political and cultural life of the community; and self-determination in meeting fundamental needs (Chamber of Sustainability, 2010).

Sustainability - In a general sense, the capacity to maintain a certain process or state indefinitely. In an ecological context, sustainability is defined as the ability of an ecosystem to maintain ecological processes, functions, biodiversity and productivity into the future. In a social context, sustainability is expressed as meeting the needs of the present without compromising the ability of future generations to meet their own needs. When applied in an economic context, a business is sustainable if it has adapted its practices for the use of renewable resources and is accountable for the environmental impacts of its activities (Capozucca, et al., Sustainability for Tomorrow’s Consumers, a World Economic Forum report, 2009).

Sustainability Leader - Reflects an emerging purposeful consciousness. These leaders are choosing to live their lives and lead organizations in ways that account for their footprints on the earth, society, and the health of a global economy (Ferdig, 2007).

Theoretician - Grounded in terms of thought process, has a smaller venue in terms of influence, develops foundation from which a scholar works, conceptual and comprehensive, synthesizes information from multiple resources into a formal train of thought.
Thought Leader - Has more access to communication venues, communicates from experience and opinions.

Triple Bottom Line - As it relates to sustainability, it refers to the consideration and measurement of standards of human dignity, environmental stewardship, and financial profit (Business Strategy for Sustainable Development, 1992)

Assumptions

An underlying assumption of this study is there were identifiable qualities of those individuals who would lead companies with sustainability goals, and thought leaders, scholars, and theoreticians of sustainability have knowledge as to what these traits are. Further, it was assumed that a population of these individuals with knowledge of sustainability was willing to participate in this study.

Delimitations and Limitations

By design, this study of the qualities of sustainability leaders was limited to business leaders. Participants were asked to characterize sustainability leaders in business environments. In addition, the participants were a pre-selected, homogeneous group of noted scholars, thought-leaders, and theoreticians knowledgeable of sustainability. All participants had a Western culture-based view of leadership. Finally, with the focus on business leaders, the findings of the study may not be generalizable to leaders of other types of organizations.
Significance of the Study

Sustainability has been referred to as the defining issue of our times. It affects, and is affected by, business. Whether sustainability concerns are creating a “green” focus for organizations or changing competition—creating opportunities and threats—there are significant implications for business leaders.

A sustainable organization is one that creates profit for its shareholders, while protecting the environment and improving the lives of those with whom it interacts. It operates so its business interests and the interests of the environment and society are integrated and intersect. Increasingly, business leaders are expected to find ways to be part of the solution to the world’s environmental and social problems. This attention to three different and sometimes competing interests may be the impetus for a new era of leadership. This study looked at the disposition, skill, values, and/or behaviors of one who would take on the responsibility to integrate and synthesize priorities of economics, environmental, and social concerns.

While it is highly unlikely that sustainability will be achieved within this generation (or even the next), leadership educators need to be informed of the qualities needed to effect the changes required of a sustainable world. “[Higher education] prepares most of the professionals who develop, lead, manage, teach, work in, and influence society’s institutions” (Timpson et al., 2006, p. xii). In addition, discussion will be opened regarding an emerging era in leadership theory.
This study can significantly assist in preparing the next generation of leaders for the vision and the decisions necessary to synthesize and integrate the needs of the planet, its people, and the economy.
CHAPTER TWO

REVIEW OF LITERATURE

The need to “sustain” the world we live in has been a topic discussed, researched, and written about in political, governmental, corporate, environmental, scientific, economic, and educational circles for nearly 50 years, since the environmental movement of the 1960s and 1970s (See Edwards, 2005; Elkington, 1999; and the International Institute for Sustainable Development’s Sustainable Development Timeline, 2006). In some respects, the study of sustainability is much like the parable of the blind men and the elephant. Having originated in India, this story is used to demonstrate either the relativity or the inexpressible nature of truth. According to the story, a group of blind men touch an elephant to learn what it is like. Each one feels a different part, but only one part, such as the side or the tusk. They then compare notes and learn that they are in complete disagreement. The tale ends with a wise man saying each is correct. This illustrates the principle of harmony among people who have different belief systems.

Various entities approach sustainability from differing perspectives: global warming, water shortage, poverty, species extinction, depleted or depleting natural resources, terrorism, growth and development, etc. The result is differing perspectives on how to address the issues. In the cases of the elephant and sustainability, the stories demonstrate differing belief systems and how truth can be expressed in different ways.

These differing perspectives of sustainability result in a broad review of the literature. What should be sustained, who is responsible, when is it time to change habits, how to change, where should attentions be focused, and who/what should sacrifice?
Added to the review of sustainability literature, is leadership eras/philosophies/styles as this research is focused on the competencies of a sustainability leader. Chapter Two provides a review of the literature as it pertains to the truth of sustainability as viewed by political and governmental entities, thought leaders, theoreticians, and scholars. Also included is a review of the historical eras of leadership up to the present.

**Sustainability – Government**

For all nations, the topic of sustainability has been identified as a priority in numerous political actions and governmental reports for the past 45 years. In 1977, Robert McNamara, president of the World Bank, announced the establishment of a commission comprised of experienced, respected politicians and economists. They would make recommendations on ways of breaking through the existing international political impasse in North-South negotiations for global development. German Chancellor Willy Brandt presided over the commission formed as an Independent Commission on International Development Issues. The Brandt Commission set a comprehensive strategy for food, aid, environment, trade, finance, and monetary reform. The report proposed "that in the long run countries have to strengthen their capability to sustain development through structural transformation" (North-South, 1980, p. 63).

In 1987, the United Nation’s World Commission on Environment and Development (the Brundtland Commission) called for the ecological dimensions of policy to be considered at the same time as the economic, trade, energy, agricultural, and other dimensions. “‘A global agenda for change’—this was what the World Commission on Environment and Development was asked to formulate. It was an urgent call by the
General Assembly of the United Nations” (Brundtland, 1987). The final report, presented to the UN General Assembly, attempted to persuade nations “of the need to return to multilateralism . . . a renewed search for multilateral solutions and a restructured international economic system of cooperation . . . cut[ting] across the divides of national sovereignty, of limited strategies for economic gain, and of separated disciplines of science” (Brundtland, 1987). The report suggested that sustainable development was needed to meet human needs while not increasing environmental problems.

Work related to sustainable development has continued through other United Nations organizations, including United Nations Educational, Scientific, and Cultural Organization (UNESCO) that recently released its *Strategy for the Second Half of the United Nations Decade of Education for Sustainable Development*. UNESCO is taking the recent global financial and economic crisis as an opportunity to propose an alternative future. It emphasizes the role of education in arriving at “sustainable societies” solutions that balance environmental, social, cultural, and economic considerations (2010). The Division for Sustainable Development (DSD) and Commission on Sustainable Development (CSD) are two other United Nation entities focused on integration of the social, economic, and environmental dimensions of sustainable development in policy-making at international, national and regional levels. Other countries, including Canada and the United Kingdom, are now looking at sustainable development from the economic perspective of consumption. Recent reports from the World Economic Forum (Capozucca, et al, 2009), as well as the UK’s Sustainable Development Commission (Jackson, 2009), looks at the difference between economic development and economic growth, and also the limits to growth.
A common theme from governmental reports around the world is there needs to be a change of politics in order to address accelerating deterioration of the human environment and natural resources.

**Sustainability – Thought Leaders**

Since the late 1990s, thought leaders including Peter Senge (2006), Thomas Friedman (2006), Paul Hawken (1999), and John Elkington (1999), have advocated the need for sustainable growth, the involvement of business, and an evolution from human productivity to resource productivity—from corporate capitalism to natural capitalism. They urge corporations to address climate and sustainability issues, and they assert this will continue to be a major factor for the successful management of organizations. Elkington is credited with first coining the term “the triple bottom line” (i.e. social, environmental, and economic considerations) when discussing sustainability. In his book, *Cannibals with Forks* (1999), he asserts, “The sustainable development agenda is in the process of becoming a competitive and strategic issue for major tracts of industry and commerce” (p. 41). Elkington also points out that “sustainable corporations and sustainable markets will rarely evolve of their own accord” (p. 387). He suggests regulation will be essential to efficient and effective markets with the triple bottom line objectives.

Paul Hawken, with Amory and L. Hunter Lovins in their book, *Natural Capitalism*, revealed how the most successful global businesses must draw profit from environmental responsibility. They proposed harnessing the talent of business to solve the world’s deepest environmental and social problems. They first suggested it is not a...
balance between priorities in economic, environmental, and social policy that is in order, but rather integration (1999).

Thomas Friedman, Pulitzer Prize-winning columnist at The New York Times declared in an editorial on January 6, 2006 that “Green is the new red, white, and blue.” In his recent book Hot, Flat, and Crowded (2008), Friedman suggested in this “new world,” governments and companies taking the lead will find themselves with the single most valuable competitive advantage of our time. He proposed the solution to environmental threats is to take the lead in a worldwide effort to replace wasteful, inefficient energy practices with a strategy for clean energy, energy efficiency, and conservation. Economic opportunities shift from information technology to renewable environmental technologies.

In The Necessary Revolution (2008), Senge, Smith, Kruschwitz, Laur, and Schley call for collaboration among business, government, and nonprofit organizations to bring about real, sustainable change. “Today’s world is shaped not by individuals alone, but by the networks of businesses and governmental and non-governmental institutions that influence the products we make, the food we eat, the energy we use, and our responses to problems that arise from these systems” (p. 9). They suggested there is no viable path forward that does not take into account the needs of future generations, and perspectives in thinking are needed. There is a consistent message from these and other sustainability advocates: sustainable development is required for survival—and it will take many individuals, organizations, and nations to elicit the needed changes.
Sustainability – Theoreticians

Sustainability theoreticians are educators, scientists, and economists. They include: Donella Meadows, founder of the Sustainability Institute; Gary Marx, president of the Center for Public Outreach; Amory and L. Hunter Lovins, cofounders of the Rocky Mountain Institute; and John Sterman, head of MIT Sloan’s System Dynamic Group. They broadly define sustainability to include ecological, economic, social, political, and even personal issues.

