CHANGING LIVES, CREATING LEADERS: TRANSFORMATIONAL ENVIRONMENTAL EDUCATION

By

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BTM, Thompson Rivers University, 2001

A thesis submitted in partial fulfillment of the requirements for the degree of

MASTER OF ARTS
in
ENVIRONMENTAL EDUCATION AND COMMUNICATION

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November 2009

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Dedication

This project is dedicated to Fisher Stone and Indigo River who allow me to see the world through the eyes of a child and share in their sense of wonder. Continue to be compassionate, be strong and dream….you are my hope.
Abstract

Since 2001, the Rivershed Society of British Columbia (RSBC) has facilitated the Sustainable Living and Leadership Program (SLLP). This study investigated the phenomenon of learning and personal change in former program participants of the SLLP. Specifically, the research explored key features of the learning experience which may have been instrumental in influencing participants’ beliefs and attitudes toward the environment. The study also investigated if and how these changes in values led to a shift in ecological praxis among participants and how such changes, if found, may have been applied in their home communities. Phenomenological interviews were employed to produce a rich description of three participants’ learning experiences which highlight shifts in their ecological consciousness and action. This research adds to the growing body of knowledge and research regarding transformational learning and its use in environmental education programs. Additionally, the findings of this study will assist the RSBC in future programming initiatives of the SLLP.
Acknowledgements

With gratitude and thanks to my mother and father who provided so many wonderful opportunities during my childhood to explore and discover nature and who continue to be wonderful mentors and role models on how life should be lived; Dr. David Twynam for providing the gentle nudge that started this whole process and who offered the continued support from the School of Tourism in my scholarly endeavours; Gilles Valade and the entire staff in the Adventure Studies Department for providing encouragement, time and space for me to complete the research; Fin Donnelly for his inspirational leadership and setting the example that one person can make a difference; the three SLLP alumni who participated in this study and shared their amazing stories and incredible perspectives—it was a privilege to get to know you; Sheila McColman, for her Herculean efforts assisting me with the data transcription; Dr. Brian Wattchow for his insightful perspective, expertise, support and gentle approach in guiding me through the research process—your efforts allowed me to gain confidence throughout the thesis journey; Dr. Rick Kool, for his endless insights, support and encouragement early in the thesis process; a huge thank you to my editing team, who during various stages of my thesis journey dedicated their time to help me clarify my writing—Jon Heshka, Katina O’Neil, Angela Bueckert, Sharina Dodsworth and Lisa Cooke; s special thanks to Naomi Cloutier for assisting in the final edit and seeing the project to completion; finally, to Kathryn Learie, my partner, for her infinite patience, support and encouragement throughout the last two and a half years—without you none of this would have been possible.
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Chapter One: Introduction and Background

This study investigated the phenomenon of learning and personal change in former program participants of the Rivershed Society of British Columbia’s (RSBC) Sustainable Living and Leadership Program (SLLP). Specifically, the research explored key features of the learning experience which may have been instrumental in influencing participants’ beliefs and attitudes toward the environment. The study also investigated if and how these changes in values led to a shift in ecological praxis among participants and how such changes, if found, may have been applied in their home communities. In attempting to capture the essence of participants’ learning experiences, this research endeavoured to derive a pedagogical model and framework for transformative wilderness-based environmental education. The findings and analysis of this study are rich and detailed and may add a unique perspective to the evolving dialogue concerned with identifying the most effective environmental outdoor educational approaches that will lead to meaningful personal and social change. While not readily generalizable to other populations and contexts, the detail should enable the readers of this research to consider and reflect upon similarities and differences in their own pedagogic context. Additionally, this research may assist RSBC by providing fresh insight into the SLLP process and ideas for the future direction of the program.

Significance

In 1992, 1700 of the world’s top scientists from 71 different countries, including half of all the living Nobel Prize winners, issued the “World Scientists’ Warning to Humanity” (Kendall, 1992). It stated:
Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course will bring about. (Introduction section, para. 1)

This statement listed a host of environmental ills that were besetting the earth’s atmosphere, water resources, oceans, forests, species and human population. The warning continued:

No more than one or a few decades remain before the chance to avert the threats we now confront will be lost and the prospects for humanity immeasurably diminished. We the undersigned, senior members of the world's scientific community, hereby warn all humanity of what lies ahead. A great change in our stewardship of the earth and the life on it is required, if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated (Warning section, para.11.)

The Union of Concerned Scientists then made a series of specific recommendations regarding what they felt needed to be done, and called upon the world’s scientific, religious, political and economic leaders, as well as all people in general, to act. Seventeen years have passed since the warning was first issued and still the global community seems unable or unwilling to respond to these pressing issues in a coherent and cohesive fashion. The world’s top scientists have proposed that averting the coming ecological catastrophe would require

. . . a new attitude towards discharging our responsibility for caring for ourselves and for the earth. We must recognize the earth's limited capacity to provide for us. We must recognize its fragility. We must no longer allow it to be ravaged. This ethic must motivate a great movement, convincing reluctant leaders and reluctant governments and reluctant peoples themselves to effect the needed changes. (Kendall, 1992. Developed Nations Must Act Now section, para. 20)
A movement toward change and a new trajectory for the human prospect requires a “profound questioning about the foundations of our modern, scientific, industrial, growth oriented, materialistic worldview and way of life” (Capra, 1996, p. 8). If the Union of Concerned Scientists is correct, then we are in a race against time. A systemic re-education of industrial Western society is required in order to meet the urgency of the issues that we are collectively facing. This sort of deep questioning is slowly beginning to occur as literally millions of people worldwide seek solutions to our current environmental problems and issues. Local environmental concern, social justice and the environmental movement are on a popular upswing (Louv, 2008). As Hawken (2007) suggested in his book *Blessed Unrest*, there are two to five million citizen organizations in the world questioning the dominant paradigms and challenging humanity to examine the long-held values, beliefs and worldviews that have shaped modern civilization. The goal of this research project was to examine educational processes as one avenue by which such changes may be initiated.

Inherent in education is the promise and possibility for personal and societal change. By design, education embodies certain goals from which all learning and interventions stem. It is, specifically, education that I refer to in this study. While the transfer and transmission of ideas, information and knowledge can occur through personal relations, mass media, and a host of societal and cultural institutions, education may possess the most power to propagate information and knowledge systemically. From a systems thinking perspective, education and educational programs embody potent positive feedback loops, and it is perhaps for this reason that environmental theorists and educators, such as Berry (1999), Orr (1992a, 1994) and Thomashow (1995, 2002), have
viewed education as an essential component in bringing about personal and societal change in environmental thought and behaviour. Educational programs of all kinds may influence increasing change through a circular chain of interactions and effects (Kauffman, 1980). Education embeds information, ideas and knowledge in learners’ minds that can then affect attitudes, values, beliefs and actions as individuals move into wider spheres of influence (Gong, 2002). In his book *The Selfish Gene*, Dawkins (1989) has coined the term “meme” to explain the cultural transmission of knowledge. Dawkins has provided an example of a university professor who, through research and reading, develops an idea and then speaks about it with his colleagues and lectures about it to his students. As a result, ideas are transferred. This transfer, Dawkins said, is analogous to planting a “virus in the mind” of the professor’s students and co-workers that spreads through society and culture (1989, p. 192).

Our current ecological problems and environmental issues require a systemic change in how we think, relate to and interact with the physical world around us. What is needed is the active and sustained transfer of a new kind of “virus” of the mind. Could the current incarnations of destructive viruses that draw from Cartesian reductionism, Western domination, and capitalist competition and expansionary growth be replaced with a new sustainable virus of the mind that champions holistic, integrated and cooperative approaches to re-negotiated human relations with each other and the environments we live in (Capra, 1996)? Could the answers lie in a pedagogical framework of ecological education that can transform our relationship with the earth and each other? As Orr (1994) has suggested, “It is not education, but education of a certain kind that will save us” (p. 8). If the warning from the Union of Concerned Scientists was
warranted, then global environmental issues are sure to be the great concern of our time. While the Union of Concerned Scientists urged a global response to the planet’s current environmental crisis, part of the solution may originate in the humble sphere of local action. Well thought-out, local practices hold the potential to develop grassroots pedagogical movements specific to the social, economic, political and ecological need of specific regions. Through place-specific environmental education programs, we may find the appropriate and necessary response on a local level to the global problems facing the planet. This research study examines an example of this type of educational program in the SLLP.

Although the rhetoric around our looming environmental issues, problems and the need for decisive action has existed since the 1970s, the current global response of “business as usual,” while paying lip-service to sustainability, is inadequate. It appears that as our environmental situation continues to deteriorate, there is ever-increasing interest from national governments and international organizations for alternative solutions. Many of these solutions focus on pollution reduction and conservation insofar as they are concerned with human health and prosperity; fewer focus on fundamentally changing human values and behaviour toward an ecocentric focus (Naess, 1973). It is in this present climate that environmental education may gain significant ground and contribute to the attitudinal and behavioural changes required to face the challenges of sustainability. An educational vision that is emancipatory, empowering, creative, cooperative and reflective, that challenges the long-held cultural constructs that have created the problems we currently face, is vital (Bowers, 1993). Given the magnitude of our global environmental and social issues, there is an urgent need to inspire individual
changes on a local level. This research was designed to explore the ways in which participation in one environmental education program may have leveraged changes in individual personal consciousness and if these changes translated into localized political and social awareness and action. It posed and sought an answer to the question of how participants in an environmental education program experience a transition from environmental knowledge to ecological praxis and in what ways, if any, their learning is transformational. In this case, praxis was defined as the art of transforming environmental knowledge into personal environmental action (Freire, 1989). By exploring and investigating the lived experience of individual participants in the SLLP, pedagogical issues were revealed and discussed which can inform improved pedagogical practices in future environmental education programming.

Overview of the Research

Developing a more nuanced and sophisticated approach to pedagogical practice for ecological education and change requires an interdisciplinary approach that explores the best cultural, social, and learning practices (Wattchow, 2008). There are many possibilities and pedagogical models that can inspire change. In this research project, I was specifically interested in inquiring into the nature of transformative, experiential learning in wilderness or outdoor settings as a pedagogical foundation for ecological education (Andrews, 1999; Bell, 2003; Beringer, 2004; Bowers, 2001; Brown, 2004; Cushing, 1997; Hanna, 1995; Palmer, 1998).

Exploring a pedagogical framework for a transformative, experiential, wilderness-based ecological education program called upon the best practices, processes, methods and frameworks from an array of educational and learning theories. Literature regarding
environmental education (Bowers, 2001; Hart & Nolan, 1999; Van Matre, 1995), constructivist learning (Fosnot, 1989; Prawat & Floden, 1994), experiential education (Dewey, 1956; Kolb, 1984) and transformative learning and change (Cranton, 1994; Lewin, 1997; Mezirow, 2000) served to guide this inquiry. Research conducted in the fields of outdoor education and environmental education was used to shape the inquiry and contribute to the development of pedagogic insights toward refined practices. Exploration of these ideas is expanded upon in the literature review of Chapter Two: Literature Review so that subject areas relevant to this research could be fully explored and provide a foundation and boundaries from which the research proceeded. Not all outdoor education is environmental education, nor is all environmental education conducted in the outdoors. While both disciplines are concerned and involved with the natural world, each has its own specific educational objectives and preferences for pedagogical practice. Whereas outdoor education has been primarily focused on “developing knowledge, skills, attitudes concerning the world we live in” (Ford, 1986, p. 4), environmental education, in addition to the goals of outdoor education has promoted a more earth-centered approach to education that fosters a commitment to protect and improve the environment and create new patterns of personal and group behaviour (Palmer, 1998). The inherent differences and the interconnected nature of the two fields create a dichotomy between these seemingly similar forms of education (Hanna, 1995). Within the field of outdoor education there remains an on-going debate regarding the purpose, aim and any subsequent definition for the field (Loynes, 2002). For the purpose of this research, outdoor education was considered as a program that takes place in the outdoors and includes adventurous activities and skill acquisition. Risk and uncertainty
are employed in these programs to encourage personal and social growth (Palmer, 1998). Perhaps the best known example of this type of pedagogical approach can be found in the Outward Bound model (Wilson, 1981).

Within the field of environmental education, there is also a range of differing views regarding the purpose, aim and defining characteristics of environmental education (Hart & Nolan, 1999). For the purpose of this study, environmental education will be considered to be education that is about, in and for the environment (Palmer, 1998). The purpose of environmental education is to clarify a person’s awareness, knowledge, values, attitudes, relationships, actions and motivations as he or she relates to the natural world (UNESCO-UNEP, 1978). As with outdoor education, environmental education provides participants with the opportunity for action and change both individually and socially, but the focus is earth-centered and relational (Jensen, 2002). This research was aimed at revealing the phenomenon of the participants’ lived experiences in the SLLP, and to determine if any significant learning experiences regarding the environment arose and subsequently changed participants’ relationships with, behaviours in and perceptions of the natural world. Exploring the nature of participants’ personal transformations and the development of environmental praxis exposed plausible insights upon which both environmental and outdoor educators may reflect. Collecting data for the specific purpose of analyzing participants’ interpretations of their lived experiences had the potential to reveal pedagogical practices that may strengthen and augment current outdoor and environmental education programming.

There is a small but growing body of research on transformational learning and change theory and how it may be applied to wilderness-based environmental education
(Lewin, 1997; Mezirow, 1978). Findings from this study may add a unique perspective to the evolving dialogue concerned with identifying the most effective environmental outdoor education curriculum and pedagogical approaches that may lead to meaningful social change. The results may offer a rich source of material for professional reflection by other educators about their programs and personal contexts. Furthermore, readers of this research may decide that there are important elements of the outdoor education experience revealed by this study that may be transferable to a host of other environmental education programs and related fields. Participants involved in the study had an opportunity to reflect on the personal transformations that may have occurred in their lives as a result of their participation in the Sustainable Living and Leadership Program (SLLP). The Rivershed Society of British Columbia (RSBC) will directly benefit from the evaluation as the results provide fresh insight into the SLLP process and ideas for the future direction of the program.