Dr. Donella (Dana) Meadows, scientist and scholar, was the founder of the Sustainability Institute. She authored or coauthored nine books and wrote a weekly column appearing in more than 20 newspapers called "The Global Citizen," commenting on world events from a systems point of view. Meadows wrote about large, complex, even global-scale systems, the complexity of which can only be modeled by computer software and only partially understood by humans. She was outspoken and critical in her views—including politics. One of her most famous essays, *Places to Intervene in a System* (1997), was an observation that levers exist in complex systems where a small shift can result in big changes. She believed that understanding the levers could solve global problems such as unemployment, hunger, pollution, economic stagnation, etc.

The Sustainability Institute combines research in global systems with practical demonstrations of sustainable living, and it offers a Fellowship Program that aims to "increase the effectiveness of well-positioned sustainability leaders as they learn to address social, economic and environmental issues at their root causes while benefiting
from a national and international network of talented and supportive colleagues” (Sustainability Institute website).

According to John Sterman, MIT Sloan professor and co-leader of the Sustainable Business Lab, “You can’t have a sustainable ecosystem if there’s extreme poverty, if there’s no opportunity for people to meet basic human needs and realize their potential. And of course you can’t have a healthy economy if the result of that economic activity is the degradation of the environment” (In Hopkins, 2007). Sterman, also a systems-analyst, was a follower of Donella Meadows and refers to her views often in his own writing.

The Rocky Mountain Institute (RMI), cofounded by Amory and L. Hunter Lovins, describes its core practice as: solving problems, gaining competitive advantage, increasing profits, and creating wealth through the more productive use of resources. Amory is the Chairman and Chief Scientist at RMI, and is widely considered among the world’s leading authorities on energy—especially its efficient use and sustainable supply (Rocky Mountain Institute website). The Lovins were co-authors with Paul Hawkins in writing Natural Capitalism. In an article published in the Harvard Business Review (May/June, 1999) on the topic of natural capitalism, they wrote:

Most businesses are behaving as if people were still scarce and nature still abundant . . . but the pattern of scarcity is shifting. . . Production is increasingly constrained by fish rather than by boats and nets, by forests rather than by chain saws, by fertile topsoil rather than by plows. Moreover, unlike the traditional factors of industrial production—capital and labor—the biological limiting factors cannot be substituted for one
another. . . No technology or amount of money can substitute for a stable
climate and a productive biosphere. Even proper pricing can’t replace the
priceless (p. 158).

One point in common from the theoreticians reviewed is they look at both the
threats, as well as the opportunities related to sustainability: short-term costs and
untapped passion to “fix” the problem, respectively.

**Sustainability – Scholars**

While many of the individuals mentioned thus far are certainly scholars in
addition to their pursuits outside of educational institutions, their peers have only recently
embraced sustainability as a topic worthy of research and publication. Included in this
group are such noted individuals as Benjamin Redekop, former chair of Leadership
Studies at Kettering University; Stuart L. Hart, director of the Corporate Environmental
Management Program at the University of Michigan Business School; Vandana Shiva,
whose work highlights the fundamental connection between human rights and protection
of the environment; and Michael Fullan, former dean of the Ontario Institute for Studies
in Education at the University of Ontario.

Some scholars are focused on particular aspects of sustainability, such as human
dignity, women’s rights, and potable drinking water for all (Shiva, 2005); environmental
and natural resources (Hawken, Lovins, & Lovins, 1999). Others write about
sustainability within specific disciplines, such as education or business (Fullan, 2005;
Hart, 2007). Some are anti-leadership in their views, or that a concept as large as
sustainability is best addressed by teams or communities (Edwards, 2005).
Redekop (2010) and McCann (2010) are two of the few scholars and educators writing specifically about the leadership aspect of sustainability, “Rather than spending time cataloging and bemoaning the myriad environmental problems that we face, [we] seek to understand the leadership dimensions of achieving sustainability” (Redekop, p. 1). Jack McCann, along with Roger Holt, conducted a study analyzing the interpretation of sustainability in order to develop a sustainable leadership definition for gauging employee perception of sustainable leadership in organizations (p. 204). Others making contributions to an “Eco-Leader discourse” include Western (2008), Bolman and Deal (1994), Carlopio (1994), and Shrivastava (1994). Scholars writing about sustainability come from various disciplines: theology, leadership, history, natural resources, science and environmental education, eco-tourism, real estate, psychology, literature, public health, and conservation. This multi-disciplinary approach to the study of sustainability is much like the analogy of the blind men and the elephant previously described. Each is an expert in the area they are touching, but no one is standing back and seeing the entire elephant. Truth is stated in different ways.

An indication that sustainability as a priority for businesses is evident in its recent attention by such organizations as The Korn/Ferry Institute. According to their web site: “The Korn/Ferry Institute generates forward-thinking research and viewpoints that illuminate how talent advances business strategy” (http://www.kornferryinstitute.com/about_us.php, 2011). Since its founding in 2008, the Institute has published articles, studies and books that explore global practices in organizational leadership and human capital development, with a goal to elevate and enhance understanding of critical issues facing senior management today. They have
dedicated one of their self-categorized industry segments as “sustainability”, where they discuss the emerging needs of business, education and nonprofit enterprises in the acquisition and development of talent in the sustainability arena. Through their research, they describe competency and capability profiles for key roles in today's evolving marketplace from the chief sustainability officer to the boardroom. In advance of a presentation at the Sustainability Conference in April, 2011, Dutra, Everaert, Fust, & Millen published the paper, *Leadership Styles that Drive Sustainability*. The paper summarizes their findings from analyzing leadership characteristics for the leadership style, thinking style, and emotional competencies required of those who are also sustainability leaders. While looking at sustainability leader competencies from the perspective of employers and corporate vision is unique, it is also valuable and unique.

This study integrates the varying descriptions of the qualities needed to lead a sustainable project or organization. The people who are describing their part of the elephant will be interviewed, and the result is a conceptual model of the whole.

**History of Leadership**

By studying history and events during various periods, and their relationship with leadership theories of the past, sustainability leadership can be contemplated as an emerging style and process. Social, economic, cultural, or environmental changes result in new effective leadership styles. John W. Gardner, in his contributed chapter to the *Jossey-Bass Reader on Educational Leadership* (2007) wrote: “[H]istorical forces create the circumstances in which leaders emerge. . . .” (p. 22). Perhaps the concerns leading to the “sustainability revolution” create the circumstances for a new leadership era.
While the labels for the eras may differ depending on which scholar is writing about them, characterizations of the periods have been consistent. Van Seters and Field (1993) identified 10 distinct leadership eras. Western (2008) characterized different leadership periods as “discourses,” and he identified four in the 20th century and how they corresponded with events of the time. These discourses fit within Van Seters’ and Field’s eras.

Figure 2.1 presents a brief overview of leadership research approaches within Van Seters’ and Field’s distinct eras, framed within Western’s discourses. The eras include: Personality, Influence, Behavior, Situation, Contingent, Transactional, Anti-Leadership, Culture, Transformational, and a 10th emerging era. See Figure 2.1 for a model that integrates the eras and discourses. It demonstrates that historical forces create the circumstances in which leaders emerge. Discussion of the eras follows the model.
Figure 2.1: History of Leadership Eras

- **Personality Era**
- **Influence Era**
- **Behavior Era**
- **Situation Era**
- **Contingent Era**
- **Transactional Era**
- **Anti-Leadership Era**
- **Culture Era**
- **Transformational Era**

<table>
<thead>
<tr>
<th>Era</th>
<th>Time Period</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn of 20th century</td>
<td>Until post WWII</td>
<td>Industrial Revolution, Workers treated like ‘Commodities’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1930-1980</td>
<td></td>
<td>Human Relations and Motivation focus, Fear of Dictatorship or Socialist Reactions</td>
</tr>
</tbody>
</table>

**Emerging Era**
The Personality Era

The first era of the 20th century in Western cultures is characterized by the Great-Man and the Trait theories. In the 19th and early 20th centuries, Great-Man theories assumed the course of human history and the evolution of societies were due to the personal traits held by men of extraordinary character. Leaders were “born, not made,” and it was assumed leaders were endowed with inherited superior qualities that gave them influence over the masses without regard to situational contexts. Examples of leaders of this period include Moses and Thomas Jefferson (Borgotta, Rouch, & Bales, 1954; Galton, 1869; Bowden, 1927; Bass, 1985). During the Trait Period in the early 20th century, attempts were made to develop general traits that would enhance leadership potential and performance. Later, this view was modified from traits to behaviors that characterize leaders (Smith & Peterson, 1988; Bingham, 1927; Jenkins, 1947; Fiedler, 1964, 1967; House, 1971).

The Influence Era

This era recognized the relationship between leader and followers. Power relations and persuasion were characterized during this era. Top-down influence in the form of coercion, and dictatorial, authoritarian, and controlling characteristics were prevalent (French, 1956; French & Raven, 1959; Schenk, 1928).

The Personality and Influence Eras emerged at the turn of the 20th century and continued until post World War II. The primary objective during this time period was to control resources to maximize efficiency (Taylor, 1911). “Taylor’s ideas informed the
teaching of the Harvard Business School in the early part of the 20th century” (Western, 2010, p. 38). Western characterized this as the “Controller Discourse.” Efficiency and scientific management, as part of the industrial revolution, were required for mass consumption and the modernism culture of the time. During this period, workers were treated as commodities—easily replaceable, with dehumanizing consequences.

From 1930 to 1980, the United States dominated the economic market. Business schools were held in high esteem and had great influence on organizations. Human relations and motivation were the focuses for leaders, resulting in personnel departments being established or expanded. This discourse period, described as the “Therapist” (Western, 2008), emerged post-World War II. There was a fear of right-wing dictatorships or socialist reactions if poor worker treatment from the Controller period continued. During this time period, theories resulting from the Ohio State and Michigan studies, Theory X and Y, Path-Goal Theory, Leader-Member Exchange, among others, were developed and introduced. Workers were seen as individuals who brought their unique identities to work. Critics of this discourse point to a Western bias of individualism (as opposed to collective culture) and perhaps a hidden agenda of manipulation. This discourse period enveloped the Behavior, Situation, Contingent, Transactional, and Anti-Leadership Eras described below.

The Behavior Era

The Behavior Era resulted from the view that leadership was more than just traits, and included behaviors that could be learned (Lewin, Lippitt, & White, 1939). Some of the theories emerging from this era include Reinforced Change Theory (Bass, 1960),

**The Situation Era**

This era emerged as generalizable conclusions failed to take account of the circumstances within which leadership acts occurred. Situational aspects such as the type of task, position of power, and external environment determined the kinds of leader traits that will be most effective (Bass, 1981; Hook, 1943; McCall & Lombardo, 1977; Stogdill, 1959; Trist & Bamforth, 1951).

**The Contingent Era**

In the Contingent Era, leadership was recognized in not one, but all of the elements of behavior, personality, influence, and situation. Popular from this period were the Contingency Theory (Fiedler, 1964), Path-Goal Theory (Evans, 1970), and Normative Theory (Vroom & Yetton, 1973). “Despite the fact that more research effort has been exerted in that era than in any previous era, those theories generally seem to have limited utility . . . there was still little understanding of the nature of interactions” (Van Seters & Field, 1993, p. 35).

**The Transactional Era**

It was during the Transactional Era that role differentiation and social interaction became recognized as important for leaders. It is similar to the Influence Era in that
influence between the leader and subordinate was addressed, but was different in that the Transactional Era identified the reciprocal nature of leader and subordinate. For example, the Leader-Member Exchange theory (Dienesh & Liden, 1986; Graen, Novak, & Sommerkamp, 1982) involves transactions between the leader and subordinates that affect their relationships. Also considered is the leader may have different relationships with different subordinates. Other leadership theories from this era include Vertical Dyad Linkage, Reciprocal Influence Approach, Social Exchange, and the Role-Making Model (Van Seters & Field, 1993).

**The Anti-Leadership Era**

This era arose as attempts with inconclusive results were made to test various theories presented to this point in time. It was argued that leadership was only a “perceptual phenomenon in the mind of the observer” (Mitchell, 1979). Pfeffer (1977) wrote an influential article “The Ambiguity of Leadership” that described the leader as merely a symbol. Some writers and researchers of the period described the concept as the “romance of leadership” (Meindl, Ehrlich, & Dukerich, 1985).

The late 1970s and early 1980s were defined by hostile takeovers, leveraged buyouts, and megamergers, resulting in a new breed of billionaires. Science and technology made significant strides. College freshmen were more interested in status, power, and money than at any time during the past 15 years. Business Management was the most popular major. It also was a time of double-digit inflation and the rise of Asian economies that began to outperform the U.S. in production. Quality became more a rallying cry than quantity of work. It was suggested during this time if a leader could
create a strong culture in an organization, employees would lead themselves (Manz & Sims, 1987).

The Culture Era

Following the Anti-Leadership Era, the Culture Era brought forth the concept that leadership was not a phenomenon of the individual, the dyad, or even the small group—but rather of the culture of the organization (Van Seters & Field, 1993). This leadership paradigm advocated passive leadership.

Coincidence or not, the rise of Christian fundamentalism in the U.S. happened at the same time as the rise of the Transformational Era (Western, 2010). This era called for proactive leadership, offering vision and passionate leadership. Transformational leaders were characterized as radical, innovative, creative, and open to new ideas (Bass, 1985). Successful companies were described as having cult-like environments, with the organization thought of as a community (Western, 2008; Peters & Waterman, 1982; Kunda, 1992). Transformational leadership dominated leadership thinking between the late 1970s and 2000. “It then fell into decline as it wasn’t delivering the promised land, and the hubris of evangelical leaders and their vision statements were seen to be a façade” (Western, 2010, p. 41).

The New Era

A new era is emerging—perhaps as a result of the “realization that the existing era of understanding was inadequate to explain the leadership phenomenon, and poorly adapted to serve useful practical application” (Van Seters & Field, 1993, p. 39). Possibly in the spirit of Clare Graves, Chris Cowan and Don Beck and their theory of Spiral
Dynamics, changing life conditions have generated sufficient problems which are reshaping the predominant worldview (Beck & Cowan, 2006). With this change in worldview comes a new and emerging leadership style. The advent of the 21st century has us facing “climate change and the realization that our natural resources are finite and fast disappearing, a financial and economic crash, a scientific and technological revolution, a growing population, and an economic and international power shift” (Western, 2010, p. 41).

Do these three forces create circumstances in which leaders emerge: (1) quantum physics and new science that takes a more holistic view (Wheatley, 2006), (2) globalization and technological advances, and (3) the environmental social movement? Are we entering a new era of leadership? What are the qualities of that emerging leader? This study picks up where preceding literature left off and explores the possibility of an emerging 10th era of leadership and the qualities of this contemporary leader, as depicted in Figure 2.2.
Figure 2.2: Sustainability and History of Leadership Eras
CHAPTER 3

METHODOLOGY

Views of the participants in this qualitative study were relied upon in the context in which they occurred, to inductively develop ideas from particulars to abstractions.

Qualitative Tradition – Grounded Theory

The primary method of investigation was grounded theory (Corbin & Strauss, 2008, p. 9), a qualitative research method designed to aid in the systematic collection and analysis of data and the construction of a theoretical model. A grounded theory approach was selected as this study drew upon sociology and was designed to generate a broad description of traits and/or behaviors of a sustainability leader. The theory explains how the participants characterize a sustainability leader. Data, based on transcriptions of semi-structured, in-depth interviews and documentary evidence, were analyzed for concepts and context to identify patterns and a conceptual picture around the nature of a sustainability leader. The goal was to construct a plausible explanatory framework—grounded theory—about the opinions and experiences of the participants. In-depth, detailed data were collected from approximately 50 participants. Codes were developed, resulting in categories and, eventually, themes. While not generalized, certain themes resulted from the purposeful sample. Propositions were then generated from the data. Narratives of the participants’ experiences also were analyzed. The primary researcher kept field notes and journals throughout the data gathering and analysis phases of the project, and used memos to aid in theory formulation.
Selection Criteria of Participants and Sampling Method

Participants included thought leaders, scholars, and theoreticians of sustainability and/or leadership. An initial list of over 50 possible participants was developed. Three criteria were used in participation selection: ease in recruitment, balance among participants, and balance among perspectives/priorities. Ease in recruitment relates to the participants’ likelihood to participate, simplicity of logistics, and timely availability. Balance among participants’ roles of scholar, theoretician, or thought-leader was also a consideration. Finally, representation was sought from the environmental, social, and financial perspectives.

Research participants were recruited through common contacts, referral by others, introductions at sustainability conferences, and by invitation. Interviews were conducted with a maximum variation of participants in terms of involvement with sustainability. The purposeful sample of 50 individuals has researched or written about sustainability. Or they identified themselves as sustainability leaders, exhibited traits of being sustainability leader, or were affiliated with organizations that have sustainability as a priority.

The participants were selected to represent different types of organizations and emphases. While the group was homogeneous in its prioritization of sustainability, the participants represented a maximum variation in the types of organizations and interests in which they were involved. This maximum variation was intended to generate different perspectives of character traits, behaviors, values, or dispositions of sustainability leaders. Differing perspectives were welcomed at this stage for purposeful, heterogeneous sampling in the next phase of research when the developed theory was to be saturated,
confirmed, or disconfirmed. Many of the authors cited in this paper were invited to participate in the research.

**Entry into the Field**

The researcher approached each participant, made an introduction, and explained the purpose and scope of the current research. At this time, each participant was invited to participate in the study. An Informed Consent Letter was provided to each participant. The letter detailed the purpose of the study, procedures, possible risks and benefits, financial considerations, confidentiality, termination of the study rights, and resources. Participants were then asked for permission to proceed with the study. All participants in the study waived their rights to confidentiality, and gave permission for their names to be used. A copy of the Informed Consent Letter can be found in Appendix A. All preliminary and introductory conversations and interviews were held either face-to-face, over the telephone, or electronically via Skype.

Interviews lasted anywhere from 45 to 90 minutes. Each of the participants, after some general conversation regarding sustainability, were asked four questions. The questions were provided in advance, as well as asked during the interview. The questions included:

1. How do you characterize sustainability leaders?

2. What are the competencies of a sustainability leader in a business setting?

3. Is sustainability leadership a style or a philosophy?
4. Is sustainability leadership part of a new era?

Additional prompting questions emerged, including a discussion of how to teach sustainability in a business or leadership course. For each interview, these questions were used to further illuminate participants’ responses. The researcher’s responses included active listening and empathic reflection as needed to improve the quality of the discussion. All interviews were audio taped, transcribed verbatim by a hired transcriptionist, and coded for themes.

Multiple data forms were collected. The use of a theoretical sampling approach was utilized to collect data. Included were: detailed, semi-structured, open-ended interviews, supplemented by a study of documents, articles, and/or books on the subject of sustainability. In addition, the researcher attended several sustainability conferences and organized sustainability leader discourses to observe participants, gather data about the organizations and people involved and interested in this movement, and to establish contacts. The additional data forms created context for discussion during the interviews, provided an introduction to prospective research participants, and enriched the final report with the information gained.

**Protocol**

An interview protocol was used, including the project name; date, time and place of the interview; and interviewee’s name and position. In addition, a brief description of the project was contained in the protocol, with the four planned questions. The Interview Protocol can be found in Appendix B.
Research was focused on data gathering from the interview and group discussion participants. The interviews were conversational and provided for introspection and reflection by the participant. Questions were provided in advance, and topical discussion ensued prior to the audio-taped interviews.