The Sustainable Living and Leadership Program

On September 2, 2000, Fin Donnelly, the founder and executive director of the RSBC, and I pushed off from the banks of the Fraser River, in the shadow of Mt. Robson, and began our 1400 km journey to the sea. Fin, who would be swimming, wore a neoprene dry suit. I would be following behind in a whitewater kayak. Over the next 29 days we engaged in over 22 community celebrations on the river’s shoreline. We met with politicians and First Nations leaders and gave countless public talks and media interviews. To say the days were full would be an understatement. However, in the quieter moments on the river, Fin and I would float along together and chat. From our vantage point on the river, anything seemed possible. Whether we realized it or not, the
river and the experiences on it profoundly impacted our thoughts and ideas. This process may result in something known as “ecological identity,” (Thomashow, 1996) a personal relationship and identification with the natural world that develops through our travels and the schema of meaning that arises and assists in shaping our ideas, values and actions. Ecological identity, its definition and its implications, was a key concept in this research. Reflecting on how experiences such as this helped shape our own “ecological identities” (Thomashow, 1995), we imagined the benefit of being able to help manifest in others the same sensibilities and skills that our river experiences had provided. Fin and I began to envision a three-week, wilderness, expedition-style environmental education program that would take participants on the same route we were taking on the Fraser River. Like traditional environmental education programs, the program we envisioned would be in and for the environment and focus on enhancing participants’ knowledge, values, attitudes, relationships and actions as they relate to the natural world. Here we saw the opportunity to combine the key elements of two pedagogical frameworks, outdoor education and environmental education, to produce a transformation of ecological consciousness in our program’s participants under the guidance of skilled facilitators. The focus of the program would be to create local leaders in environmental movements, political action and personal consciousness. Out of our journey down the Fraser River, the SLLP was born.

After two years of countless planning meetings, budgets, logistics, curriculum development and fund raising, the program sent an inaugural group of participants down the Fraser River in late August 2002. The goal of the program was to inspire shifts in consciousness that could then translate into political actions— injecting the “virus” in
hopes that it would spread (Dawkins, 1989). Seven years have passed since the program’s inception and since that time I have had very little to do with the program. The program continues to grow, and anecdotal feedback from participants remains positive. Although many graduates are now doing important work on environmental issues in their home communities, very little empirical data has been gathered on the program’s impact, success and efficacy of its pedagogical approach. Part of the challenge is that many of these impacts and successes are not immediately measurable. The following research sought to explore and capture the essence of the SLLP phenomenon in transforming participants’ lives and lived consciousness, and how these changes served to help inspire leadership on environmental issues.

*The Rivershed Society of British Columbia*

In 1995, five years prior to Fraser 2000, Fin Donnelly swam the length of the Fraser River for the first time as part of an environmental public relations campaign called the “Swim for Life.” The swim elicited an enthusiastic response from politicians, people and communities along the Fraser River. The journey gave Fin a first-hand opportunity to connect with people living along the shores of the river and to engage in a dialogue about the future health of the river and the communities that depended on it. Fin realized that whether people recognized it or not, the river played an integral role in linking ecosystems and communities within the watershed (Donnelly, 2009). The Fraser River and the watershed boundaries became a medium to connect people and the environment. Fin began to envision an organization that could catalyze the formation of a network of concerned citizens and organizations throughout the Fraser Basin, and, subsequently, Fin formed the Rivershed Society of British Columbia (RSBC).
Understanding the core values and guiding principles of the RSBC provided context for framing the purpose and objectives of the SLLP.

Since 1996, the RSBC has established itself as a respected environmental organization in the Fraser Rivershed and throughout British Columbia (Argue, 2009; Johnson, 2009; Smith, 2009). The RSBC’s activities focus on “delivering quality public education programs, community initiatives [and] building stewardship capacity in the Fraser River Basin” (Rivershed Society of BC, n.d., Mission and values section, para. 5). All of the RSBC’s initiatives are rooted in the notion that in order to be effective, conservation and stewardship actions must be value-based. This means engaging people’s hearts and minds when regarding humanity’s impact and relationship with the environment. The RSBC is driven by a desire to inspire a shift in society’s relationship with the natural world. The organization believes that “achieving responsible stewardship, conservation and protection is a process. It begins with awareness, which in turn develops into understanding, inspiration, empowerment, action, citizenship and leadership” (Rivershed Society of BC, n.d., Mission and values section, para. 4). The conviction inherent in these ideas provides important guidelines to consider when exploring the essence of the SLLP. The RSBC’s mission statement is, “to inspire communities to care for and care about riversheds” (Rivershed Society of BC, n.d., Mission and values section, para. 2). The organization’s work is guided by the following core values: “We are part of the natural environment; the natural environment sustains us; [and] individuals can make a difference” (Rivershed Society of BC, n.d., Mission and values section, para. 3). The guiding principles that shape and direct all of the organization’s activities stem from “a sense of place; understanding sustainability;
effective and inclusive processes; commitment to stewardship; capacity to track human impacts; tools and resources for action; [and] social empowerment” (Rivershed Society of BC, n.d., Mission and values section, para. 4). Thus, the organization’s mission, values and guiding principles are powerful points of reference and provided a basis for understanding the nature of the SLLP. The elusive character of these core values and guiding principles, and the range of subjective personal interpretations and internalizations that participants made of them, was an area ripe for inquiry. To capture the essence of the experiences of participants in SLLP, there was a need to select appropriate methodology, one that was grounded in the lived experience of participants. Phenomenology, which strives to reveal the subjective nature of meaning making, has developed as a method of inquiry in educational research (van Manen, 1997) and seemed a fitting method to apply in the attempt to uncover a pedagogical model for ecological praxis in a wilderness river setting.

**Research Questions and Objectives**

This qualitative research study sought to answer the following three questions:

1. How did participants in the Sustainable Living and Leadership Program (SLLP) experience a transition from environmental knowledge to ecological praxis, and in what ways, if any, was their learning transformational?

2. What features of the learning experiences in the SLLP, if any, did participants feel were instrumental in influencing their beliefs, attitudes and behaviours toward the environment?

3. How, if at all, did environmental praxis manifest within the life-world of the participants in the SLLP program when they returned home?
Research objectives included the following three goals:

1. To conduct a critical literature review of program experiences that were conducive to learning for the purpose of leadership and environmental education.

2. To document and understand the participants’ perspectives on the features of and experiences in the SLLP program that promoted learning and change.

3. To analyze the research findings and synthesize the literature findings to evaluate the overall impact of the SLLP and make recommendations on future programming efforts.

Researcher’s Perspective

The long tradition of phenomenological inquiry requires that the researcher lay bare the assumptions and preconceptions that guide the researcher’s inquiry. In an effort to draw out the true essence of an experience, researchers must first suspend or “bracket” all that they know, or think they know, about something in order to do justice to the uniqueness of the phenomenon being studied. Husserl (1970), the founder of modern phenomenology, called this suspension of belief about a phenomenon “bracketing.” In the following section I expose the experiences, perspectives and theoretical constructs that shape my epistemological (i.e., how I view the construction of knowledge) and my ontological (i.e., how I understand the nature of reality) views. Having already outlined my involvement in the development of SLLP, I outline my own personal relationship with the outdoor environment and education that shaped the way in which I approach this project.

I consider myself to be truly blessed. Guiding and instructing people in the wilderness and the natural world has been my sole occupation for the past 15 years, and I
feel extremely honoured and privileged to spend a large portion of my time immersed in nature. It is an ongoing experience that has been nothing short of transformative. Without a doubt, travelling the length of the Fraser River and working on it as a river guide and an activist for over ten years has profoundly influenced the course of my life. Landscape, or, in this case, riverscape, has shaped my mindscape, my sense of place and community and my understanding of my connection to nature and the larger biotic community. Through a process of self-reflection, I have come to recognize that the sum of my experiences in nature defines my values, beliefs and actions. As an educator, I am thrilled to see the same process occurring in my students, though I acknowledge that the processes that shape my personal identity are unique. While the river and the natural world continue to be a source of inspiration, understanding and personal growth for me, I recognize that any individual’s relationship with nature can be complex and contradictory. Terms like wilderness, environment and nature are ambiguous and hold unique socially constructed meanings for different individuals and groups of individuals in a community (Wattchow, 2004). The values, ideas, beliefs and relationships we all construct are relative. Exploring the diversity of relationships and the processes out of which they are formed fuels my pedagogical approach as an educator and inquiry as a researcher.

Nature and the natural world have had a significant influence on my being. I have a deep love and reverence for mysteries of life. Coupled with the joy, wonder and inspiration I receive through nature is a deep sense of fear and despair for what has already been lost and all that may be yet lost if humanity fails to mitigate the loss by acting in some coherent and meaningful fashion. In response to these feelings I have been on a quest for knowledge and a meaningful response to the ecological crisis, which, from
an ecological praxis perspective, should also be seen as a personal and cultural crisis. This search has led me to become an educator. It is through education that I see the most promise in changing the social constructs and paradigms that currently guide dominant human relations with the natural world. Given the gravity of our ecological problems and issues, I am led to question the efficacy of the pedagogical practices and approaches that have long underpinned many environmental education and outdoor education programs. I see the need for research to inform a more sophisticated or nuanced pedagogical understanding from which the transition from knowledge to ecological praxis may be revealed.

Over time I have come to realize that my educational views align with the constructivist perspective. As Fosnot (2005) has stated, “from a constructivist perspective meaning is understood to be a result of humans setting up relationships, reflecting on their actions and modeling and collecting meaning” (p. 5). Learning thus becomes a social and action-based experience upon which students reflect in order to build their own conception of the world. Context and an individual’s perception influence his or her notions of truth. The construction of ideas means that “facts” can indeed be flexible as our interpretation and the subsequent meaning we derive from an experience change (Prawat & Floden, 1994). In this regard, we can never know the world in a truly objective sense; we cannot separate ourselves from our experiences in our attempt to make meaning of the world (Fosnot, 1989). Based on our prior knowledge, we assimilate, accommodate, adapt and invent new meanings and understandings as we move through the world. Meaning making is an active process of learning and engagement that is fluid and ever dynamic. Out of this postmodern educational theory of constructivism arose the
philosophy of experiential education (Klein & Merritt, 1994), and experiential education has been one of the primary pedagogies I have employed in my work as an educator.

Experiential education postulates that learners construct meaning and knowledge from their experiences (Archambault, 1964). First-hand knowledge (Whitehead, 1929) and an experience rooted in a social environment allow learners to form their own views, thoughts and feelings about the world around them (Freire, 1989). Learning becomes rooted in experience and relationships and involves an active element of asking questions, thinking critically, challenging assumptions and unlocking the imagination. The Association for Experiential Education (2008) has laid out principles of experiential education that have served as a compelling framework from which I have structured my teaching practices. The principles are as follows:

- Experiential learning occurs when carefully chosen experiences are supported by reflection, critical analysis and synthesis.
- Experiences are structured to require the learner to take initiative, make decisions and be accountable for results.
- Throughout the experiential learning process, the learner is actively engaged in posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative and constructing meaning.
- Learners are engaged intellectually, emotionally, socially, soulfully and/or physically. This involvement produces a perception that the learning task is authentic.
- The results of the learning are personal and form the basis for future experience and learning.
- Relationships are developed and nurtured: learner to self, learner to others and learner to the world at large.
- The educator and learner may experience success, failure, adventure, risk-taking and uncertainty, because the outcomes of experience cannot totally be predicted.
- Opportunities are nurtured for learners and educators to explore and examine their own values.
• The educator's primary roles include setting suitable experiences, posing problems, setting boundaries, supporting learners, insuring physical and emotional safety, and facilitating the learning process.

• The educator recognizes and encourages spontaneous opportunities for learning.

• Educators strive to be aware of their biases, judgments and pre-conceptions, and how these influence the learner.

• The design of the learning experience includes the possibility to learn from natural consequences, mistakes and successes. (para. 3)

Within these principles I find a persuasive pedagogy and philosophy that may be applied to environmental education. Inherent in experiential education is the possibility of transformational change occurring in the learner. It is within the prospect of transformational learning that I envision a powerful ecological pedagogy. But experiential education is not without its critics. The potential and promise of experiential education must be tempered with careful consideration about the pedagogical assumptions and practices currently in use (Bell, 1993; Wattchow, 2006) if its efficacy for environmental education is to be fully realized.

Education steeped in experience provides opportunity for critical reflection, creativity and action (Cranton, 1994; Dewey, 1956; Freire, 1989). Through the process of transformational learning, a mental reframing may occur where a learner’s long-held beliefs, assumptions and values are restructured. This transformation of perspective can result in a changed life perspective and an actual manifestation of this shift traceable in direct, tangible action (Mezirow, 2000). It is from these philosophies and methodologies that I see the possibility of a transformative pedagogy of ecological identity.

The core of my research interests in this project was a desire to understand how such changes may become manifest within the life-world of the participants in the SLLP
program. In light of the present environmental crisis, I believe transformational
environmental education programs provide a reason for hope. It may represent “the
certain kind of education” that David Orr (1994, p. 8) has believed to be so important for
the human prospect to continue. Transformational environmental education can assist
students in making “the leap from ‘I know’ to ‘I care’ to ‘I’ll do something’” (Orr, 1992b,
p. 147). Identifying the catalysts and processes involved in transformative environmental
education has the potential to provide practitioners with additional points of leverage with
which to initiate social and ecological change.

In this section of the thesis I have outlined the research question, aims of the
study and my position in relation to the research, a vital step for the phenomenological
researcher in order to articulate his or her presuppositions and assumptions about the
research in question. It is now necessary to consider the professional and research
literature that already exists regarding experiential learning, Outward Bound and
wilderness expeditions, ecological identity and transformational change. The exploration
of the research literature on these areas of study informed this inquiry as to the lived
experiences of the participants of the SLLP, and, perhaps, provides some pedagogical
considerations for the program and environmental education as a whole.
Chapter Two: Literature Review

The rhetoric in the fields of outdoor and environmental education about the benefits of time spent in nature upon the attitudes and behaviour towards the environment of program participants has a long history (Andrews, 1999; Beringer, 2004; Colletto, 1997; Gillet, Thomas, Skok, & McLaughlin, 1991; Hanna, 1995; Miles, 1990; Miles, 1987; Purdue & Warder, 1991; Thomashow, 1995). Despite most environmental programs being designed to be implemented in and for the environment, there are surprisingly few wilderness-based environmental programs that occur over multiple weeks, and little empirical evidence surrounding the efficacy of such programs. While most environmental education programs are interested in changing participants’ knowledge, attitudes and behaviours towards the environment (Baker, 2005; Beringer, 2004; Brody, 2005; Gillet et al., 1991; Hanna, 1995; Knapp, 2005; Palmberg & Kuru, 2000; Thomashow, 1995) few studies have utilized or combined the goals and aims of environmental education with the research in the field of transformative change and learning (Cranton, 1994; Kolb, 1984; Lewin, 1951; Mezirow, 1991a, 1991b, 2000). As the urgency of the environmental problems we currently face increases, it becomes vitally important to ask what kind of pedagogical practices result in profound experiences with the efficacy of transformational change toward humans’ relationship with the environment. The purpose of this literature review is to develop an understanding of how the current aims and practices of outdoor and environmental education may be combined with the disciplines involved in transformative change and learning. This chapter outlines the current issues and practices across a number of interdisciplinary fields and raises
questions about how these various fields of study might interweave to reveal a pedagogical model for wilderness-based transformative environmental education. In the absence of empirical evidence in environmental education on this subject, the literature review investigates a diverse and eclectic array of academic research and is organized in five interrelated sections. The sections are as follows:

- **Outdoor and Environmental Education.** In this section I have highlighted the key concepts and debates in the fields of outdoor and environmental education by drawing on work from key researchers and theorists in both fields (Beringer, 2004; Colletto, 1997; Gillet et al., 1991; Hanna, 1995; Goldenberg, McAvoy, & Klenosky, 2005; Hart & Nolan, 1999; Hattie, Marsh, Neill, & Richards, 1997; Patterson, Wattson, Williams, & Roggenbuck, 1998; Purdue & Warder, 1991). Together, these interrelated fields provided a foundation of understanding for this research.

- **Experiential Education.** In this section I have investigated and explored a variety of models in the field of experiential education (Dewey, 1956; Itin, 1999; Joplin, 1981; Kolb, 1984). A variety of models are presented and examined so that a more subtle and nuanced understanding of the field might emerge and be applied to this research.

- **Outward Bound and Wilderness Expeditions as a Rite of Passage.** In this section, Outward Bound and related outdoor educations programs are explored to see how pedagogical practices may be applied to environmental educations. Additionally, this section looks at the expedition experience through the lens of a transformative
rite of passage (Beames, 2004; Bell, 2003; Cushing, 1998; Turner, 1969; van Gennep, 1960).

- **Transformative Learning.** This section explores the parallels between a variety of models of transformative learning and change. Particular attention has been given to key social and educational theorists (Dalton, 1979; Lewin, 1997; Mezirow, 1991a, 1991b, 2000). The models present provide a framework or lens for understanding the process of personal and organizational change.

- **Ecological Identity and Self-Realization.** In this section of the review, the relationship between ecological identity and self-realization are explored (Leapold, 1949; Naess, 2008; Orr, 1994a, 1994b; Thomashow, 1995, 2002) to demonstrate that the continuum of identity with the human and non-human world can be viewed as a transformative process that has important implications to environmental education.

Collectively, the literature review presents a broad understanding of the key issues and challenges across these topic areas and how they relate to the research aims and questions of this research.

*Outdoor and Environmental Education*

Outdoor experiential education has long been recognized as a catalyst for inter and intra personal growth and change (Beames, 2005; Cushing, 1997; Goldenberg et al., 2005; Hattie, Marsh, Neill, & Richards, 1997; Patterson et al., 1998). While all of these studies have mentioned some aspect of a change in participants’ sense of connection to nature and the environment, this change is often considered to have been a derivative result and only one of a number of interpersonal transformations that occurred. Perhaps
this is because many outdoor education programs have a focus on transformational change as it relates to the specific individual or to social development. Changes in environmental values and behaviours are often an afterthought (Hart & Nolan, 1999). Outdoor education programs are, however, uniquely situated to provide environmental education opportunities in tandem with meeting outdoor learning outcomes as they often take place in remote isolated wilderness areas (Miles, 1987, 1990). This separation from normal social order and immersion in “place” is fertile ground for individuals to connect with the natural world (Andrews, 1999). All of the above studies have suggested that outdoor education shows promise in altering or changing individuals’ relationships and attitudes as they relate to the natural world. For these reasons I believe traditional outdoor education can combined with traditional environmental education to develop a powerful pedagogical model.

Few studies have looked at outdoor wilderness-based environmental education programs where the primary purpose is to instigate a form of ecological self realization and alter participants’ relationships, values, beliefs and actions as they relate to themselves, others and their surroundings (Beringer, 2004; Colletto, 1997; Gillet et al., 1991; Hanna, 1995; Holman, McAvoy, Rynders, & Goldenberg, 2003; Purdue & Warder, 1991). It is within this gap in the research literature that I locate this research. The lack of empirical research of participants’ experiences while in these programs is possibly a result of the relatively small number of wilderness-based environmental educational programs that possess such educational objectives. Useful to this research is the growing body of work that is searching to define a transformative pedagogy for social and eco-justice (Bowers, 2001; Brown, 2004; Finger & Verlaan, 1995; Gruenewald, 2003). The
intent of this research project concerning RSBC’s SLLP was to add to the evolving interdisciplinary dialogue that is striving for a pedagogical framework for ecological identification and transformation.

*Experiential Learning*

John Dewey (1956) has postulated that all learning is rooted in experience. He went on to advocate a theoretical framework for experiential learning that included social engagement, responsible participation in problem solving, intellectual and emotive processes that lead to integration and practical action (Archambault, 1964). Nold (1978) has envisioned this framework taking place in a cyclical format that involves the learner, the group, the environment, problem solving, and reconstruction of the experience and a re-direction of future experiences. Experiential learning is learning through real life experiences that holistically involves the student “as thinking, feeling, physical, emotional, spiritual and social beings” (Carver, 1996, p. 9). It involves critical thinking and reflection (Adkins & Simmons, 2002) and provides learners with the opportunity to actively participate in identifying, investigating and solving real world problems (Hamilton, 1980). Dewey’s proposition regarding experiential learning is congruent with many of the aims of environmental education and provides a foundation for a pedagogical framework for social change.

Kurt Lewin’s (1951) work in organizational development, group dynamics and leadership training has been influential in expanding experiential education theory. Lewin’s research has shown improved psychological success in learners when they participated in forming goals that related to their values and needs (Kolb, 1984). Lewin has found that by participating in personal goal setting exercises people “were more
active learners, more invested in the process and less likely to scapegoat” (Lewin, 1951, p. 271). Kolb (1984) went on to expand and combine both Dewey’s and Lewin’s work creating the Lewinian experiential model. This four-step model of learning consists of concrete learning, observations and reflections, formation of abstract concepts and generalizations and testing implication of concepts in new situations. Kolb (1984) has defined experiential learning as “a process where knowledge is created through the transformation of experience” (p. 38).

Joplin (1981) has also developed a model based on Dewey’s notion that experiential learning is socially situated. Joplin’s experiential learning model involves a spiral process that includes focus, challenging action, support, feedback and debriefing. In Joplin’s model, interpersonal growth is entwined with intrapersonal growth as an important part of the learning process. Individual self awareness is imbedded in a socialization process and larger group identity (Joplin, 1981). Itin’s (1999) diamond model for experiential education has expanded on the earlier work of Dewey and Hahn, the founder of Outward Bound, to include transactional processes between students, teachers, the learning environment and the subject matter. “Transactions are viewed as experiences and part of the experience within this philosophy” (Itin, 1999, p. 93). All of these models have provided potential conceptual structures to derive a pedagogical framework for wilderness-based environmental education. The theory and practice of experiential education is interdisciplinary in nature and, as this section of the document reveals, can be expressed through a variety of models, each of which adds important aspects for educators to consider. As the pedagogy of experiential education evolves, so,
too, does the need to consider all of these models. A more subtle, adaptable and complex framework for theorist and practitioner alike may arise.

Engagement in real world problem solving involves thinking, feeling and acting (Brody, 2005). Experiential environmental education programs can provide a platform for feeling and thinking about the human prospect and our relationships to the environments in which we live. These feelings and thoughts then serve as a foundation for personal change and action. As Steve Van Matre has suggested in his book *Earth Education* (1995), “experience is not what happens to you, but what you do with what happens to you” (p. 243). As a powerful, well-tested example of outdoor experiential learning, Outward Bound and other important initiatives in outdoor education may provide helpful models for educators interested in fostering transformative environmental learning experiences.

*Outward Bound and Wilderness Expeditions as Rites of Passage*

Outward Bound exemplifies learning by doing. Embodied in the philosophy of Outward Bound are the notions of service, equity, cooperation, leadership, ingenuity, self-reflection, self-confidence and developing a connection to the natural world (Wilson, 1981). All of these ideals are important in the urgent work of environmental education. In 1941, Kurt Hahn founded Outward Bound in response to the extraordinary challenges youth would face in war times (Godfrey, 1980), in particular, the Second World War. Hahn was approached by a merchant shipping company to develop a program to help young sailors survive the harsh environment of the North Sea. Hahn observed that young sailors did not have enough experience or practical skills to deal with difficult and demanding challenges. From this observation, the Outward Bound pedagogy was born.
The youth of the second half of the twentieth century and the first decade of the twenty-first century confront a different set of challenges; rather than the social or democratic challenges of their earlier counterparts, these youth now face a host ecological problems and environmental issues that have grave and pressing consequences. Thoughtful adaptation of the Outward Bound pedagogical concept could be combined with traditional environmental education to create experiences conducive to transformational change and ecological praxis.

The concept of the wilderness expedition and extended immersion in nature resounds in the heart of the Outward Bound experience. Several studies have indicated that participation in Outward Bound courses results in an increased conception of self (Gillett et al., 1991; Hattie et al., 1997; Martin, 2001). A study by McKenzie (2001) suggests that Outward Bound programs in Western Canada excel at personal identity formation. Wilderness trips can also result in transformational change in the participants’ environmental attitudes and behaviours (Cushing, 1997; Hanna, 1995; Henderson, 1995; Kellter, 1998; Talbot & Kaplan, 1986). Other studies on wilderness-based environmental education programs have suggested that participation can lead to a desire to take personal action (Dresner & Gill, 1994; Palmberg & Kuru, 2000). However, not all studies of Outward Bound found that environmental attitudes and concern positively changed through program participation (Gillett et al., 1991; McKenzie, 2001). The inconsistencies in findings surrounding changes in environmental concern and attitudes suggest the need for further refined studies of the topic. Immersion in a wild setting can be a dramatic experience that creates an opportunity for participants to explore their personal relationship with the wider biological community (Van Matre, 1995). These studies seem
to suggest that wilderness expeditions, when framed appropriately, may have transformational efficacy towards environmental behaviour and action. But how does this transformation develop? One place to look for a possible answer is in the work of anthropologists who have examined the role of rites of passage in traditional societies.

A rites of passage model has been used to frame and understand the prospect and potential of wilderness expeditions in outdoor education (Beames, 2004; Bell, 2003; Cushing, 1989). The notion of rites of passage was originally conceived by the French anthropologist, Arnold van Gennep, in 1909. According to van Gennep (1960), rites of passage are a universal cultural phenomenon that marks a ritual transformation from one stage of human life to another. Van Gennep has proposed three phases in the rites of passage: the separation or preliminal phase (*limen* is Latin for threshold), in which an individual or group is removed from their everyday life and social structure, a phase often marked with rituals that prepare the initiate for transformation; the transition or liminal phase, in which an individual or group undergoes an intense experience that introduces values and norms different from the ones of everyday social order, a phase in which, according to Turner (1992), the initiate is “inwardly transformed and outwardly changed” (p. 48); and the reincorporation or postliminal phase, in which individuals or groups return to society and embrace their new roles and responsibilities within the community, a phase typically marked by a celebration within the community.

Turner (1969, 1992) worked to reformulate van Gennep’s rite of passage model and has placed more emphasis on the liminal phase of the process. Turner saw this stage as one of personal transformation rather than on of shifting social status and as a place where revitalization, renewal and empowerment could occur (1969). Turner’s
reformulation of van Gennep’s original model can serve as a useful framework for the transformative power of wilderness-based expeditions (Andrews, 1999; Cushing, 1998; Davis, 2003; Lertzman, 2002). However, the rites of passage model as a model for outdoor education has not been without some criticism. Cushing (1998) has noted that rites of passage programs fell short in their transformative efficacy because they lacked the proper support networks or activities in the reincorporation or postliminal phases. Bell (2003) went further and has suggested that the efficacy of rite of passage programs could be significantly improved if communities could develop cultural belief systems that specifically supported individual and group change. Bell has suggested that a structured reintegration process be put in place to assist and support individual change in the postliminal stage. Applying a rites of passage model that includes both a wilderness travel component and interactions with local communities to an environmental education program may provide a holistic experience that connects people to nature and to society in general. Expeditions as rites of passage are just one method of personal transformation; explorations into adult learning as a form of transformation are examined later in this paper. An expedition-style rite of passage focused on environmental education may provide a framework that can lead to personal growth, transformation and an exploration of ecological identity. It may now be informative to investigate other models of transformation to see how they might be applied in the field of environmental education.

*Transformative Change*

Adults may undergo a potent type of transformative learning through participation in experiential education programs. Jack Mezirow identified this phenomenon in 1978 and has coined the term “perspective transformation” to explain the sequences of changes
that individuals go through as they adjust the meaning structures they developed during their lifetime. The process typically involves critical reflection and rational discourse about long-held beliefs and assumptions that lead to action and social change (Cranton, 1994). A powerful example of this type of educational program exists in the work of Paulo Freire (1989), who believed the historic task of humanity is to constantly reflect on the injustices in the world and take action to transform society. Mezirow’s theory regarding the process of transformational learning was grounded in his notion of perspective transformation. These two intertwined processes are precisely what the SLLP is trying to accomplish.

Mezirow (1990, 1991a, 2000) has postulated that transformative learning occurs through a three-step process of critical self-reflection, reflective dialogue and reflective action. *Critical self-reflection* initiates the process and is where an individual confronts a disorienting dilemma that causes a questioning of the assumptions that make up his or her meaning perspective. *Reflective dialogue* is the process of testing the validity of these assumptions and involves consensual negotiation with others to establish new frames of reference. *Reflective action* is action-based and involves attempting to integrate the new assumptions and frames of meaning into everyday life. Mezirow expanded this reflective process into a 10-stage model for transformative learning. The stages may be experienced in a variety of order and depths; however, all 10 stages must be satisfied if transformational learning is to occur. The 10 stages of Mezirow’s (2000) model are as follows:
1. Disorienting dilemma
2. Self examination of negative feelings
3. Critical assessment of assumptions and relationships
4. Recognition of one’s discontent and desire for change shared
5. Exploration of options for new roles, relationships and actions
6. Provisional trying of new roles
7. Building competence/confidence in new roles and relationships
8. Planning a course of action, acquiring knowledge and skills for implementing one’s plan
9. Acquiring knowledge and skills for implementing one’s plan
10. A reintegration into one’s life on the bases of the conditions dictated by a individuals new perspective

Mezirow’s model for transformational learning provides a framework for transformational environmental education that leads to ecological praxis.