**Data Analysis and Writing**

During data analysis, the researcher immersed herself in the data. Techniques included several iterations of sorting, coding, writing memos, and comparing. After all interviews were transcribed, an initial reading of the narratives was the first step in the process. The transcripts then were open coded by analyzing section by section of the text. Corbin and Strauss (2008) describe open coding as “breaking data apart and delineating concepts to stand for blocks of raw data” (p. 195). To minimize researcher bias, six preliminary categories, emanating from the Korn/Ferry Institute research study, were employed. Korn/Ferry International has analyzed the leadership characteristics of more than 1.3 million executives across all sectors and geographies (Dutra, Everaert, Fust, & Millen, 2011). These categories were later amended, with some new ones added and others eliminated. The language of the participants guided the development of final code and category labels, i.e. *in vivo* codes. The open codes were identified from the transcripts and compared and contrasted. See Appendix C for an example of the codes and categories.

Next, the researcher returned to the data to engage in axial coding for the purpose of determining causal conditions, context, intervening conditions, strategies, and consequences to the central phenomenon. Corbin and Strauss define axial coding as
“crosscutting or relating concepts to each other” (p. 195). (The axial codes discovered are discussed in Chapter Four, Report of Findings). Finally, the researcher developed a series of visual models from the propositions resulting from additional selective coding, revealed in Chapter Four.

Throughout the saturation process of open, axial, and selective coding, the researcher wrote analytic and self-reflective notes for further understanding and to document and enrich the process—making implicit thoughts explicit. These notes consisted of questions and reflections about the data, as well as personal reactions to participants’ narratives.

**Validation**

Five different validation techniques were employed for the study. Prolonged engagement and persistent observation in the field took place from 2009-2011. In addition to the face-to-face interviews, the researcher attended several sustainability conferences and participated in quarterly Sustainability Leadership Discourses during the time period of the study. The researcher listened to presentations, made contacts, and observed behaviors of the individuals in attendance in order to thoroughly immerse in the subject.

Dozens of peer-reviewed articles from scholarly journals and popular press books were studied both before and after data collection. This, in conjunction with discussions with experts in the field, provided for a triangulation of data and corroborating evidence. Peer review was another technique employed for validation of the findings. In this case, a debriefing provided an external check of the research process. The peer debriefers were
asked to act as “devil’s advocates” and ask hard questions about methods, meanings, and interpretations. The researcher kept written accounts of the session. The reviewers, comprised of four faculty members from the University of Nebraska-Lincoln, were familiar with sustainability and/or leadership theories and practice. They were supportive of the resulting grounded theory, and they provided additional perspectives correlating with existing leadership models and sustainability applications. Refer to Appendix D for the list of participants and notes from the 90-minute session.

The researcher took the data, analyses, interpretations, and conclusions back to the participants for a member-check to ensure accuracy and credibility of the critical observations, findings, and interpretations. As a final validation step, an external auditor was asked to code one of the interview transcripts and compare it with the researcher’s coding. The auditor’s report can be found in Appendix E.

The validation process served to assess the accuracy of the findings. The process included the five strategies: extensive time spent in the field, triangulation, peer review, member checking, and an external audit.

**Researcher Philosophy, Worldview, Paradigm, Beliefs and Biases**

I selected qualitative methodology research for this study as it was best suited for the ontological and axiological philosophical assumptions made regarding sustainability. First, I believe there are unique qualities that a leader with a sustainability ethic demonstrates. This reality is subjective and possibly multiple, as seen by the participants in the study. As the review of the literature has shown, there are many differing definitions of sustainability. There also are differing views of how to sustain our planet—
or if such a need even exists. As such, the researcher embraced differing realities as described by the participants and used quotes and themes in their words, as well as provided evidence of potentially different perspectives.

As one who shares the belief that there is a need for a new style of leadership to successfully deal with the global issues discussed in this paper, I maintain an axiological philosophy and a set of values that will shape the narrative and interpretation of findings from the research gathered. It is possible to “meet the needs of the present without compromising the ability of future generation to meet their own needs” (United Nations, 1987, ¶ 2). To lead sustainable efforts, it is necessary to value the environment, human conditions in all parts of the world, and the quality of life for future generations. This was a value-laden study.

Taking a social constructivist view during the research, I developed subjective meanings of the participants’ experiences. I observed a complexity of views, as opposed to a narrow meaning or description of leadership qualities. As such, a theory and model of sustainability leadership was constructed from the participants’ views. Questions were intentionally broad to allow the participants to construct their own meanings as they related to the process of leading with a sustainability ethic.

As this study was intended to reveal a new and emerging leadership style, based on world events and global concerns, a postmodern perspective was used. Knowledge claims were set within the conditions of the world we live in today—with concerns for the environment, the needs of developed countries seemingly taking precedence over the
needs of lesser-developed countries, and the needs of the current generation taking precedence over the needs of future generations.
CHAPTER 4

REPORT OF FINDINGS

The purpose of this qualitative study was to explore the competencies of sustainability leaders. Using a grounded theory approach to move beyond description and to discover a theory (Creswell, 2007), this study was grounded in data from participants who have worked with sustainability initiatives, individuals, and/or organizations. The central question for the study was: How do you characterize sustainability leaders in a business setting? The sub-questions for this study included:

- What are the competencies or qualities of a sustainability leader in a business setting?
- In your opinion, is sustainability leadership a style or philosophy?
- Have you considered if sustainability leadership represents a new, emerging leadership era?

A total of 10 individuals were interviewed. They shared their experiences and views of those who would lead a sustainability initiative or organization. Creswell (2007) recommends providing important contextual information in a grounded theory study. He asserts, “A hallmark of all good qualitative research is the report of multiple perspectives that range over the entire spectrum of perspectives” (p. 122). With this in mind, three group discussions regarding sustainability leaders were also conducted and facilitated. Approximately 50 individuals participated who had studied, and were familiar with, sustainability. See Table 4.1 below for demographics of all study participants.
### Table 4.1: Study participants and their affiliations

<table>
<thead>
<tr>
<th>Individuals</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Ferdig, Ph.D.</td>
<td>President, CEO - Sustainability Leadership Institute.</td>
</tr>
<tr>
<td>Taylor Keen, MBA, MPP</td>
<td>Tribal Council Member – Cherokee Nation. Instructor at Creighton University.</td>
</tr>
<tr>
<td>Ronald Nielsen</td>
<td>General Manager, Global Sustainability – Cliffs Natural Resources, Inc. Founder, Senior Director – International Centre for Business Innovation and Sustainability, Montreal, Canada.</td>
</tr>
<tr>
<td>James Pittman</td>
<td>Director of Sustainability, Prescott College. Professional consultant serving: government, business, industry, non-profit, tribal, and other community stakeholders.</td>
</tr>
<tr>
<td>Tim Rouse</td>
<td>President, Co-Founder – FGI International, specializing in leadership development for the global economy.</td>
</tr>
</tbody>
</table>
### Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Cecil Steward</td>
<td>Professor and Dean emeritus of the College of Architecture at the University of Nebraska-Lincoln. Founder of the Joslyn Institute for Sustainable Communities. Author of <em>Sustainable Communities</em> and <em>Sustainometrics, Measuring Sustainability.</em></td>
</tr>
<tr>
<td>Stephen B. Young</td>
<td>Global Executive Director – Caux Round Table. Author, <em>Moral Capitalism.</em></td>
</tr>
<tr>
<td>Wisdom Community</td>
<td>U.S.-based group of professionals, educators, community leaders, and artists, whose role is to provide informed, purposeful, and effective leadership in our organizations, families, society, and our world.</td>
</tr>
<tr>
<td>(23 Participants)</td>
<td>March 31, 2011</td>
</tr>
<tr>
<td>Sustainability Leadership Exploration Dialogue Group</td>
<td>Progressive Omaha thinkers representing a diverse array of perspectives and experiences whose work affirms and sustains the sanctity of human life today and for future generations.</td>
</tr>
<tr>
<td>(20 participants)</td>
<td>March 23, 2011</td>
</tr>
<tr>
<td>University of Nebraska-Lincoln Agricultural Leadership, Education and Communication Graduate Round Table</td>
<td>Masters and Doctoral students and professors from the Department of Agricultural Leadership, Education and Communication.</td>
</tr>
<tr>
<td>(6 participants)</td>
<td>December 4, 2009</td>
</tr>
</tbody>
</table>

The qualitative analysis from the interviews regarding the sustainability leader competencies involved open coding into categories that emerged from the data. An example of the codes and categories can be found in Appendix C. From here, insight into specific coding categories that related to, or explained competencies, of sustainability leaders resulted from axial coding. At this point, the researcher became “stuck.” What were the implications from these rows and columns of categories and codes? What was the central phenomenon? Was there an “a-ha,” in here, or a “so what?”
The researcher met with Dr. Jody Woodworth, a fellow scholar and mentor, and I described my research and findings; shared observations; answered questions; and in a cathartic fashion, talked through what I felt were significant points. We literally turned the pages sideways and looked at the data from different angles and perspectives. We drew pictures of various aspects of the findings, but nothing cogently came together. We came to no conclusion during our hour together, but we discussed next steps. Several nights after the meeting, I had a restless night of sleeping an hour, waking for an hour, sleeping an hour, etc. During one of the waking hours, many of the “puzzle pieces” formed an early draft of the grounded theory models, presented later in the section. First thing the next morning, I roughly sketched the multi-level models. Then I went back to the data to test and eventually fine-tune the graphic depiction of the grounded theory related to competencies of sustainability leaders.