Another influential scholar who has contributed to the theory of transformational change is Kurt Lewin, who believed that social conflicts could be resolved through behavioural change (Schein, 1996). Lewin also strongly believed that change needed to be approached with a humanist and ethical approach that supported and strengthened democratic processes and was grounded in a Gestalt psychology (Burnes, 2004). Lewin developed the planned approach to change that included four reciprocal concepts: field theory, group dynamics, action research and the three-step model. Lewin’s planned model for change was intended to encompass all four concepts; however, Lewin’s three-step model is often cited as his most significant contribution to organizational change (Burnes,
Lewin’s (1997) three-step model explaining the process of change involves unfreezing, movement and refreezing. Lewin postulated that any transformational change began with an “unfreezing,” involving emotional turmoil, dissatisfaction with the status quo, as well as challenging and disconfirming ideas. From this place, a desire to pursue change emerges. Once a desire to change is aroused, an individual or organization begins to initiate change. Lewin called this the “movement” stage and saw learning and involvement as critical aspects to the process. Finally, Lewin identified the “refreezing” stage as an adoption of new values, attitudes and behaviours (Burnes, 2004). While Lewin’s three-step model can be used as a lens to understand the process of change for both individual and groups, Lewin was insistent that the focus of change should be at a group level. If a new behaviour is to be sustained, it must be congruent with the group norms and behaviour of the learner’s environment, lest the individual regress to his or her former way of being (Schein, 1996). Lewin’s three-step model has drawn criticism. Many opponents see the model as too linear, static and prescriptive and argue that change is a continuous process (Dawson, 1994; Garvin, 1993). Despite these criticisms, Lewin’s model remains as one of the “the most fruitful conceptions of the change process” (Dalton, 1979).

Dalton (1979) expanded on Lewin’s three-step model. In the course of researching organizational development, he noticed that several processes were at work simultaneously where the influences of change were successful. Dalton (1979) identified
four sub-processes. The first two deal with shared objectives and relationships, while the last two are concerned with changes in the individual. The four sub-processes are all characterized by movement and are as follows:

- From generalized goals → specific objectives
- From former social ties built around previous behaviour patterns → new relationships which supported the intended changes in behaviour and attitudes
- From self-doubt and a lowered sense of self esteem → a heightened sense of self esteem
- From an external motive for change → an internalized motive for change (Dalton, 1979, p. 476)

The sub-processes of change that Dalton identified in Lewin’s three-step model become helpful guides for educational programs interested in creating lasting change.

Lewin’s three-step model for change and Siedman’s phenomenological interviewing sequence provided a framework for the interviewing instrument for this research. Given the current ecological issues being faced and the self-destructive trajectory on which industrial society is set, transformative learning through environmental education suggests a potential remedy. From this perspective, exposing individuals to their home landscapes and communities from a different point of view may potentially provide an opportunity for revelation of the personal meaning embedded within these places. From this vantage point, individuals can begin to be engaged in critical thought, dialogue and a process of personal and social identity that may reorient their relationship with both the human and non-human world. The process may provide a catalyst for transformation of thought and action as individuals realize their place within the larger human and biotic community.
Ecological Identity and Self-Realization

Naess (2008) tentatively introduced the concept of ecological identity and the formation of an ecosophy in the essay “Self-Realization: An Ecological Approach to Being in the World” in his book The Ecology of Wisdom. “Ecosophy is derived from the word ecology, the study of interrelationships, and Sophia, wisdom (Drengson & Devall, 2008, p. vii). In this essay, Naess put forward six points for consideration in widening our relationship and reaching a state of self-realization and ecological identity:

1. We underestimate ourselves. We tend to confuse ourselves with a narrow ego-based concept.

2. Through a process of maturity, we ultimately begin to identify ourselves with the wider biotic community. We reach a maturity in all our relationships.

3. The traditional notion of maturity of self progresses through three stages of development, from ego to social self, and from social self to metaphysical self. Nature is largely absent from this progression of self. Our home and natural environment, including identification with the living world, is ignored. Our ecological self is in and of nature from our very origins. Our relationship with humans, human community and all living things is of vital importance.

4. Increased self-realization entails a widening and deepening of self that enhances the experience of living and the meaning of life.

5. Through the maturing process comes an increasing identification with others. As our concept of self deepens and widens we cannot help but see ourselves in others.

6. We face serious ecological challenges that threaten the planet. These threats violate our own self interests and the self interest of the entire biotic community. This threat diminishes the possibilities of a joyful existence for all. (adapted from Naess, 2008)

Implicit in Naess’s proposition of self-realization is that an individual would have a basic understanding of ecological systems and a caring connection to the natural world. These two elements form the foundation of developing a personal ecological identity.

Similar notions can be found in Leopold’s (1949) essay “The Land Ethic,” within his book A Sand Country Almanac, which outlines what is required to develop an
ecological consciousness: “It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for the land, and a high regard for its value” (p. 223). Leopold goes on to state that “one of the requisites for an ecological comprehension of land is an understanding of ecology” (p. 224). For Leopold this required developing a holistic sense of place. Comprehension of the land and ecology were keys to Leopold’s essay. Leopold’s notion of ecological consciousness may be an expression of one of the diverse ecosphies that may assist individuals in “actualizing self realization” (Drengson & Devall, 2008, p. vii). From Leopold’s work, A Sand Country Almanac, Knapp (2005) developed 10 ways of knowing nature that assist in developing an ecological consciousness:

1. Wondering and questioning
2. Knowing local history
3. Observing seasonal change
4. Listening intently
5. Counting and measuring
6. Empathizing with and personifying nature
7. Connecting elements in cycles
8. Finding beauty
9. Seeking solitude and reflection
10. Improving land health

Implicit in Knapp’s (2005) framework for achieving ecological consciousness is that getting to know nature and ecological systems involves the acceptance and acknowledgement of subjective experience of place. It acknowledges the embodied
experience and rational mind but leaves room for the non-rational or numinous experience. Knapp’s model, which was rooted in Leopold’s (1949) work, reveals nature as a phenomenon of interrelationships that are best explored through an open engagement with nature. Within Knapp’s (2005), Leopold’s (1949) and Naess’s (2008) works, an ecocentric view of the world is revealed. Ecological consciousness includes understanding the land and forming a strong emotional bond to the wider biotic community; it represents an expression of an ecoshopy and a framework for self realization and ecological identity.

Related sentiments can be found in Orr’s (1992b) essay “Ecological Literacy,” where he states that an “ecologically literate person has the knowledge necessary to comprehend interrelatedness, and an attitude of care or stewardship” (p. 92). Orr goes on to describe ecoliteracy as a practice that constitutes “knowing, caring and practical competence” (p. 92). Ecological consciousness, ecological literacy, and ecological identity are all intertwined in Naess’s concept of self-realization. They all represent ecosophies with conceptual models that assist in the process of developing an identity within larger ecological systems as an intricate part of the development of an ecocentric world view (Ballantyne & Packer, 1996).

Ecological identity is grounded in a person’s relationship with the natural world. It is a process of personal identification that causes individuals to “consider how their actions, values and ideals are framed according to their perceptions of nature” (Thomashow, 1995, p. xiii). Thomashow’s notion of ecological identity can be seen to closely resemble Arne Naess’s conception of ecosphosy, an evolving process of developing an individual’s “personal code of values and a view of the world which guides
one’s own decisions” as they relate to nature (Naess, 1989, p. 36). The dynamic process of ecological identity formation, or development of an ecosophy, involves a critical component of self-examination that strives to understand personal motivations, aspirations, values, decisions and actions as they relate to the environment. Naess (2008) asks, “What would be a paradigm situation involving identification? It would be a situation that elicits intense empathy” (p. 83). This may be a key question and answer in developing a pedagogical model for ecological praxis. Naess provides insights on how one may elicit deep empathy, suggesting that identification with their home place may be the place to start. He suggests that home place may be seen as “part of themselves—that they have identified with features of place. And the way of life in the tiny locality, the density of social relations, has formed their person” (p. 87). The importance of place in the formation of ecological identity has been expanded on by a number of ecophilosophers and educators over the years, and its efficacy to assist the process of self-identification and environmental empathy should not be underestimated (Berry, 1987; Leopold, 1949; Orr, 1992a; Sobel, 2005; Thomashow, 1995; Van Matre, 1990). Naess suggested that through identification an individual “may come to see that their own interests are served by conservation, through genuine self-love, the love of a widened and deepened self” (p. 85).

A study conducted by Hayes-Conroy and Vanderbeck (2005) has highlighted how ecological identity work provides powerful insight into “the relationship between environmental philosophy, identity and action” (p. 327). Developing an ethical worldview that includes the wider biotic community can lead to identity with the nature and seeing the interrelationship of all living things. This in turn can lead to deepening of self that
Naess (2008) believed was so important for self-realization to occur. Once we identify and acknowledge our connection and interrelation with the wider biotic community, environmental action becomes essential for our own well being. Both Thomashow (1995) and Naess (1989) have agreed that the process of relating to nature involves forming a connection with nature and that an individual’s immediate experience in nature serves as a powerful catalyst for creating bonds leading to commitment and action. Developing wilderness environmental education programs that allow participants time to explore their interconnectedness with the wider biotic community could provide opportunities for a deepening of identity, transformation and self-realization.

The key themes within the professional literature—experiential education, consideration of a range of well documented outdoor education programs, wilderness expeditions as rite of passage, ecological identity and self-realization, and transformative change—provide the intellectual context that informs this research. Drawing upon this literature serves three important processes. First, it recognizes the varied range of theories, ideas and histories that shape current outdoor environmental education practice. Second, it made it possible to select and adapt a suitable methodology for the research. Finally, it provided a theoretical perspective to assist with the analysis and discussion of the research findings. It is to the methodology used in phenomenology that I now turn my attention in the proceeding section.
Chapter Three: Research Methodology

*Design and Rationale*

Applying a phenomenological approach allows for a deep investigation into participants’ learning experiences in the SLLP and is in keeping with the pedagogic aspirations and practices of experiential education, outdoor environmental education and transformational change. Phenomenology focuses on the description of an experience based on the perspectives of the participants involved in the research study (Groenewald, 2004; Hycner, 1985). Through a process of asking probing questions that explore the “why” and “how” of an experience, the researcher attempts to reveal the essence of the phenomenon being explored. Through this form of questioning a rich, thick description of the experience is exposed (Groenewald, 2004). Edmund Husserl developed a phenomenological orientation within philosophy in the twentieth century (Patton, 2002). Husserl postulated that humans could only know what they experienced. Human experience begins with engaging one’s senses and then interpreting meaning to stir conscious awareness (Husserl, 1970) or, as Max van Manen (1997) has stated, lived experience is the breath of meaning (p. 36). Other philosophical scholars who significantly contributed to the human science of phenomenology include Heidegger (as translated by Knell, 1978) and Merleau-Ponty (2002). Both scholars significantly extended Husserl’s original philosophy which challenged the purely objective view of the world. Their contributions strengthened Husserl’s original postulation that subjectivity provided a crucial connection with knowledge and how human beings experience the world (van Manen, 1997). The branch of philosophical inquiry that arose does not reject objective science but rather insists that human subjective experience of the world is a
source of understanding that we must place prior to any objective abstraction of meaning (Wattchow, 2006).

The purpose of phenomenological investigation thus becomes one of investigating individual unique experience and the subsequent meaning derived as insight into the possible experiences of others (van Manen, 1997). When inquiring into the experience of an individual, the researcher attempts to capture the essence of that experience, not to determine a universal truth, but to establish the true nature of an experience from one unique perspective. The researcher’s carefully crafted descriptions of the participant’s lived experiences provides others with the opportunity to reflect upon it, relate to it and consider it in relation to their own situation and context. As van Manen (1997) asserted:

The point of phenomenological research is to “borrow” other people’s experiences and their reflections on their experiences in order to come to an understanding of the deeper meaning or significance of an aspect of human experience in the context of the whole human experience. (p. 62)

When investigating an individual’s unique experience, the researcher attempts to understand the personal meaning of the experience to that unique individual in their life. From that point, there is the possibility that that experience or meaning can provide insight into the broader complex phenomena of human experience and understanding.

One of the great legacies of Husserl’s work was the development of his conception of the lifeworld of humans (Wattchow, 2006). Abram (1996), a renowned American philosopher and cultural ecologist, expanded on Hussel’s conception of lifeworlds and their potential in shaping thought within the ecological movement in his book, The Spell of the Sensuous. The lifeworld, according to Abram, “is the world of our immediate lived experience, as we live it, prior to any thoughts about it”; it is “reality as it
engages us before being analyzed by our theories or our science” (1996, p. 40). Husserl’s lifeworld was expanded on by Heidegger and Merleau-Ponty to provide four fundamental existential grounds from which all human experiences can be considered (van Manen, 1996). According to van Manen, these four existential themes of the lifeworld pervade all human experience: “lived space (spatiality), lived body (corporeality), lived time (temporality), and the lived human relation (relationality or communality)” (1997, p.101). For the phenomenologist, these four fundamental existential themes may guide reflection and the interview questions for the research process. Abram has suggested that the human science of lifeworld investigation holds great promise for the field of environmental philosophy and humanity as it has the potential to awaken our senses and perceptions to the world that sustains us (1996). From this place, a new environmental ethic and stewardship approach may arise.

In-depth interviews were utilized to provide rich “experiential data” (van Manen, 1997) about the SLLP learning experience and possible life changes that may have occurred as a result of participation. In-depth interviews were chosen as the primary method of data gathering as they can reveal aspects of personal knowledge that can not readily be observed. Patton (2002) has commented that the purpose of interviews . . . is to allow us to enter into the other person’s perspective. Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit. We interview to find out what is on someone else’s mind, to gather their stories. (p. 341)

Semi-structured interactive interviews conducted in a quiet location provided participants with the opportunity to reflect upon, and express the meaning of their lived experience. The participants were given freedom and flexibility to recall and reflect on their
experiences and the learning process involved in the SLLP, so that a narrative of their experience could emerge (Moustakas, 1994).

Participants were selected using purposeful intensity sampling; “intensity sampling consists of information-rich cases that manifest the phenomenon of interest intensely (but not extremely)” (Patton, 2002, p. 171). The executive director of RSBC provided insight, information and the contact information for alumni of the SLLP who were potential candidates for the study. Drawing from the executive director’s information, a short list of potential participants was established, and letters inviting participation were sent out. Based on the responses, three individuals were selected. Once the participants had been selected, a letter of informed consent was mailed to potential participants that provided more detail on the nature, scope and purpose of the research. The number of participants was intentionally small given the aim and scope of this study and the time and resources required to complete the series of three in-depth interviews with each participant. As previously discussed, it is vital that ecological educators gain greater insights into the complexity of human experience in relation to ecological praxis and transformational learning. This can only be achieved through research that reveals the individual richness of unique cases. I selected a gender mix within the participants in the study that allowed for some comparison of the gendered dynamic of participants’ experiences.

Data Collection

The interviewing approach followed the in-depth phenomenological model proposed by Seidman (1998). This model involves a series of three separate interviews designed to gather data on (1) focused life history, (2) the details of the experience, and,
(3) reflection on the meaning. For the purpose of this research I modified Seidman’s original model by conducting two, instead of three, interviews. The first interview with each participant explored both a focused life history and details of their SLLP experience. The second interview focused solely on the reflection of meaning of key statements made in the first interview. Utilizing a series of interviews revealed the context of the experience and facilitated an understanding of how meaning arose from such experiences (Seidman, 1998). As Patton (2002) suggests, without context there is little opportunity to investigate the process of meaning making. Conducting two interviews over time also allowed individuals to incorporate this research process into their narrative reflections. Additionally, the two interview series allowed the data and transcriptions from the first interview formed a foundation of key concepts, ideas and stories from which the researcher followed up. This multi-interview process allowed the researcher to ask questions, encouraged self-reflection, and engaged participants in what developed into a rich, ongoing dialogue.

Seidman’s model for phenomenological interviews and Lewin’s change theory provided the framework and structure for the interviews. Specific questions that inquire into the lived experience of participants arose from a critical review of relevant literature as it was presented in the literature review.

Probing open-ended questions were asked to elicit responses from the participants and to keep the interview on track. This method also provided flexibility in that when a topic was exhausted, a new topic or line of questioning could be introduced (Cohen, Manion & Morrison, 2007). Seidman’s model of a series of interviews enables participants’ answers to be carefully considered in the time between interviews, and then
be explored in greater depth in the final interview. Interviews were up to 90 minutes in length and were digitally recorded for transcription and analysis. Memos were taken over the duration of the interviews to capture any contextual influences and nonverbal communication relevant to the evaluation (Groenewald, 2004). Reflections from the researcher were written up post interview to consolidate and expand on any memo taking that occurred (Creswell, 1998).

**Data Analysis and Trustworthiness**

Phenomenological research requires ongoing data analysis that takes place throughout the transcribing, interpreting and writing phases of the study. However, before the data analysis can begin, it is important that the accuracy of the transcriptions is established. All interviews were recorded and fully transcribed. These transcriptions formed the basis of experiential data which was analyzed and compiled into rich phenomenological descriptions. This was done by emailing transcripts of interviews to the research participants after each interview and before the next interview in the series (Kovan & Dirkx, 2003). This process provided the interviewee with an opportunity to ensure the accuracy of the transcripts, delete or modify any of their responses, or withdraw from the study if they so wished.

Van Manen (1997) has advocated trustworthiness over validity as he believed the focus of qualitative research was one of meaning. Accordingly, establishing trustworthiness lies in the researchers’ abilities to orient and embed themselves in their research and, in a sense, give themselves over to the phenomenon being examined. This requires the researcher to review the data in a meticulous, thoughtful and self-reflective manner. As Moustakas (1990) has suggested, the researcher must ask, “Does the ultimate
depiction of the experience derived from one’s own rigorous, exhaustive self-searching and from the explications of others present comprehensively, vividly, and accurately capture the meaning and essence of the experience?” (p. 33).

Once the accuracy of the transcripts has been established, the process of deriving units of meaning begins (Bernard & Ryan, 2000; Hycner, 1985). Themes became the units of meaning and generative guide from which I structured my research writing, and through thematic identification, I uncovered the feelings and deep meaning of the participant’s experiences. The compilation of themes from the individuals’ interview transcripts were conducted in a detailed line by line review of the transcripts. Lines, sentences and quotes from the transcripts were coded in units of similar meaning and then cut and sorted into thematic clusters (Bernard & Ryan, 2000; Hycner, 1985). Every sentence or cluster of sentences was carefully reflected upon in an attempt to ascertain the deeper meaning and nature of the experience (van Manen, 1997). The themes became the metaphorical knots that linked the web of experience into a meaningful whole (van Manen, 1997). The themes generated from the transcripts were crafted into a description of the participants’ lived experience in the SLLP and returned to the participants for feedback and comments. Upon confirmation of the accuracy of the thematic interpretation, the essential themes were transformed into a final phenomenological textual description. As a final step in establishing the trustworthiness of this research, I conducted what Creswell (1998) called “rational analysis,” where I asked if the patterns logically fit together and if the themes were well grounded and well supported. Ultimately, for the phenomenological researcher, the most significant question is, Did the researcher’s interpretation capture the essence of the participant’s experience? In this
sense, analysis and trustworthiness of my research and data was ongoing and recursive throughout the researching process.

Confidentiality and anonymity of the research participants was maintained by ensuring that no identifying information remained on the transcripts, that participants’ names were changed, and that interview recordings and transcripts were kept in a locked cabinet and a password-encrypted computer. Only my project supervisor and I had access to these files.

Finally, it is important to recognize that phenomenology cannot be used to prove or show anything in a universal or generalized sense. To do so is not the objective of phenomenological research. According to van Manen (1997), phenomenological studies cannot prove efficiency, generate law-like statements or establish functional relationship. Although this may limit the transferability of findings, it does not diminish their relevance or value. Instead, phenomenological description provides insight into a particular, unique human experience so that we might make meaning of it and from it. The values of the findings are highly personal to each individual reading the descriptions, but it was the integrity of the research process and the quality of the crafted descriptions of humans experiencing a complex phenomenon such as ecological praxis and transformational learning that was at the heart of this research. As van Manen (1997) has suggested, it is the insight yielded from such research that provides researchers and practitioners with increased opportunities to understand the nature of human experience, and, therefore to refine their methodological and pedagogical practices. With this in mind I now turn to the presentation of the descriptive findings of the research into participants lived experiences of the SLLP and its impact upon their lives.
Reading of the Waters—Interpreting Stories from the River

I have carefully outlined the research question and critiqued the relevant literature in the emerging professional fields of experiential, outdoor and environmental education. This made it possible to make a sound choice of research methodology based upon a phenomenological examination of participants of the SLLP program, which aimed at revealing the essential qualities of their lived experiences. The presentation of “findings” was via a narrative of participants’ journey down the Fraser River and the parallel learning journey. The following recounting of stories attempted to faithfully relay the lived experiences of participants. Accompanying participants’ accounts is a “Reading of the Waters” where the researcher’s interpretation of the experiences attempts to represent the meaning of the narratives as they relate to the central research questions previously outlined in the Introduction. The recounting and subsequent “readings” of participants’ stories are organized thematically using a river metaphor consisting of a headwaters, a river course and a return to the sea. Each theme contains a number of subthemes revealed through analysis of the data that help express the depth of the experiences being explored.

The representation and “reading” of the river stories under each theme and subtheme are analogous to research findings. The recounting of stories is arranged to present representative extracts from participants’ interviews. The format used to refer to these sources includes the pseudonym, interview session and the line number from the original transcript, for example (William, Interview 1, 34–65). The “Reading of the Waters” serves as a discussion of the themes as they relate to the SLLP and the overall field of environmental education.
The representation of the narratives using a river metaphor was chosen for a variety of reasons. First, the metaphor mirrors the participants’ physical journey down the Fraser in the SLLP. Second, the arrangement of themes fits Seidman’s model for qualitative interviews and also reflects important aspects of Lewin’s model for change. And, finally, rivers depict a very visual model of ecological systems and a cyclical framework for thinking, perhaps a powerful metaphor for human life (Schama, 1995).

No river is ever run the same way twice. Perspectives form and change in the moment. When we set upon the water, we are swept downstream attempting to faithfully enact what we read on the surface of the water. The result is never the same as a paddler attempts to navigate the subtleties and complexities of the river. Yet each time we set upon the river as a paddler, we deliberately try to place our craft on the line we perceived from shore. We try to stay true “to our line.” It is impossible to run every line in a river rapid. Ever-changing perspectives and physical structures make this a lifelong endeavour. Some lines through the rapid must be left for another day. The same analogy can be used in the research process of this study. Each interpretation is one telling or one perspective of many possibilities. As a researcher I have done my best to accurately organize participants’ stories and stay trustworthy to the story “line” in the interpretations and discussions that follow. The experiential data (van Manen, 1997) collected in this study was so rich and detailed that it was not possible to represent it completely in the following textual descriptions. Hence, the following narratives represent the most significant themes that arose as a result of thematic analysis, prolonged reflection upon the meaning of the data, and an extensive drafting and redrafting writing process.
The dominant themes that arose from participants’ own stories from the SLLP process are arranged as follows: The Headwaters of Environmentalism, The River Runs Through Us and Sea of Change. A more detailed introduction of these themes is summarized as follows:

- **Theme One—the Headwaters of Environmentalism.** Participants expressed a powerful connection to nature, places and people from their childhood. While not a central question of this research, the origins of each participant’s environmental empathy provided important context for understanding the learning journey and resultant change from program participation. Theme One is presented under the following subheadings: a) You’ve got your little hiding places and secret places, and b) He was there with me all that time that I was out in the environment and falling in love with nature.

- **Theme Two—The River Runs Through Us.** Participants expressed the river journey as a learning journey, highlighting the complex and varied way in which learning took place. The excerpts in this section suggest the potential of a pedagogical model for wilderness-based environmental education programs. Theme Two is presented by the following subheadings: a) The river was our teacher, b) We all had something to offer and share, and c) I felt I was part of something bigger than myself.

- **Theme Three—Seas of Change.** Participants expressed changes in themselves and in their environmental advocacy work upon completion of the SLLP. Theme Three is addressed under the following subheadings: a) They’ve been kind of a support system, and b) Definitely I’m committed.
Theme One—the Headwaters of Environmentalism

This section arranges narrative extracts from participants’ early childhood experiences in nature. For each of the three participants in the research—Meredith, Christy and William—these stories emerged as a significant theme in the “life history” and follow-up interviews and provide important contextual background for consideration in regards to the learning and change that took place as a result of their participation in the SLLP. The role of significant life experience in forming a connection to nature is discussed in the “Reading of the Waters” section that follows. The narrative findings of “The Headwaters of Environmentalism” highlight how, during childhood, time spent in nature with special people in special places played an important role in developing participant’s environmental empathy. The narratives are arranged in two subheadings: a) You’ve got your little hiding places and secret places, and b) He was there with me all that time that I was out in the environment and falling in love with nature.

a) You’ve got your little hiding places and secret places.

Having a special place in wild or domesticated nature was expressed by all participants as being important in the early formation of their environmental values and their connection to the natural world. Positive unstructured play experiences in these special places fostered environmental empathy, place connection, imagination and exploration (Louv, 2008). Research on significant life experience has highlighted the importance of time spent in nature and place attachment in childhood in influencing future environmental awareness, attitudes and behaviours (Chawla, 1998; Chawla, 1999; Chawla, 2006; Palmer, 1993; Palmer & Suggate, 1996; Palmer, Suggate, Bajd, & Tsaliki, 1998; Palmer, Suggate, Robottom, & Hart, 1999; Tanner, 1980; Wells & Lekies, 2006).
References to experiences in these special places seemed to resonate through all of the program participants’ stories and had an influence on their work as environmental advocates. Meredith describes how her experiences on her childhood beach in Deep River and the ravine in her neighbourhood influenced her environmental sensibilities.

Spending time in the water and on the beach and in the ravine. It made me realize that they have a value, that they meant something to me, that they brought me pleasure and it was a place where I felt relaxed and happy. So I suppose they gave me a personal value first and foremost. I wasn’t thinking about the value of the ecological services they provide, but more in terms of how giving me a place a nice place to go outdoors. (Meredith, Interview 2, 16–21)

Time spent in the outdoors began to lay a pathway toward appreciation of the natural world. The world of lived experiences became key in this process.

I mean it’s almost indescribable. It’s seeing sunlight bounce off the water, the feeling and the smell of dirt, of moss or trees. You know, breathing fresh air. I don’t think anyone can really teach or impart that appreciation; it’s just something that I experienced and therefore I appreciate it. (Meredith, Interview 2, 55–58)

Another of the participants, Christy, expressed her affinity, connection and concern for Gatineau Park where she spent her childhood hiking in the woods:

I think if I knew that these areas were slated for development or for, you know, or golf course or something like that it would bother me because they were places from my past that were special. It’s just that I’ve seen a lot of wildlife in these areas and in this habitat and I know it’s just not ours for whatever we want to use it for. It already has a purpose and I want it to be left that way and protected even more than it is now. (Christy, Interview 2, 25–30)

William’s comments regarding his family camping experiences reveal a common thread of connection and care woven into the stories of these special places:

Yeah, just that curiosity and going out and experiencing something that was different. You’ve been there before but to see if anything has changed
and it’s just kind of this place that you only get to go to on occasion, so it’s this mystery land that you’ve just developed a special appreciation for. (William, Interview 1, 185–189)

All of these stories took place in what William calls “your little hiding places and secret places” (William, Interview 1, 196). Meredith’s comments on her experiences in the ravine by her childhood home express similar themes:

Yeah, it was in the summer it was cool, it was a cool place, too—I mean temperature wise—and it was like a little secret place we could go. There weren’t a lot of people down there. Definitely no grownups and, you know, I remember feeling like this was our place. Not like we owned it, but like a little refuge. (Meredith, Interview 1, 287–290)

Reading of the Waters

Significant places in nature and, specifically, time in the outdoors and special places in nature, arose as major themes in the lived experiences of participants in this study. While not one of the primary questions in this research project, the early childhood experiences of program participants all expressed the importance of place attachment and early childhood appreciation of nature that may have laid a pathway for later environmental advocacy. The link from past experiences to environmental praxis is perhaps best described by the assumption Chawla (1999) made in her research on significant life experience, that “action is guided by intention and that people’s intentions reflect their past experiences and future goals” (p. 16).