Ultimately, four major thematic categories with subcategories under each emerged. The four major themes were: (a) thinking style, (b) positive psychological constructs, (c) sustainability leader roles, and (d) dimensions of sustainability leader competencies. The subcategories within sustainability roles are: (c-1) advocate, (c-2) process-responsible, and (c-3) outcome-driven. Finally, the subcategories within dimensions of leader competencies were divided among the categories of: (d-1) knowledge, (d-2) skills, (d-3) style, (d-4) method, and (d-5) mission-criticality. These themes and sub-categories give insight into the complexity, and multi-dimensions of competencies participants believed were important for sustainability leaders.

This chapter focuses on the context and antecedents, intervening conditions, central phenomenon, strategies, and consequence as interpreted from the data and related
to sustainability leader competencies. It presents a new way of thinking about being a leader—complex in that the model recognizes there is more than one way to be a sustainability leader.

**Context and Antecedents in which Sustainability Leader Competencies Develop**

Sustainability has been depicted in several different visual models. Perhaps the most common model is three intersecting circles representing planet, people, and profit, as shown in Figure 4.1 below (Systain.ca, 2011). The circles are sometimes depicted as environment, society, and economics. The placement is not always consistent in the models, nor is the color consistent or representative of any special meaning. In all cases, the circles are of same size and intersect equally.
Figure 4.1 Traditional Model of Sustainability
Sustainability goals represented by the three circles have been defined as meeting a “triple bottom line” comprised of environmental stewardship, standards of human dignity, and financial profit. This model is applicable to two different contexts or analysis: that of an individual and/or that of an organization. During the interviews with Andy Savitz and Ron Nielson, the idea was made apparent that attributes and actions can be different if talking about an individual or an organization. Savitz is writing a follow-up to his book, The Triple Bottom Line, and Savitz had listened to Nielson talk about his view of qualities of a sustainability leader. At one point, Savitz interjected, “In the book, I’m trying to define organizational capacities or capabilities . . . and I’m not sure how they relate to these personal qualities that you’re talking about, which to my mind are very abstract. . . .” The study of leadership competencies for purposes of the current study is embedded within the individual (business leader) context.

An important finding from this study of competencies required to lead a sustainability initiative or organization is an individual’s purpose. William Damon, director of Stanford University's Center on Adolescence and leading scholar of human development, along with Jennifer Menon and Kendall Bronk, defined purpose as "a stable and generalized intention to accomplish something that is at once meaningful to the self and of consequence to the world beyond the self" (2003, p. 121). The grounded theory model for sustainability leader competencies developed from the present investigation has the overlap of three circles (which is usually captioned as sustainability) depicted as purpose (see Figure 4).

Participant James Pittman’s observation and work with sustainability leaders led him to the conclusion that a sense of purpose is emerging. “I’ve interviewed folks and
showed them the cards of the triple bottom line: environmental, social, economic. I ask them if there’s one domain that they would add to sustainability that is important, but not captured by these words. It’s a sense of purpose that we have as individuals and organizations or as a civilization.” Cecil Steward described sustainability as neither a philosophy nor a style but rather a mission. Steve Young characterized it as follows, “You’ve got to have something inside you that enables you to confront and overcome materialism, commercialism, fear, pressure of your peers, the demands of hierarchy. You have to have a sense that you really have a place that’s you.” Purpose, sometimes described as a mission or “something inside you,” would appear to be at the center—at the heart—of sustainability, transcending the three pillars.

Two antecedents emerged from the data that ultimately led to a certain phenomenological experience related to sustainability leadership competencies. These antecedents were (a) thinking style and (b) positive psychological constructs. Each is described in greater detail in the following paragraphs.

**Thinking Style**

Thinking style was an original category during open coding. It refers to how information is used, how hypotheses are generated, as well as the variables and data considered. What was apparent throughout all narratives pointing to this theme was participants characterized the style as holistic or systems thinking. Systems thinking was originally discussed by Hungarian biologist Ludwig von Bertalanffy in 1928. He proposed that a system is characterized by the interactions of its components (1968).
Then in 1987, James Gleick chronicled the development of chaos theory and the interconnectedness of all things in his book *Chaos: Making a New Science*, making the “butterfly effect” a household phrase and expanding systems thinking to the global. Peter M. Senge, senior lecturer at the MIT is widely known as one of the most innovative thinkers about management and leadership in the world. His work on human values in the workplace suggested that vision, purpose, reflectiveness, and systems thinking are essential if organizations are to realize their potentials (2006).

While described in different ways, nearly all participants in the study felt that holistic or system thinking was required of a sustainability leader. Ferdig, Steward, and Simmons characterized it as holistic thinking. Young and Pittman referred to it as complex systems thinking. Pittman had this to say, “It’s absolutely essential to have some sort of systems thinking.” Rouse described it as an “awareness of all impacted.” Nielson, referring to system design engineering he took in college said, “I draw from that. We live and work and play in a whole set of interrelated systems . . . You may have some environmental issues, you could have climate changes, you could have certain emissions or waste related issues, hazardous materials. If each of those gets treated as an independent challenge and not linked to a broader set of considerations, you limit what your response is. . . .”

A systems thinking was initially thought to be the central phenomenon because of the reoccurrence of the theme. During axial coding however, it became apparent that a systems thinking was an antecedent to the competencies of a sustainability leader.
Positive Psychological Constructs

The second antecedent to sustainability leader competencies—positive psychological constructs—comes from a relatively recent branch of psychology whose purpose was summarized in a paper by Martin Seligman and Mihaly Csikszentmihalyi (2000). They posed these constructs included values, virtues, and talents. According to the University of Pennsylvania’s Positive Psychology Center, the aim of positive psychology is to use scientific methodology to discover and promote the factors that allow individuals, groups, organizations, and communities to thrive (2010). The subject area is concerned with optimal human functions or improved human functioning.

Two early categories to emerge from the data in this study were emotional competencies and values, including passion and conviction. Emotional competencies have to do with a tolerance for ambiguity, humility, and learning from others. Existing and emergent codes and categories were compared and contrasted during the analysis and interpretation phases of the research. The category was modified to accommodate the data, producing a new and re-labeled theme of “positive psychological constructs.”

Participants described certain sustainability characteristics, including: hope, integrity, intention, respect, stewardship, virtuosity, thoughtfulness, compassion, honesty, bravery/courage, thankfulness, spirituality, accountability, inclusiveness, and servitude. Taylor Keen, Tribal Council Member of the Cherokee Nation, likened sustainability competencies to the Odawa and the law of order, “There are seven grandparents that go along with it, seven attributes . . . love, truth, humility, honesty, bravery, respect and wisdom. The chief among them is humility.” Steve Young characterized leadership as a
“skill of mindfulness”, and that the character traits needed “are a pathway to mindfulness”:

You know, if you were thoughtful, if you were prudent, if you were virtuous, if you were compassionate, if you have self-control . . . all of those things get your mind in a particular place of mindfulness and when you're being mindful of the decisions you make, reflect this complexity.

All participants had at least one code within this theme; it was universally referenced. Like systems thinking, further analysis suggested these positive psychological constructs are antecedents to sustainability leader competencies. They are part of the context, or the soul, of an individual who would lead a sustainability organization or initiative.

As a new domain of inquiry, theory and research involving positive psychology is still emerging. As individual characteristics, it fits well with research conducted by Luthans and Youssef (2007) on positive organizational behavior. “Positively oriented human traits, states, organizations, and behaviors may have a substantial positive impact on performance and other desired outcomes beyond what material resources, classic business models, and deficit-oriented approaches can offer” (p. 323), and it seems appropriate in the study of an arguably emerging leadership style.

With the addition of the context and antecedents as presented, a complementary and expanded model for sustainability might look like the one depicted in Figure 4.2. Here, purpose is identified in the integration of planet, people, and profit; the antecedents of systems thinking style and positive psychological constructs are added.
Figure 4.2: Antecedents to Sustainability Leadership Competencies
Intervening Conditions Influencing Sustainability Leader Competencies

The data indicates the role a sustainability leader plays will influence, or determine, strategies for the necessary leader competencies. In other words, there is more than one persona for a sustainability leader. Andy Savitz made the point there is a difference between leading sustainability and leading an organization with a sustainability perspective. Nielsen provided this delineation:

You need someone who can do the promotion and the selling and the pulling people in and creating the setting in which you can get your efforts up and running . . . has the vision and can sell it. For the organizational leader, you need someone who is first and foremost a really good leader. Then has the empathy and open-mindedness to bring in the sustainability points of view, bring them in, balance them with the other objectives they have to keep the organization successful. . . . As the sustainability leader, you’re limited . . . your mandate is for sustainability being imbedded in the organization. Your leadership dimension, the dynamic that you employ is going to be different than if you have overall responsibility. You’re going to weight the collaborative side more and the engaging people more . . . versus the leader of the overall organization who is balancing the overall health and liability of the organization. . . . You may be being very innovative and finding opportunities to bring sustainability to play and setting expectations and the like. You’re always doing that balance with the overall benefit of the organization.
Analysis of the data revealed this new way of thinking about sustainability leadership as the intervening condition of the study: the differing roles a sustainability leader plays. Some participants identified mission-critical competencies, such as improvising and leading “by the seat of your soul” (Ferdig), having a willingness to persevere and to be particularly good at crisis management (Steward), and demonstrating commitment to the long-term (Young). It was difficult to see how one individual, in one role, married these qualities with being an internal networker, a catalyst, an innovator, disruptor, instigator, and incubator as described by Stuart Hart. Nielson said the leader needed to be good with ambiguity, able to execute, have good communication skills and be able to build relationships and partnerships. Interpersonal communication skills, project management, and conflict resolution are skills needed, according to Pittman. It does not seem possible to find all of these traits, skills, qualities, behaviors, competencies in one person, one role. As a result, three intervening conditional roles were identified in this study: leader as advocate, process-responsible leader, and outcome-driven leader.