Through the ongoing dialogues I had with my research participants, it became clear that the significant experiences they had in nature held emotional importance to them. They all spoke eloquently, passionately and at some length about the places of their childhood. The sense of wonder (Carson, 1984) developed early in life resonated through the rest of our conversations. Perhaps it is here where the “good conversations” with
nature and a basic “understanding the environment” that Orr (1992b) talks about, took root for the participants. These early experiences or “conversations” with nature may foster and nurture a sense of “biophilia,” a term coined by E. O. Wilson (1984) to explain humans’ natural affinity to the biotic world. Attachment and understanding may provide a foundation for action. It may be, as Stephen Jay Gould insisted in his article, “Enchanted Evening in Nature,” that “we will not fight to save what we do not love” (in Orr, 1992a, p. 6). Developing an emotive or affective attachment to the natural world is often rooted in a specific place or location.

The notion of place attachment resonates with how Tuan (1974) described place as a center of meaning construction formed by experience. Tuan (1977) suggested that physical location only becomes a “place” when individuals attach meaning to a geographical location over time. It is the culmination of experience, “the intertwining of meaning, activities and a particular landscape as well as to the felt sense of belonging to a place that emerges from these experiences” (Cameron, 2001, p. 28) that allow individuals to develop a sense of place. All of the participants’ stories reflect Cameron’s idea of sense of place. Additionally, all of the participant’s descriptions of childhood experiences in nature mirror the playfulness and imagination Tuan (1977) writes of in his explanation of how young people make sense of space and place. The meaning children attach to these special places in nature could be the beginning of what Louv (2008) terms “environmental attachment theory” (p. 303). The theory’s premise is that once attachment to a place is formed, a reciprocal relation begins to develop that is beneficial both to the child and the place (Louv, 2008). Environmental attachment theory may provide one of the many small tributaries that shape individuals’ future environmental interest.
Chawla (2006) began to tentatively develop a more practical reason why free play in nature may assist environmental advocates in the future. Chawla (2006) suggested that free movement in nature is a field of promoted action where children can see immediate effects of their actions, gauge their capabilities and learn how the world works. Many of these skills may be considered essential later in life and particularly serve advocates well in their work for the environment.

Special places from childhood was an inquiry included for two reasons. The first was to provide context for the research and to ensure that the plausible insights of the SLLP were not overstated. Participation in the program stemmed from a strong connection to the living world based in formative experiences from childhood. Indeed all the participants of this research project were passionate, dedicate individuals engaged in what Berry (1999) called “great work” prior to their participation in the SLLP. Second, the lessons from participants’ childhood experiences in special places provide cues for river-based pedagogical practices. It is plausible that an expedition-based river trip has the potential to inspire a renewed sense of wonder and imbue the Fraser River as a special place for program participants. As Thomashow (2002) has suggested, “a state of wonder is the basis for an ethic of care” (p. 57). Thomashow’s state of wonder from spending time in nature seems evident in all of the participant’s stories. These meaningful and deep experiences of place seem to be significant rivulets in the headwaters of participants’ environmentalism, while based on a small intensity sample, it is apparent that significant places in childhood informed all the participants’ later environmental sensibilities.
b) He was there with me all that time that I was out in the environment and falling in love with nature.

Nature and experiences in nature were often introduced to participants by a significant person: a parent or teacher. The research on significant life experience seems to support the importance of positive role models in nature as being a contributing factor to future environmental awareness and behaviours (Chawla, 1998; Chawla, 1999; Chawla, 2006; Palmer, 1993; Palmer & Suggate, 1996, Palmer et al., 1998; Palmer et al., 1999; Tanner, 1980). These environmental role models and mentors imparted an appreciation for nature to participants by providing opportunities to explore, play and learn about nature whilst in nature. According to Chawla (2009), these special people communicate a contagious attentiveness that teaches children that something is worth noticing and is important to a culture, that perspectives may be sympathetic or empathetic, that there are moral norms, and that there is a way to take action when we care for something. William made a statement regarding his father and his involvement with Boy Scouts which emphasized the important role special people play in developing a person’s appreciation of nature:

But having my Dad there was kind of—well he’s my Dad so he’s my role model just for that, and then he’s always taught me all these things and there with me all that time that I was out in the environment and falling in love with nature (William, Interview 1, 179–181)

The involvement of special people created learning experiences, and Christy’s remarks seems to highlight Chawla’s (2006) notion of joint attention. In this case joint attention a father focusing a daughter’s attention on the natural world: “Just learning from him [Dad] and learning from my own experiences has probably made me more
compassionate towards habitat that belongs to other species” (Christy, Interview 1, 86–87).

Sometimes, special people were the catalyst for providing opportunities to be outdoors. As Meredith comments, her mother was a key figure animating the positive interactive cycles of discovery that lead to an appreciation of nature (Chawla, 2006): “Mom wanted us outside, encouraged us to be outside as much as possible when we were little. So that probably has something to do with my love for the outdoors now” (Meredith, Interview 1, 40–41). Similar themes resonate throughout Meredith’s narrative of her parents’ role in her childhood:

I think just giving me the opportunity to be outdoors allowed me to learn to appreciate it on my own. It wasn’t necessarily a lesson that they taught me and I think I mentioned that you know that I was taught not to litter and if we had a picnic to make sure and pick everything up and to not hurt animals and be respectful to nature. But I don’t think the appreciation was something that was taught. I think it was more intrinsic and I think it’s something you can only really appreciate when you are outdoors. (Meredith, Interview 2, 49–55)

Christy’s comments on her father sum up the important roles these people played in generating environmental empathy: “I know why now I love nature” (Christy, Interview 1, 129) “. . . I mean I’m so thankful that my Dad dragged us out all that time” (Christy, Interview 1, 132).

Reading of the Waters

All of the participants’ stories in this study consistently mentioned the role special people played in laying a foundation for future environmental appreciation. Parents often acted as role models just through the sheer act of taking their children to places in nature. By sharing in their children’s fascination and enjoyment they modelled
“care for the natural world” and “care for the child” (Chawla, 2006, p.74). As Carson (1984) so aptly stated, “If a child is to keep alive his inborn sense of wonder, he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement and mystery of the world we live in” (1984, p. 45).

All of the participants in this study seemed to have just such a companion. In the stories participants in my study shared with me, their autobiographical accounts followed a chronological order. The realm and role of special people extended as time and place dictated. Special people who influenced participants’ environmental sensibility included grandparents, teachers, peers and college or university professors. Upon reaching early adulthood, the bond or link to such people became more tenuous and difficult to define. By looking at the role of significant people in the formation of early childhood experiences, we may begin to search for pedagogical clues for environmental education programs. While this research suggests that special people did play a significant role in the environmental sensibilities of the research study participants, it may be too much of a generalization to assume that this phenomenon happens to everyone.

This raises an interesting question for environmental educators: Is it possible to develop role models in adulthood who, through their contagious attentiveness to and fascination with the natural world, can communicate values and moral norms that teach others to take action in the things we care for? Research into significant life experiences may hold a host of pedagogical practices for adult environmental education. From a phenomenological perspective, educators may gain more understanding regarding the promise and power of formative experiences in the grand realm of human experience. It may be possible that what was seminal in childhood may still be significant in adulthood.
Memory and experience change over time; how individuals make meaning of these things plays an important part in the construction of environmental advocates’ ecological identity moving into the future (Chawla, 2006; Thomashow, 1995).

Like a river’s catch basin for rain and snowmelt, these significant childhood experiences provide the catch basin for environmental appreciation, which, when combined with participants’ other life experiences, create a current of environmental advocacy in each individual. Practitioners of environmental education may consider how the role of special places and special people may be fused into their programs and practices. Immersing participants in a special place for a length of time, such as a three-week trip down the Fraser River, and utilizing facilitators/mentors/role models such as Fin Donnelly may be key elements of a river-based pedagogical model for environmental praxis.

**Theme Two—The River Runs Through Us**

The narratives in this section focus on how the river journey also served as a learning journey. Environmental learning on the river occurred in a variety of instances and forms. The process of learning seemed socially situated, framed by the context of the Fraser River, and was a journey of meaning making, a journey that seemed to enrich participants’ relationships and connectivity with the river, nature and the group. The narratives in this section are arranged into three sub-headings: a) We were travelling on the river. It was our teacher; b) We all had something to offer and share; and c) I felt I was part of something bigger than myself.
a) We were travelling on the river. It was our teacher.

The experience of travelling the river from its source in the Rocky Mountains to the Pacific Ocean provided learning experiences that were expressed in a variety of ways. The river’s long route to the sea emphasizes ecological connectivity. Rivers, as opposed to other geographical or landscape features, are a unique setting in which to teach environmental education. When we situate a river system within the large hydrological system, an opportunity arises to embed and immerse individuals in the lived experience of the larger ecological system in which all life is a part. While we are always embedded in ecological systems, our fast-paced, mobile, urban world can make it difficult to interact with such systems in a deep and meaningful way (Plumwood, 2000). A river trip provides an opportunity to engage our emotions and intellect in an ecological system that provides the conditions and basis for all life (Canadian Ministry of Environment, 1996). Christy’s comments begin to reflect this experience:

Wow, I realized how little I know about the rivers that are flowing through my very own community. It was a real eye-opener; of course I know that what’s up the river affects what’s down the river and vice versa in terms of salmon going up the river. But it’s different when you actually go down the entire river and see it with your own eyes. So that was a real eye-opener. Then it all clicked, it all kind of came together. (Christy, Interview 1,183–189)

William’s stories echo similarities: “Well it really emphasizes the interconnectivity” (William, Interview 2, 320). He goes on to share:

I had an understanding and an appreciation for that before, but now having travelled the whole thing, it really kind of getting the sense of the whole place. It’s all kind linked together and even though it’s massive and includes all these kind of sub-regions, it works. I have more of an appreciation, more of a sense of how delicate and how fragile it really is. (William, Interview 2, 326–330)
Many of the lessons learned were a direct result of travelling the river and the experience of being there, as Christy states: “To travel from the headwaters to the ocean was absolutely necessary for me to understand the experience that I went through” (Christy, Interview 1, 258–259).

Participants also commented on recognizing the formative nature of the river on both people and the landscape. As Meredith remarks, she was “... following the Fraser from source to sea and seeing firsthand why it’s important to people and how it shapes BC [British Columbia] geography and British Columbia’s lifestyles, like farming and fishing” (Meredith, Interview 2, 481–483). An example of this type of learning was reiterated by several participants when they passed through the traditional First Nations fishing ground at Bridge River. Meredith remarks:

I guess it was experiencing what I had heard about but not really understood until I saw it. Dozens of families out there fishing and, you know, filleting and drying their fish, and I realized this is what people mean when they talk about the demise of the Fraser River salmon. Until then I’d thought that it would be sad but I hadn’t realized what an impact it would have on communities like those. (Meredith, Interview 1, 562–566)

The rivers hold the potential and possibility to generate personal experiences that can lead to a more comprehensive understanding of the broader land. Perspectives of the river were further expanded in the lower reaches of the river, perspectives that could have only been challenged by experiencing the river, as Meredith once again remarks:

I had another eye-opening moment when I saw how much industry had developed on that part of the Fraser. Most of it had shut down by then, but it was still there either in ground fields that used to be old mills or rotting ships or barges and all the log booms that still existed. All of the activity that was still taking place compared to what a beehive it must have been in the ’50s or ’60s. But at the same time there was still quite a bit of life. You’d see, you know, swarms or swallows in the evening, like, skimming above the water. You’d hear coyotes and this was around Coquitlam, so
there was urban development too. We saw a lot of coyotes, we saw sturgeon jumping, seals in the water, so I guess it kind of challenged the idea that all of the wildlife or nature goes away when a housing development goes up or a mill goes up. It’s still there, there just sort of trying to get by on less and less space. (Meredith, Interview 1, 640–650)

The learning that occurred was a direct result of the river and travelling on it. Meredith states:

I mean the more time on the river and the more of the river you see, it deepens your understanding—I think any time, one day on the river just to get out and, you know, see it from the river out instead of looking from the land at the water. Even just going out in a canoe for an hour I think gives you a different perspective that will deepen your understanding a little bit. (Meredith, Interview 2, 160–164)

The journey down the river was a journey of learning. As Meredith concluded; “We were travelling on the river. It was our teacher (Meredith, Interview 1, 772).

*Reading of the Waters*

The movement and mobility inherent in the hydrological cycle may be a useful feature of a river for developing a pedagogy that leads to transformation and ecological praxis. Cuthbertson, Heine & Whitson (1997) have expanded on the potential mobility may play in this process, “the enhanced possibility that the process of connecting to multiple landscapes may contribute to a more holistic sense of place. This, in turn, encourages greater empathy for the integrity of places where others live” (p. 5). As Thomashow (2002) simply stated, “anytime you move between places you have an opportunity to enhance perception” (p.100). These types of experiences hold the potential to lead to a new level of comprehension that “happens in open reflection as one sees the local situation as participant of the systemic relations that constitute the world (cosmos, biosphere, culture) to which it pertains” (Maturana & Bunnel, 1997, p. 9). Stories from
the river told by William, Meredith and Christy suggest a continuous cycle of experience and reflection (Itin, 1999; Joplin, 1981; Kolb, 1984). Many of these reflections seemed to enhance the participants’ ecological understanding and deepened their connection to the river and surrounding landscape. As Mulligan (2003) stated,

> . . . knowledge and stories associated with places we pass through can help us to feel better oriented, more constantly “connected.” A sense of belonging extends from the local to the regional and beyond, and a sense of belonging can lead to a stronger sense of responsibility. (p. 278)

The daily historic living practices while travelling on the river provide the time and space to deepen into a multitude of places and contemplating not just landscape connectivity, but ecological connectivity as well. When the conceptual model of the hydrological cycle and its redistribution of the elements necessary for life are combined with the daily living practices and mobility of river travel, the potential arises to be in an arena ripe for Naess’s concept of self-realization. As Cuthbertson et al. (1997) expressed, “the movement from a localized sense of place to a more holistic version means that culturally and ecologically sensitive outdoor educators have begun developing a concept of Place that parallels the relationship between self and Self” (p. 6). The uniqueness of the river environment may be a potent arena for the process of self-realization to occur. Self-realization in the river environment may provide an opportunity for individuals to come to a deeper understanding of their place in the ecological and cosmic order of things. Raffan (1992) has suggested that

> If you believe that the land is a teacher and that it is imbued with instructive powers, if you are prepared to be awed, humbled and inspired by the land, if you are prepared to accept that there are forces at play in the interactions between people and place that are beyond rational explanation, then this becomes the numinous context in which the whole cycle revolves. (p. 393)
A deeper exploration of this idea takes place in the next section. For now I propose that the uniqueness of the river environment and the physical act and daily living practices of travelling on the river may form the basis for a river-based pedagogy for environmental education programs. Movement on the river may help articulate the interconnectedness among individuals, communities and other beings. The river becomes a teacher through the transactions of the individual with a place, and this is embodied in the daily living experiences of travelling the river (Itin, 1999; Raffan, 1992, 1993). From the river experience, an individual may find that the move towards ecological praxis becomes an act of self-love and an act of vital self-interest (Naess, 2008).