In a qualitative pilot study conducted in 2009 addressing the evolving process from awareness to activist for a sustainability leader, Schwalb proposed that leaders in initial stages of adopting sustainability believed their primary value was in making others aware. As others become aware, these leaders take on the role of teaching, modeling, and mentoring. Finally, at some point of awareness saturation, leaders evolve their role from educator to activist and implementer. This most recent study corroborates the earlier work by extending the notion of evolving into a sustainability leader style, with various activist roles identified: advocate, process-responsible, or outcome-driven. In all these roles, individuals intentionally take action to integrate social change, economic justice,
and environmental well-being. However, it should be noted at this point, there was no evidence that sustainability leaders value the three pillars equally. Further, it is possible to continue to evolve from advocate to process-responsible to outcome-driven, remain in any of the roles, or move back and forth between roles without regard to sequence. The lines between the roles may not be as clearly distinguishable as described here. There is most likely overlap between roles, as the model shows.

This process is not unlike the steps described in Senge’s, et al. (2008) *The Necessary Revolution*. He describes a set of steps that leaders in a wide range of roles can take to improve the dialogue in their organizations regarding sustainability. He suggests the individual first does some personal reflection, followed by choosing a few other like-minded people with whom to talk. This leads to convening an informal team to explore issues, to develop aspirations, and to create a proposed plan for change. Finally, Senge suggests an initial draft of a case for change is taken to the management team, with a proposed plan for how that team could become fully engaged in the dialogue (p. 149). There is an internal process from awareness and internalizing to externalize in the form of advocacy/education, process-responsible, and/or outcome-driven.

The significance of this finding is the multiple dimensions that necessarily exist in both the antecedents to competencies, as well as the competencies themselves. Competencies may differ depending on the sustainability leader role (advocate, process-responsible, or outcome-driven); the thinking style; positive psychological constructs; and competency dimension (knowledge, skills, style, method, and mission-critical).
Phenomena Resulting from Purpose and Role in Sustainability

In the past 60 years, as many as 65 different classification systems have been developed to define the dimensions of leadership (Fleishman et al., 1991). Northouse (2010) identified the components central to leadership as process, influence, groups, and goals. Leaders are people who engage in leadership. This study has looked at leaders’ traits/qualities/characteristics/competencies, rather than the complex process of leadership. The approach adopted here is leadership as a process that can be learned and is available to everyone. Further, the data identified unique dimensions of sustainability leaders. Five core dimensions resulted from participant reports: (a) knowledge, (b) skills, (c) style, (d) method, and (e) mission-critical.

Knowledge

Knowledge in areas of business and economics and markets, human behavior, decision processes, and community life were viewed as foundational to one who would lead a sustainability initiative or organization. Other capacities, such as awareness of poverty, population, and inequities also were identified. Some participants suggested a background in ecological economics would be desirable for a sustainability leader. In addition, specific and unique knowledge related to the role the sustainability leader plays is required.

Since many of the participants teach in a college setting, they were asked what they would teach to prepare the next generation of sustainability leaders. Stuart Hart, professor at Cornell University and one of the world's top authorities on the implications of environment and poverty for business strategy, said teaching content of what is going
on in the world can “fire people’s imagination and sensitize them to a set of conditions that they never really knew about before . . . they gravitate towards it and grab hold of it.”

Steve Young, global executive director of the Caux Round Table and adjunct professor at the University of Minnesota, recommended an overview course that puts “business and economics and markets in the context of society as a whole.” These are but a few examples of knowledge that sustainability leaders should acquire.

**Skills**

Communication, dealing with ambiguity, building and maintaining relationships, dealing with complexity, project management, and conflict resolution are examples of skills deemed important to be learned and developed. As a competency, the abilities identified here as skills are consistent with the early work of Katz (1955) and the more recent work of Mumford, et al. (2000), who initiated the development of a comprehensive skills model of leadership.

**Style**

Style refers to leadership style, which describes the behavior of a leader. Northouse (2010) says the “style . . . focuses exclusively on what leaders do and how they act” (p. 69). It includes the actions of leaders toward subordinates in various contexts: how input is gathered, how ideas are presented, and how people are mobilized. One participant described it as the external appearance, reflecting core and sense of identity. Both desirable and undesirable styles were suggested by the participants. Desirable style attributes derived from the data included self-organizing, acting with clear intention, taking a stand, execution, navigation, outspokenness, and to possess “wonder”
over “will.” Hart said the leader needed to “instigate, incubate, seed and grow, nurture, and protect.” More than one participant said the style least desirable was the traditional “command and control.”

Many studies have investigated leadership style, including The Ohio State University studies in the late 1940s, and the University of Michigan studies exploring leadership in small groups. A third line of research was initiated by Blake and Mouton in the early 1960s. Style describes the major components of behavior (Northouse, 2010). The category of style appears to be validated as a competency theme.

Method

Method has to do with “how” an individual should lead. A number of the participants felt inquiry, question, and wonder were necessary. There was an underlying theme of group involvement, with such codes provided as “collaborative,” “convene,” and “engage.” Mary Ferdig, principle at the Sustainability Leadership Institute, suggested sustainability leaders need to “let go of power and ego and control.”

Mission-Critical

This is the final dimension impacting the phenomena of sustainability leadership. There was definitely a sense of urgency exhibited by study participants that “we” as a country or inhabitant of the planet earth are late with concerns of the environment and those with whom we share this space. Dutra, Everaert, Fust and Millen (2011) describe mission-critical competencies as having the ability to see multiple futures. They also suggest sustainability leaders are often good at projecting how new ideas may play out in the market and are described as “visionary.” Cecil Steward, president and CEO of the
Joslyn Castle Institute for Sustainable Communities, felt patience—along with the willingness to persevere—was an important competency. In a similar vein, Steve Young and Carol Hunter believed a commitment to the long-term was necessary. “Vision” and “innovation” were included in Andy Savitz’s and Ron Nielson’s list of qualities for a sustainability leader.

**Strategies and Consequence**

In the presence of the context and intervening conditions described above, the phenomena of sustainability leader competencies lead to strategies around the five dimensions of knowledge, skills, style, method, and mission-critical. The strategies for each of the dimensions will be unique to the sustainability role, as identified in the intervening conditions of advocate, process-responsible, or outcome-driven. The strategies used by sustainability leaders is what will mark their work—result in decisions—that integrate concerns of the planet, its people, and profits.

**Summary**

The competencies described here for sustainability leaders are not necessarily unique. They have been identified and categorized in numerous studies of leadership theories. What make them unique are the strategies within each category that will define them and apply them to an individual with a purpose to integrate concerns of people, planet, and profits. Competencies of a sustainability leader is the central phenomenon. Systems thinking, positive psychological constructs, the leader’s role, and the strategies related to competency dimensions differentiates sustainability leaders from other
contemporary leader types. The grounded theory model of the competencies of a sustainability leader, developed from the investigation, is presented in Figure 4.3.

This multi-level model establishes a coherent, construct-focused framework for understanding the complexity of sustainability leader competencies. Thinking and psychological constructs set the stage, while the role the individual plays directly impacts the competencies and strategies for those competencies. Examination of the role the individual plays—advocate, process-responsible, or outcome-driven—shifts focus from a generalized list of traits, qualities, and characteristics to a set of strategies required for knowledge, skills, style, method, and mission-criticality.
Figure 4.3: Grounded Theory Model of Sustainability Leader Competencies
Two final questions focused on whether sustainability leadership was a philosophy or a style, and if participants felt sustainability was a new, emerging era in leadership. Responses to the first question regarding philosophy or style, included “both,” and “neither.” Steward felt it was more of a mission, or calling, than a philosophy or style. Young thought it was an identity. Hunter described it as a consciousness or awareness. None of the individuals interviewed had much of an interest in whether or not it was a new or emerging leadership era. Pittman expressed it for the group when he said, “There needs to be emergence of a new era in leadership!”
CHAPTER V

SUMMARY, DISCUSSION, SIGNIFICANCE, AND RECOMMENDATIONS

Summary

The purpose of this grounded theory study was to explore the unique dispositions, skills, values, and/or behaviors referred to collectively as competencies of sustainability leaders by gathering data from individuals recognized as thought leaders, scholars, and theoreticians of sustainability. In addition, a review of historical events and their relationship to leadership eras was conducted to support the theory that sustainability leadership is an emerging style as a result of recent social, economic, cultural, and environmental change.

While much has been written about sustainability from perspectives of natural resources, science and environmental education, real estate, eco-tourism, psychology, public health, conservation, and theology, among others, sustainability leaders have received little attention in the field of sustainability or leadership studies. There is starting to emerge more discussion around sustainability-like imperatives for and characteristics of sustainability leaders. This study complements the work previously conducted in the areas of sustainability, as well as contemporary leader traits, and advances the research.

For the purpose of this study, the central question was: How do thought leaders, scholars, and theoreticians of sustainability concepts characterize the competencies of sustainability leaders? As this is a relatively new topic for leadership study, additional
information was gathered. Sub-questions included: Is sustainability leadership a style or a philosophy? Is sustainability leadership a new or emerging leadership theory?

Findings that emerged from the study lead to the conclusion that thinking style and positive psychological constructs are antecedents to leadership competencies. In addition, the intervening condition of the leader’s role has a direct impact on the competencies needed for effective leadership. Competencies are a result of the knowledge, skills, method, style, and mission-criticality dimensions. The consequence of this process then is a decision, an action, or set of decisions and actions taken grounded in the perspective of a sustainability leader.

**Discussion**

“What are the competencies of a sustainability leader?” resulted in the answer, “It depends.” There is a complex set of variables and conditions that lead to more than one conclusion. There are characteristics or competencies related to knowledge, skills, style, method, and mission-criticality. However, these are unique and depend on the role the individual assumes: an advocate, process-responsible, or outcome-driven. There is more congruity, however, at the beginning of the model.

A point of delineation is the level of analysis, or context, of the grounded theory. The data gathered and its interpretation is for an individual as opposed to an organization. As Andy Savitz stated during an interview, there is a different set of competencies as they relate to a sustainability organization. First, an individual must have a purpose or intention to integrate priorities of planet, people, and profits when making decisions. At least at this stage of a new and emerging leadership style, sustainability is not as second
nature as breathing and requires intention, or purpose. Purpose is at the heart of sustainability. Next, two themes emerge that are applicable to all sustainability leaders: systems thinking style and value-based positive psychological constructs.

Nearly every participant identified systems-thinking, sometimes characterized as holistic-thinking, as a necessary skill for sustainability leaders. To be able to identify all impacted stakeholders over a long period of time involving a decision or action, and then to integrate sometimes conflicting needs, is what makes that decision or action sustainable. For a business leader, this is the case in anticipating needs and impacts on the environment, people, and financial concerns of actions taken by a business.

While the participants listed different values (i.e., positive constructs) that were necessary, all had at least one they felt was required of a sustainability leader. The list of positive psychological constructs included hope, integrity, intention, respect, stewardship, virtuosity, thoughtfulness, compassion, honesty, bravery or courage, thankfulness, spirituality, accountability, inclusiveness, and servitude. So before a leader makes a decision, designs a product or process, or shares a vision or goal, he or she must have a sense of purpose, a systems-thinking style, and a set of values to be congruent with sustainability. It is at this point where there is variability in the grounded theory model of the competencies of a sustainability leader.

Important at this point are strategies for the dimensions of competencies related to knowledge, skills, style, method, and mission-criticality. Depending on the role of the sustainability leader, the competencies will or can be different. There is a divergence in the model with different paths. A different set of successful qualities is required for a
Director of Sustainable Operations (i.e. advocate or process-responsible) than for the CEO (i.e. outcome-driven) of that same company. Due to the newness of human awareness and behavior as it relates to planet/people/profits, there is no one model to fit all. The intervening condition of sustainability leader role determines which competencies best fit. Ultimately then, the consequence—located at the end of the model—is particular to a sustainable leader as the style or philosophy exhibited in a decision or action.

**Significance**

For more than 25 years, sustainability thought leaders, scholars, and theoreticians have studied sustainability goals for businesses including measuring a “triple bottom line” comprised of environmental stewardship, standards of human dignity, and financial profit. However, limited attention has been given to the dispositions, skills, behaviors, and competencies of a sustainability leader. The purpose of this study was to develop a grounded theory of these competencies. While limited to businesses, and within the context of individuals rather than organizations, the emergent theoretical model demonstrates there is a unique set of strategies around competency categories, depending on the role the leader plays in the organization.

While it is highly unlikely that sustainability will be achieved during our generation or even the next, leadership educators need to be informed of the qualities needed to effect the changes required of a sustainable world. As Timpson et al. point out, “[Higher education] prepares most of the professionals who develop, lead, manage, teach, work in, and influence society’s institutions” (2006, p. xii). This study developed
groundwork in making ready the next generation of leaders for the vision and decisions necessary.

The findings from the data collected and analyzed regarding competencies of a sustainable leader are in its infancy, yet this data complements and extends existing work in both sustainability and leadership. The grounded theory model will be useful for scenario-building when recruiting or training personnel with sustainability responsibilities, as well as students studying leadership, environmental, economic, and social concerns.

In addition, a hypothesis can be formed from the study outcomes that there may be different weightings for the priorities of planet/people/profits. The commonly used model for sustainability is three, equal-sized circles representing each of the stakeholders with same weighting and priority. Based on the role and responsibilities of the sustainability leader, this may not be the case. While considering the environment, society, and profits, a leader may have more of an interest in one or two of the pillars, than the other(s). Sustainability and leadership educators, as well as corporate trainers and recruiters, will need to assess the impact of these findings on curriculum changes.

**Recommendations and Reflections**

**Limitations and Recommendations for Further Research**

There are several limitations to this study. First, grounded theory methods use purposive sampling techniques to gain the most relevant information possible on a subject. While these sampling methods are useful in painting an in-depth picture of the
research phenomenon under investigation, they also limit the generalizability of the study. In this study, qualities of sustainability leaders were limited to business leaders. Findings from the study may not be generalizable to leaders of other types of organizations. In addition, participants were a pre-selected group of scholars, thought-leaders, and theoreticians versed in sustainability. Natural scientists, environmentalists, and participants from other disciplines may have additional or different views of sustainability leader competencies.

Finally, the level of analysis was done at the individual level. Participants reported competencies of individuals. Findings from this study may not be generalizable to the competencies of sustainability organizations. To further sustainability and leadership knowledge, scholars could consider research as it relates to sustainability organizations, with a heterogeneous population of participants from different disciplines, and to leaders of governmental, community, and other non-business organizations.

Recommendations and Implications for Further Research

Although this study represents an initial effort to examine the competencies of sustainability leaders, additional research should include the following:

- Determining leader competencies and strategies for the dimensions listed (i.e. knowledge, skills, style, method, and mission-criticality) by sustainability role (i.e. advocate, process-responsible, or outcome-driven).
- Conducting a quantitative study supporting or rejecting the qualitative theory developed here. One would first have to determine if sustainability competencies are measurable.
- Interpreting the findings and applying to leadership education curriculum. A researcher would need to review current curriculum and conclude if a change is warranted and what the new pedagogy would include.

Conclusions from the research have also fostered questions regarding other leader trait theories and leadership as a process theories. Scholars should explore the following questions:

- Are there other sustainability roles, in addition to the three discovered in this study (i.e. advocate, process-responsible, outcome-driven)?
- How does sustainability leadership correspond to complexity leadership?
- How do sustainability leader competencies correspond to other contemporary styles and competencies such as Authentic, Servant-Leader, Female, and Transformational?
- Is there a unified model emerging that incorporates aspects of Authentic, Servant-Leader, Female, Transformational, Complex, and other leadership styles and competencies?
- Are there any sustainability competencies that transcend any/all sustainability roles?
- Is there a correlation between human development theories, such as spiral dynamics or integral theory and sustainability leadership?

Further research directed at answering the questions that have emerged from this study will advance the understanding of competencies of sustainability leaders. This can
have significant impact on leadership education, as well as recruiting efforts in organizations that embrace sustainability philosophies and practices.

**Researcher’s Reflections**

I entered this study with an expectation that the data would provide a theory of sustainability competencies—a nice, neat list of traits, behaviors, and values that could then be tested in a quantitative research project. I even had a short list of my own that I was certain would be there. Two items on my list was not apparent in the data collected. The first is foresight or future-thinking. With a sentiment of “sustaining”, it would seem to me that leaders would have to be looking ahead, as well as dealing with current situations—kind of like driving a car with 80 percent of the driver’s attention on the road immediately in front and 20 percent on what lies ahead, so that he or she can anticipate changes. The second is spirituality. By the end of my interviews, I was asking participants outright if they felt this was a competency of a sustainability leader. I was reminded of my focus on business settings. As one participant said, “I can’t even go there” because of the wall that immediately comes up if someone thinks you’re talking about religion.

While I admit to some disappointment that a nice neat list is not the outcome of the study, I strongly believe the grounded theory model resulting from the data presented here is directionally true, as well as important. There is a career’s worth of additional research that can be conducted around the foundation built here, as evidenced by the recommendations and implications for further research detailed above. Perhaps one of the most surprising (disturbing?) findings from the interviews was the sentiment from those 25 to 35 years old who said “leadership got us into this mess, leadership will not get
us out of it.” This is definitely a regression to the anti-leadership era and has implications to question what leaders and leadership styles have been like for that generation. It also is a relevant research topic.

I emerge from this five-year journey with a sense of hope for the planet and society and even capitalism! Business executives know what must be done. Many leaders show evidence of a sense of purpose around the pillars of sustainability, practice systems thinking, and demonstrate positive psychological constructs (values and morals). Needed change never comes about as fast as we would like, but my generation will be able to reflect when they get to their “final third” (of life) and find satisfaction (and peace) with the progress made.

I will do my part by continuing research in this area. In addition, I will take every opportunity to begin or join in conversations about our responsibility to the earth and those who inhabit it. Only decisions filtered through the implications to planet, people, and profits—and fast-forwarded through future generations—are truly “sustainable.” Pragmatic. Logical. Unemotional. That’s how I see it. And this needs to be inculcated into the educational system from kindergarten through post-secondary venues. What Junior Achievement did for bringing business and economics and community service to children is needed to make sustainability as important as the “three R’s.” Values need to be included in what we teach our youth in the educational system. As part of the curriculum, this means including humility and an appreciation of their (our) role and responsibility as citizens and stewards of the planet. At the post-secondary level, these liberal arts concepts need to be included in the sciences (especially business and leadership!) programs of study.
I worry that many enthusiasts believe the rallying cry of “sustainability” is a “silver bullet”—decisions made using this framework will be a win-win-win for the planet, people, and prosperity. Referring again to the flooding case study that introduced this dissertation and with the perfect knowledge found in hindsight, there was no decision that could have been made that did not negatively affect someone or something. There was no way for the endangered species and the farmers upriver and the people and businesses downriver to all “win,” regardless when the Corp. of Engineers released the waters. Sustainability may just be a filter for decision-making that contemplates the implications and affects to others, including future generations. Really good . . . but with its limits and imperfections.
REFERENCES


Chamber of Sustainability. Retrieved June 13, 2010 from
http://www.chamberofsustainability.com/prosperity.html

Corbin, C. (2000). *Great leaders see the future first: Taking your organization to the top
five revolutionary steps*. Chicago: Dearborn.

Corbin, J., & Strauss, A. (2008). *Basics of qualitative research: Techniques and
Publications.