b) *I felt I was part of something bigger than myself.*

The interviewees all expressed experiencing profound moments in nature during the course of their journey down the Fraser River. It is possible some individuals experienced moments of self-realization or a greater ecological awareness and that this process could be viewed as a highly spiritual experience. Capra (1996) has explained:

Deep ecological awareness is spiritual or religious awareness. When the concept of the human spirit is understood as the mode of consciousness in which the individual feels a sense of belonging, of connectedness, to the cosmos as a whole, it becomes clear that ecological awareness is spiritual in its deepest essence. (p. 7)

Daily living practices in a river wilderness environment held the potential for participants to explore their relationship with the wider biotic community; the exploration and realizations that surfaced were often sublime. William shares his experience:

When I got down below the big rocky bluff and back into the rolling hills above camp, out of sight, I sat down, closed my eyes and let the hot canyon air just blast over my face. I put my hands firmly on the ground and kind of fell into time with the planet and the earth. You actually feel it kind of pulsing like a bit of energy coming out of the ground, and these
beats. That was kind of a reconnection that I haven’t had for a long time. (William, Interview 1, 610–615)

For Christy these feeling and experiences arose while paddling: “I could be canoeing and get into my own zone… now I have some time to myself when you really don’t but you feel like you do. You really get that connection because and you feel like you’re alone” (Christy, Interview 1, 278–280). For Meredith the experience occurred after participating in a sweat lodge:

In the canyon and [sic] we were camping at French Bar, a spot where Simon Fraser and his men had stashed their canoes because they had been warned that there were rapids coming up and they were going to have to portage. It was a full moon and we built a sweat lodge. I just remember coming out of the sweat lodge and looking at the full moon, and it was coming over the ridge, and it was sort of like it was oozing out of the ridge. I don’t know if you’ve ever seen a moon coming up behind something, behind a cliff or whatever, but it’s almost like the bottom edges are sort of stuck to the feature and it just sort pops up. You can see, like, a little bit of light, like it’s sticking a bit. I don’t know how to explain it but I just remember looking up and feeling an overwhelming, I think I actually dropped to my knees in the sand and looking up actually amazed and feeling connected. It was pretty spiritual. I felt I was part of something bigger than myself. (Meredith, Interview 1, 49–61)

These experiences seemed to heighten participants’ environmental empathy, strengthen their relationship to the wider biotic community and help inform their advocacy work. As William comments,

It makes me feel like a part of something more, something grander than just this fleeting invention that we’ve made around ourselves. Kind of reconnecting to the natural world where we’ve evolved and were supposed to be, theoretically, so... yeah, I guess it’s the feeling of just being where you should be, things being the way that there’re supposed to be, the way they should be. (William, Interview 2, 76–80)
Meredith explains the difficult process of making meaning of those moments:

I suppose it serves as a reminder to why I value nature and a reminder of how do my actions reflect those values, how am I living to respect nature. It seems difficult to use; I would describe it as a spiritual moment. (Meredith, Interview 2, 187–189)

William further explains when he says, “When you’re actually out in these places you can really ground yourself and connect to the landscape around you and the earth and just kind of appreciate things and put things into perspective” (William, Interview 2, 35–37).

These experiences and feelings can result in an internal call to action, as Meredith expresses, “Being inspired by nature, you know, I think motivates you to act to protect it” (Meredith, Interview 2, 442).

Reading of the Waters

William, Meredith, and Christy all expressed stories from the river that bordered on the sublime or were spiritual. The river and surrounding landscape provided participants with an opportunity to be immersed and surrounded by powerful currents and be immersed in the rhythms and forces of nature. Daily living practices of travelling on the river allowed for the embodiment and sensory experience of the immensity and enormity of nature (Sanford, 2007). Permeating through William’s, Meredith’s, and Christy’s stories is a sense of awe and wonder towards the natural world (Carson, 1984; Chawla, 2009; Baker, 2005; Berry, 1999; Thomashow, 1995), this wonder may reside at the heart of their numinous experiences. All of the participants shared stories that expressed an almost spiritual connection to the environment around them. Participants’ stories suggest that the experience of being in and surrounded by nature is the catalyst for their transcendent experience, which echoes Keutzers (1978) findings on triggers for
numinous experiences. Their stories seem to share aspects of Emerson’s sentiment in his essay *Nature*: “The currents of the Universal Being circulate through me; I am part or particle of God” (1836, p. 1). In this case, God may be considered as a connection to the larger cosmological order as reflected in nature. Participants’ stories suggest that the journey of travelling the river provides an intertwined web of nuanced experiences that allow their senses and perceptions to experience the biosphere as it is lived from within (Abram, 1996).

Participants’ stories of living and travelling in the river environment allowed them to experience what Thomashow (2002) refers to as perceptual ecology, where one’s proximity and attentiveness to nature permits a person to engage the senses and apprehend his or her relationship to the environment. In experiencing and perceiving forces greater than themselves in the hydrological energy of the river, and nature in general, participants expressed stories in the realm of the sublime. Their stories capture the spiritual recognition Schama (1995) referred to when he spoke of the divinity of nature. These instances of transaction or embodied experiences with nature where moments of spiritual connection occur (Abram, 1996) may be windows into Naess’s (2008) process of self-realization. Participants, through the process of reflection, gave voice to the challenge of making meaning of these experiences and how they might be applied to their environmental advocacy (Itin, 1999; Joplin, 1985; Naess, 2008). Their stories suggest that in these moments of the numinous and sublime, they may once again have experienced a sense of wonder in the outdoor world. It is from this sense of wonder that an individual may be motivated to move to praxis. As Thomashow (2002) suggested, “to dwell in wonder is to contemplate questions of meaning and purpose” (p. 65).
The efficacy of a river pedagogical model for transformation and ecological praxis may lie in its ability to stimulate numinous or sublime experiences within the realm of the cosmos. However, programming for such experiences is problematic because it involves a complex layering of intertwined, nuanced experiences that arise out of the daily living routines while travelling on the river. The catalysts and experiences of transcendence into the realm of the sublime were different for each participant in this study, and differed in degree and intensity. What appears common between the participants is an empathetic openness and awareness to their surroundings, a settling into their place on the river, in nature and to some degree themselves (Knapp, 2005; Leopold, 1949; Naess, 2008; Palmberg & Kuru, 2000; Thomashow, 1995).

For the participants, these moments seemed to renew their sense of the sacred, allow them to recover their sense of wonder and experience the numinous presence that brought all things into being (Berry, 1999). This is the sublime side of self-realization and the place from which ecological praxis may arise. Naess’s (2008) explanation of the process seems to mirror the experiences and stories of this study’s participants:

As I see it, we need the immense variety of sources of joy opened through increased sensitivity towards the richness and diversity of life and the landscapes of free nature. We all can contribute to this individually, but it is also a question of politics, local and global. Part of the joy stems from the consciousness of our intimate relation to something bigger than our ego, something that has endured for millions of years and is worthy of continued life for millions of years. The requisite care flows naturally if the self is widened and deepened so that the protection of free nature is felt and conceived as protection of ourselves. (p. 93)

This study suggest that experiences on the river in nature provide rich grounds for transcending into the realm of the sublime, and that this in turn may assist in the process of self-realization. The study does not suggest that all experiences on the river and in
nature will result in numinous experiences. Those interested in a pedagogical model that focuses on transformations that lead to ecological practice may want to consider the complex, nuanced ways in which experiences are intertwined which lend themselves to transcendent encounters in the realm of the sublime.

c) *We all had something to offer and share.*

Social relationships shaped the learning process for all of the participants. Learning from each other, the facilitators and the people they met along the way was a common thread in participants’ narratives. The notion of social learning can be found in the early work of Dewey (1956) and can be seen as a critical component of the reflective practices in the work of Kolb (1984), Joplin (1981), Itin, (1999) and Mezirow (2000). Christy encapsulates this when she says, “The river brought us all together. What was great about this was that people had different knowledge about different parts of the river” (Christy, Interview 2, 430–431). William shares the camaraderie that accompanied the learning process:

> Lots of talking and joking around. I mean, when we were going through lessons or discussions on really in-depth issues, there is a lot of thought and discussion that came up. For on the river—just fooling around, just splashing each other and just having a good time, goofing off half of the time, and being half serious, half hard fun. It wasn’t this all serious program, but of a journey and a trip with friends. (William, Interview 1, 839–844)

Meredith expresses how the relationships with program participants informed her own environmental advocacy: “I think that by being inspired by people who are living the values that you share makes you realize, yeah I could do that, too” (Meredith, Interview 2, 442–443).
A consistent mechanism for social learning was structured in a daily sharing circle. Meredith shares the importance this process had in broadening her understanding:

Having the other participants there making observations and asking questions was helpful to me. It’s like I was seeing things through their perspective. Another thing that made it easier to was that we would have sessions at the end of every day on our “moment of the day.” Just going around the circle and sharing our thoughts helped. I was worried that my observations or my perspective would be totally off from the other participants, so it helped to just sort of end of the day in that way—yeah, there’re saying the same things that I’m thinking, or they noticed the same things that I notice. That was helpful. (Meredith, Interview 1, 358–366)

Christy expresses the inclusive relationship that developed within the group when she shares this:

We all had something to offer and share with each other that we didn’t all know. Everybody was really respectful when someone wanted to speak. Everybody listened and I don’t think fake listened like. You’d listen and you’d want to hear what everybody had to say, so in that regard the river is what brought us together because we all had something we knew about it and had to offer and share about it. (Christy, Interview 2, 434–439)

Social learning was not limited to interactions between program participants and facilitator. It also occurred through the numerous meetings and interactions that took place during the journey. Meredith shares her experiences from a couple of these interactions:

I guess that I understood that it is possible to really live your beliefs, and I saw that in an organic farmer we met. . . . it was in the Robson Valley and they were trying to go as local as possible, and, you know, right down to bees and seeds, and you know, they were working towards a zero-footprint farm. That was inspiring to see—people actually walking [the talk]—I think it broadened my understanding of who was an environmental activist as well. (Meredith, Interview 2, 411–416)
Christy shares a similar story:

It was kind of a learning experience on how much this trip is going to have an impact on our lives afterwards. You can’t describe the feelings that you’re going through or that you’re taking in or when you are meeting other people and learning from them. Like when we stopped in Lillooet and we stopped in a First Nations area, and everybody would talk to us about something different. I mean the learning was just never ending. (Christy, interview 1, 658–663)

The process of meeting people along the way was central to participants’ learning.

Meredith so aptly shares,

Yeah, and it was an education, too, and I realize that it’s important to actually get out and talk to people. I think this is true just as a person and as a reporter, to talk to real people instead of just figureheads or politicians or organizers. (Meredith, Interview 2, 455–458)

Reading of the Waters

Social learning appears to be prevalent in participants’ learning and meaning-making process. Wenger’s (2003) explanation of the process of social learning seems to resonate through the stories of participants in this study:

We have experiences that open our eyes to a new way of looking at the world. This experience does not fully fit in our current practices of our home communities. We now see limitations we were not aware of before. We come back to our peers, try to communicate our experience, attempt to explain what we have discovered, so they too can expand their horizon. (p.77)

According to Wenger (1998), a social theory of learning involves four components that are necessary for social participation in the process of learning and knowing: community, identity, meaning and practice. The four components represent learning as belonging, becoming, experience and action (Wenger, 1998). The stories from participants in this study capture the components of social learning Wenger (1998,2003)
has mentioned. What results from a theory of social learning is a community of practice. Wenger & Snyder (2001) defined a community of practice as a group of people bound together, whose passion and expertise for a topic energize the community towards a joint enterprise by providing intellectual and social leadership. At the center of this process is the sharing of information, knowledge and experience to come to a common understanding and course of action (Ettling & Guilian, 2004). Stories from the SLLP seem to resonate with changes within participants and a transformation in their ecological identities (Wenger, 2003). The stories the participants shared suggest social learning is at work and reveal the development of a community of practice within the SLLP.

The structure of the SLLP may be an example of design that captures social learning theory and perhaps generates a community of practice that holds the potential to endure beyond the completion of the program. The very nature of a three-week river trip that focuses on sustainable living practices and environmental leadership creates a focus around which a community can develop. The daily living practices involved in travelling down the Fraser River allow participants to be removed from their regular communities and creates a new environment and opportunity for group membership (Dalton, 1979). The three-week river journey framed as a rites of passage model (Turner, 1969; van Gennep, 1960), the common experience of viscerally perceiving nature and the river (Abram, 1996; Itin, 1999; Joplin, 1981; Kolb, 1984; Naess, 2008; Raffan, 1992, 1993; Thomashow, 2002) and the development of a close-knit group which encourages the exploration of ideas, challenging of assumptions and reflective dialogue (Itin, 1999; Joplin, 1981; Kolb, 1984; Lewin, 1997; Mezirow, 2000; Wenger, 1997) formed an arena ripe for transformation and the development of an individual’s ecological identity. It
seems that it was the subtle, yet complex layering and intertwining of the aforementioned experiences that allowed for the process of self-realization in the participants to occur—a deepening into place and oneself that allowed participants to recognize and empathize not only with other humans, but also the non-human world (Naess, 2008). This is a process which is intrapersonal, interpersonal and inter-ecological. The collective sum of these nuanced experiences created a community of learning that, at least in the minds of the participants in this study, may be supportive in sustaining ecological praxis (Takahashi, 2004; Thomashow, 2002; Wenger, 1998; Zavestoski, 2003).