Core Practices, (n.d.). *Rocky Mountain Institute*, retrieved March 28, 2009 from
http://www.rmi.org/rmi/Built+Environment

Corporate sustainability. (n.d.). *Dow Jones Sustainability Indexes*, retrieved March 28,


Damon, W., Menon, J., & Bronk, K. C. (2003). The development of purpose during

Viking.
Dictionary of Business and Management. Retrieved June 13, 2010 from

Dow Jones Sustainability Indexes. Retrieved June 29, 2010. Website:
www.sustainability-index.com


Sustainability Institute [needs proper citation]


APPENDICES
Appendix A

IRB NUgrant Approval Letter

January 31, 2011

Pamela Schwalb
Agricultural Leadership, Education and Communication
5714 S 169th St Omaha, NE 68135

Gina Matkin
Agricultural Leadership, Education and Communication
300 AGH, UNL, 68583-0709

IRB Number: 2011011222 EX
Project ID: 11222
Project Title: Sustainability Leadership: A Grounded Theory Study

Dear Pamela:

This letter is to officially notify you of the approval of your project by the Institutional Review Board (IRB) for the Protection of Human Subjects. It is the Board’s opinion that you have provided adequate safeguards for the rights and welfare of the participants in this study based on the information provided. Your proposal is in compliance with this institution’s Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46) and has been classified as Exempt Category 2.

You are authorized to implement this study as of the Date of Final Approval: 01/31/2011.

1. The approved informed consent form has been uploaded to NUgrant (Informed Consent Form-Approved.pdf file). Please use this form to distribute to participants. If you need to make changes to the informed consent form, please submit the revised form to the IRB for review and approval prior to using it.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

Becky R. Freeman, CIP
for the IRB
Appendix B

Informed Consent Letter

Prospective Research Participant: Read this consent form carefully. Ask as many questions as you like before you decide whether you want to participate in this research study. You are free to ask questions at any time before, during, or after your participation in this research.

| Project Title: Sustainability Leadership: A Grounded Theory Study |
| Principal Investigator: Pam Schwalb | Organization: University of Nebraska - Lincoln |
| Location of Study: Omaha, NE | Telephone #: 402-894-9207 |

Purpose of This Research Study
You are being asked to participate in a research study designed to investigate the unique dispositions, skills, values, and/or behaviors of sustainability leaders.

The purpose of this qualitative, intrinsic case study will be to understand how thought leaders, scholars, and theoreticians of sustainability concepts characterize the qualities of sustainability leaders.

As a student researcher I am conducting research as part of my degree in the Ph.D. in Human Sciences, with a concentration in Leadership Studies at the University of Nebraska in Lincoln, Nebraska.

Procedures
You will be asked to participate in a one hour face-to-face interview, to take place at your office, via phone, or at some mutually agreed upon location. The interview will be audio-taped and your identity and the name of your organization will not be disclosed verbally or in writing unless you sign a waiver to waive your right to confidentiality. The content of the interview will be transcribed. The transcription will remain in the possession of the researcher for five years and then will be destroyed by shred machine.

Possible Risks
This research presents minimal risk to participants. The chief risk involved in this study is a risk of confidentiality. No personal identifiable information will be shared in any way that may result in a loss of individual confidentiality, unless you waive the right to privacy.
Possible Benefits
No direct benefits from participation in this research are predicted. The results of this study may contribute greater knowledge to the fields of sustainability and leadership.

Financial Considerations
You will not receive any financial compensation for your participation in this research.

Confidentiality
Your identity in this study will be treated as confidential. Results of the study, including all collected data, may be published but will not give your name or include any identifiable references to you, unless you grant permission to do so. Confidentiality will be protected through the use of pseudonyms. However, any records or data obtained as a result of your participation in this study may be inspected by the persons conducting this study and/or The University of Nebraska’s Institutional Review Board, provided that such inspectors are legally obligated to protect any identifiable information from public disclosure, except where disclosure is otherwise required by law or a court of competent jurisdiction. These records will be kept private in so far as permitted by law.

Termination of Study
You are free to choose whether to participate in this study. You may also choose to withdraw from the study at any time. You will not be penalized or lose any benefits to which you are otherwise entitled if you choose not to participate or choose to withdraw. In the event you decide to discontinue your participation in the study, please notify Pam Schwalb, 402-894-9207, of your decision so that your participation can be terminated in an orderly fashion. The researcher may need to terminate the study without prior notice to, or consent of, the participants in the event of illness, or termination from the Ph.D. program in Human Sciences at The University of Nebraska.
All data collected on, about, or by a participant will be destroyed and not used in the data analysis or writing of the findings if the participant withdraws from the research project including interview responses, audiotapes, and e-mail messages; these will be destroyed and will not be used in the data analysis.

After the Study is Completed
A transcript of the audiotaped interview will be provided to you along with a summary of the results of this study upon request.

Resources
Any questions you have about this study will be answered by:

Pam Schwalb (principal investigator)
5714 S. 169th Street, Omaha, NE 68135
402-894-9207

Dr. Gina Matkin (Chair, Supervisory Committee)
300 Ag Hall, Lincoln NE 68588-0709
402-890-4218
If you have any questions about your rights as a research participant or wish to report any concerns, please contact the UNL Institutional Review Board at 402-472-6965.

In case of a research-related emergency, call the principal investigator or faculty advisor for this research project, as listed above.

**Subject and Researcher Authorization**

I have read and understand this consent form, and I volunteer to participate in this research study. I understand that I will receive a copy of this form. I voluntarily choose to participate, but I understand that my consent does not take away any legal rights in the case of negligence or other legal fault of anyone who is involved in this study. I further understand that nothing in this consent form is intended to replace any applicable federal, state, or local laws.

**Signatures**

Participant Name (printed): ________________________________
Participant Signature: ________________________________
Date: ___________________________________________________________________

Principal Researcher’s Name (printed): ________________________________
Principal Researcher’s Signature: ________________________________
Date: ___________________________________________________________________

I agree to be audio taped for purpose of this interview.

Participant Name (printed): ________________________________
Participant Signature: ________________________________
Date: ___________________________________________________________________

I waive my right to privacy and grant permission to the researcher to use my name and the name of my organization in the report of the findings of this study.

Participant Name (printed): ________________________________
Participant Signature: ________________________________
Date: ___________________________________________________________________
Appendix C

Interview Protocol

**Project:** Dissertation - Competencies of Sustainability Leaders

**Time of Interview:**

**Date:**

**Place:**

**Interviewer:** Pam Schwalb

**Interviewee:**

**Position of Interviewee:**

**Project Description** *(purpose):* The purpose of this grounded theory study is to explore the unique dispositions, skills, values, and/or behaviors, referred to collectively as “competencies”, of sustainability leaders in business. At this stage in the research, a sustainability leader will be generally described as an individual who achieves long-term value by gearing his/her strategies and management to harness the market’s potential for sustainability products and services while at the same time successfully reducing and avoiding sustainability costs and risks.

*(Confidentiality and Use of Data)*

**Questions:**

1. How do you characterize sustainability leaders?

2. What are the competencies of a sustainability leader in a business setting?

3. Is sustainability leadership a style or a philosophy?

4. Is sustainability leadership part of a new era?
Appendix D

Codes and Categories Sample

<table>
<thead>
<tr>
<th>Leadership Style</th>
<th>Thinking Style</th>
<th>Emotional Competencies</th>
<th>Mission-Critical Competencies</th>
<th>Values</th>
<th>Career Motivators</th>
<th>Method</th>
<th>Knowledge</th>
<th>Creating New &amp; Different</th>
<th>Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>MF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ME</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ME</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Creating meaning and the action in the spaces between.
Appendix E

Peer-Review Validation Summary

Date: September 28, 2011

Participant: Mark Burbach, Alex Ramthen, Heath Harding – University of Nebraska-Lincoln

Non-participant, Observer: Gina Matkin – University of Nebraska-Lincoln

According to Creswell (2006), peer review or debriefing provides an external check of the research process (p. 208). The role played by the individuals listed above was that of “devil’s advocate” in that they asked hard questions about methods, meanings, and interpretations. They provided the researcher with the opportunity for catharsis by sympathetically listening to the researcher’s feelings. The researcher kept a written account of the session.

Other than questions to clarify methodology and findings, most comments made had to do with complementary studies, including transformational, LMX, and complexity leadership styles. An important discussion ensued related to purpose in a sustainability leader, and if it is possible to be grounded more in one area than another. It was suggested that the intervening condition of role might better be depicted in the model as overlapping boxes or circles. It was agreed by all that a multi-dimensional model could better demonstrate the grounded theory proposed in the study.

In addition, many suggestions were provided as to next steps and areas for further research, including relationship with complexity leadership and the progress toward a unified model of leadership. It was questioned and discussed if this qualitative theory could be proven or measured in a quantitative study. Finally, one reviewer suggested that
my own journey through the sustainability “bubbles” might make an interesting publishable chapter.

All suggestions from the peer-review session were considered, and where it fit the data, changes were made. The session lasted approximately 90 minutes. Afterward, Dr. Matkin and I met to compare notes and her observations.
Appendix F

External Audit Report

September 20, 2011

Dr. Jody D. Woodworth
Vice President, Academic Affairs
Clarkson College
101 S. 42nd St Omaha, NE 68131

The following is a summary of my external review completed on a qualitative research study conducted by Ms. Pamela Schwalb, a doctoral candidate at the University of Nebraska-Lincoln. The research question explored in this qualitative research study was presented as “What are the competencies of a sustainability leader.”

This topic was discussed extensively with the doctoral candidate and the following steps were completed.

1. Several meetings were conducted with the candidate to discuss the purpose of the study, interview process, transcription and the research questions asked of the participants.

2. Reviews of two sample interview transcripts were analyzed for coding.

3. Met with the researcher to verify the coding process and discuss findings.

4. Examined the thematic analysis and researcher interpretations, and verified that they were consistent with the sample transcripts reviewed.

Following the review of the documents, we met to discuss the assessment and the status of her study, including coding procedures and themes found in the coding. From this review, I consider the coding and themes an accurate representation of the each participant’s viewpoints. The methodology of the study and process for coding employed appears to have been conducted in an ethical manner using procedures and protocols reflective in documented qualitative research.

Sincerely,

Jody D. Woodworth, Ph.D.
Vice President, Academic Affairs
Clarkson College