**Theme Three—Seas of Change**

The narratives in the section that follow are concerned with the personal, professional and social changes that resulted from participation in the SLLP. More specifically, the stories reflect intensification in ecological praxis, advocacy work and the conditions that support these occurrences. The section is divided into three subheadings: a) They’ve been kind of a support system and b) Definitely, I’m committed.

a) *They’ve been kind of a support system.*

The participants were able to form a network of support that helped accelerate and strengthen some of the advocacy initiatives they became involved with after the trip. The close proximity of group members to each other and the RSBC aided in creating this network of support. Wenger’s (1998) notion of communities of practice and Dalton’s (1979) observations on the importance of social relationships in sustaining change seem to support the efficacy inherent in developing community relationships to support action and lasting behaviour change. The participants told stories about the formation of a local community group:
William and I formed a tri-cities green council, a watchdog group on our local council to make sure that they’re not making all these decisions and disregarding the environment…we definitely share the same concerns about our environment and that’s what this group is about. (Christy, Interview 1, 506–509)

Similar interests and involvement at a local level has meant the participants communicate often. As William relates,

We [Christy] started groups together so we are in email contact almost on a daily basis, if not two dozen times in a day. I mean with others it depends, Meredith is a writer for a [newspaper], and a lot of what I do is in activism is trying to get it out to the news. That’s been one aspect of our relationship and also we just hit it off really well. We have a lot of similar interests. (William, Interview 1, 890–894)

William goes on to explain how the involvement in the network seemed to expand:

We started the Tri-City Green Council. We got this kind of essentially one group starting a whole bunch of other groups and working together on all these different things. That’s kind of a huge team that kind of forged out of that. (William, Interview 2, 511–513)

Involvement in a local community group that deals with local issues led to increased relationships with Fin and the RSBC: “As far as Fin, he’s our councillor and we’re dealing with civic politics on a weekly basis, so we see him quite frequently” (William, Interview 2, 517–518).

Fin’s role as a mentor and community leader who is readily available to past program participants may be one of the key factors contributing to sustained ecological praxis (Kempton & Holland, 2003; Thomashow, 2002). The RSBC has actively tried to engage program alumni in community and RSBC initiatives. Christy has become involved and explains,

Fin has been, he’s been great because he’s not overbearingly “okay you can get involved with this, can you help me with that”; if anything I kind
of felt, you know, “don’t be shy, ask if you need help with something.” I do care about this and I just I know how much time and effort and money that was put into this program. (Christy, Interview 1, 488–491)

Meredith explains how the program and the network that arose out of it were important in her work for environmental change:

I think the people on the trip proved to be just as inspirational as the scenery and the nature and the cool things we saw. I mean they just made the trip that much more fulfilling for me and you know they’ve been kind of a support system since the trip. So maybe I would have forgotten about it or maybe it wouldn’t have influenced me as much if I afterwards if I hadn’t been in touch with those people. (Meredith, Interview 2, 233–238)

Reading of the Waters

All the participants’ stories suggest that group or social learning was an important feature of the SLLP. Stories retold by participants a year after participation in the program may indicate that the extension of those relationships became an important factor in maintaining and supporting environmental activities once individuals returned to their home communities (Takahashi, 2004). These findings appear to be supported by research on ecological identity and environmental action. Zavestoski (2003) has proposed that our identities are made meaningful by the reaction other social actors have to our behaviour. The social relationships that are supportive of a person’s ecological identity play an important role in sustaining ecological or environmental behaviour. Zavestoski’s proposition seems in line with Dalton’s (1979) notion that the process of group formation and identification may be an important element in internalizing the owning of personal changes by placing them in a larger social construct. Participants’ stories seem to resonate with both of these authors’ premises and fit well with Wenger’s notion of belonging, becoming and action that are key to communities of practice.
Forming a group identity around the SLLP that involves a community or network that can extend beyond program completion appears to be vital in participants’ sustaining ecological praxis upon their return home. As Samuelson, Peterson and Putman (2003) have suggested, “group identity may be an important mediator between knowledge and action” (p. 273). Zavestoski expanded on this notion, suggesting that environmentalists often depend on the development of communities of support since individuals “depend on the responses of social others to validate the actions guided by our ecological identities” (p. 301). Kempton and Hollands’ (2003) research also suggested the importance of community: “The development of an environmental identity and a sustained environmental practice involves moving past inertia, often bit by bit, with the help of others” (p. 336). These findings support research conducted on rites of passage and organizational change (Bell, 2003; Cushing, 1989; Dalton, 1979). All of the participants’ stories seem to echo these authors’ comments and suggest the importance of the continuation of a community of practice beyond the program’s completion. The findings in this study are unique to the lived experiences of the program participants. However, environmental education practitioners may want to give pause to consider this study’s results and contemplate how they may be relevant to other programs.

b) Definitely I’m committed.

Participants expressed intensification in their efforts as environmentalists upon their return home. While all of the participants were passionate, active environmentalists prior to participation in the SLLP, they all expressed stories involving both personal and professional ecological praxis. Christy reflects on her participation in the program,
When I came out of this I felt like a bit of a different person. I felt very happy and I felt very smart, and I felt like I had a really accomplished something on my own even though it was a group effort. It takes a lot of individual work and patience and thinking and everything and physical work, too, and I did it, and I now want to contribute, and I know what makes you happy is making things better for the underdog. (Christy, Interview 2, 622–627)

Meredith comments how the program brought into focus her personal and professional goal that led her to apply for a fellowship at the Oceanographic Institute:

It made me think about where I was in my own career and where I wanted to go with that. It made me—I reflected on what was important to me and realized that spending time outdoors is really important to me, and I think important to my well being. (Meredith, Interview 2, 453–455)

Personal reflection and changes also lead to environmental action. One mechanism the program used to encourage this process was developing “Rivershed Resolutions” while on the Fraser River, resolutions that could be used as touchstones for environmental action upon participants’ returning home. Resolutions from participants ranged from getting more involved in community groups, to raising awareness through writing and events to more personal things like using less water or planting a community garden. William explains how he has spent his time since graduating from the program:

For me it comes down to just trying to do everything that you can raising awareness, working with or trying to work with politicians, doing community outreach and just learning as much as you can. Just essentially trying to do what you can to preserve what there is and make sure that if things have to change, and things will change, that it is done taking everything into account not just money or desires of a few people or something like that. Really just looking at all aspects and doing things the best way possible. Basically, just working for conservation sustainability is what it really boils down to and that’s pretty much been what I’ve dedicated my last eight months to. (William, Interview 2, 357–365)
William had already been active in his local community and his resolution was to continue and increase those efforts. He shares his thoughts on his resolution:

I’m involved, and I’m always doing more and working with more groups and new people and since that [SLLP], like wow. I’ve got four years worth of activism in the last four months. So yeah, anyways, I’ve blown it [Rivershed Resolution] out of the water, I guess is a pretty good way to describe it. (William, Interview 2, 472-475)

Meredith was a reporter for an on-line newspaper and was commissioned to write a four-part series on her trip. She combined her work together into her resolution. While Meredith downplayed the importance of the process of writing a Rivershed Resolution she still composed hers, and it led to other environmental writing:

I wrote a four-part series on the trip and then I wrote a couple of articles, not directly related to the trip. I mean they just tend to snowball—you, people I’d interviewed for the trip keyed me off to other stories. I wrote about fish hatcheries and First Nations fisheries. (Meredith, Interview 2, 290–293)

She goes on to explain how her journalistic style changed as a result of the SLLP and led to increased involvement on environmental issues, when she shares,

I think it peaked my interested in salmon a little more and I’ve followed up with more articles on salmon hatcheries and First Nations fisheries. I volunteer for the Rivershed Society on a research committee, so I volunteer for them. We haven’t had a lot of meetings but I decided I wanted to become more of an advocate and so I thought by doing research for the Rivershed Society, I could help further this cause I believe in. I think it changed me (Meredith, Interview 1, 724–729)

For Christy, the resolution played a more important role—it was a contract of commitment. She pledged to be more involved in the community and to educate people on the importance of riversheds: “I’ve made a commitment to be more involved in my community and I’ve had a positive affect and have had really positive comments about
some of the work I’ve been doing” (Christy, Interview 2, 451–453). “I have a pretty important role to play; I’m definitely becoming more and more confident in it every day knowing that . . . I’m trying to do everything I can in the limited time I have. Definitely I’m committed” (Christy, Interview 2, 455–457). One of the projects she has taken on since her graduation is to put together a fundraiser for the SSLP, and she shares her motivation:

I’m so excited that I have a project like this sustainable living leadership program fundraiser dinner to take on. As important as the funds are, I wouldn’t be as interested if it was solely a fundraiser, it’s just a great opportunity to host an event that’s going to teach people about the values we learned in the program and that that I wish everybody had those values. So it’s a good opportunity to share those values and educate people about them. It’s just such a good opportunity to talk to people and educate them about the program . . . there’s a good opportunity to really share what our experience with other people [was]. (Christy, Interview 2, 645–652)

Reading of the Waters

The participants’ stories reflect a renewed or reinvigorated commitment to environmental action. For the participants in this study, close personal relationships and the development of a community of practice (as outlined in the Reading of the Waters section of the previous subsections We all had something to offer and They’ve been kind of a support system) played an important role in motivating and encouraging personal and professional ecological praxis. Outdoor and environmental educators might think about re-conceptualizing fundamental assumptions about individual and social development and how the two can be mutually reinforce the journey toward environmental action. This research suggests that the bonds from these relationships can assist in the transfer of thought to action (in this case ecological) when they are nested and nurtured within the participants’ social and natural community.
Participants’ narratives revealed premeditated plans for environmental action upon completion of the SLLP. As Mezirow suggested, “Action is an integral and indispensable component of transformative learning” (1991, p. 209). By design, the final week of the SLLP river journey is spent developing Rivershed Resolutions. The resolutions serve to focus participants’ general environmental concerns toward an action that is specific and localized (Dalton, 1979). William, Meredith and Christy all told stories of their post SLLP environmental action that reflected having clear, challenging goals into which they invested their energy (Csikszentmihalyi, 1990, 1997). Their stories all reveal passionate commitment to and personal ownership of environmental projects or causes (Hungerfold & Volk, 1990). All of these factors contribute to supporting and sustaining transformative change (Dalton, 1979).

The efficacy of the Rivershed Resolution as a source for ecological praxis varied between participants. It may be useful to view the resolutions as symbols that represent participants’ commitments to future environmental work and view them within the larger context of the SLLP program. They represent what Brown (2004) called “Activists’ Action Plans” that serve to guide and focus social action and when followed step-by-step lead to lasting and sustained behavioural change (Dalton, 1979; Hungerford & Volk, 1990). Whether the Rivershed Resolution was the direct source of these action plans is unclear. However, all three participants’ narratives conveyed clear plans that revealed changes in their personal and professional life and an increase in ecological praxis. The Resolutions may be seen as just one of many possible bridges that allow individuals to express their personal ecosophies through action in their everyday lives (Simpson, 1996). The opportunity to act and be empowered appears to be essential part of the learning
process for all of the participants (Daloz, 2000; Hungerford & Volk, 1990). Praxis or reflective action in the postliminal stage of the SLLP represents but one endpoint in the transformational learning journey (Dalton, 1979; Freire, 1970; Mezirow, 2000; Turner, 1969). It is the culmination of a complex and nuanced phenomenon that includes each participant’s lived experiences, social interaction and deep personal reflection. In a sense the eight months following the program and the actions taken by participants may be seen as a conclusion to the SLLP process, yet at the same time they may mark a beginning for a new process of change and identity making as participants become leaders in their home communities.
Chapter Four: Conclusion

This dissertation has explored the lived experiences of past SLLP graduates through the participants’ stories. From these stories this study sought to investigate the participants’ learning journeys from environmental knowledge to ecological praxis, and to ascertain if participation in the program was transformational.

The findings of this research suggest that participants did undergo a process of transformation through participation. As mentioned in *Theme One—The Headwaters of Environmentalism*, all of the participants in this study were passionately engaged in environmental or advocacy work prior to participation in the program. Their early childhood experiences in nature provided the catch basin and rivulets from which the currents of their environmental interests grew. As a result, the process of transformation is much more subtle and difficult to ascertain. The findings from this study suggest that the SLLP is not creating environmentalists but instead, as intended, is creating environmental leaders. This subtle yet profound distinction makes the process of transformation initially less obvious.

All the participants’ stories of their learning journey seem to fit the models and frame works for transformational learning. Both Lewin’s (1997) three-step model and van Gennep’s (1960) rites of passage model nicely fit and explain the efficacy of the SLLP as an expedition-style wilderness education program for these participants. Mezirow’s (1990, 1991a, 2000) three-step process of transformative learning and his expanded 10-stage framework (2000) can also be found reflected in participants’ stories. Yet, these lenses for viewing transformation fail to capture the complex, nuanced interweaving and layering of experiences that actually contribute to the change process. If we use these
lenses to view transformation as the move from general environmental concern to a more specific and localized goal of Fraser River-focused praxis, then indeed the program is transformational. However, the process of transformation towards long-term ecological praxis may be better understood as a continuum. The more nuanced and possibly profound form of transformation that arises out of participants’ narrative is the process of self-realization (Naess, 2008). Participants’ stories resound with a rising awareness of interconnectivity and a growing ecological consciousness and identity from childhood through to adulthood. A concrete endpoint for declaring self-realization is difficult, if not impossible, to assert in this study as the process of realization is highly personal and perhaps elusive. However, participants’ narratives each suggest that they are all caught up in the currents carrying them towards deeper and deeper forms of self-realization. This may be an area rich for further inquiry.

This study also sought to identify the key features of the learning experience that influenced participants’ attitudes and behaviours toward the environment. What arose from the participants’ stories was a rich description of a multifarious learning experience. It is the collective sum of the river environment—daily living practices and social interactions framed within the context of the program’s intent and purpose, that, when combined, suggest a powerful model for environmental learning. From the second major theme, The River Runs Through Us, three broad pedagogical features for transformative environmental education arose from participants’ narratives.

In the subtheme The river was our teacher, the participants’ stories spoke of how the daily living practices of being on and travelling the river from source to sea affected their sense of interconnectivity to people, the landscape and the wider biological
community. The findings from this study suggest that the uniqueness inherent in the river environment may provide a setting that is not just novel, but that holds potential pedagogical significance for teaching environmental education within this program. As Cuthbertson et al. (1997) suggest, movement, in this case on the river, may be a catalyst or contributor to the process of self-realization (Naess, 2008). The Fraser River provides a unique setting for teaching environmental education; the river’s natural course takes it from the remote wilderness of the Canadian Rockies to the bustling industrial hub of British Columbia and the Pacific Ocean. The uniqueness of this journey assists in illustrating interconnectivity and fostering the process of self-realization by gradually letting the lessons learned in the headwaters to be assimilated and accommodated as participants journey back to modernity. The journey itself gives participants ample reflective time to devise a personal plan of transferring thought into action once off the river (Brown, 2004; Dalton, 1979; Hungerford & Volk, 1990; Itin, 1999; Joplin, 1981; Kolb, 1984; Lewin, 1997; Mezirow, 2000; Turner, 1969; van Gennep, 1960).

In the subtheme *We all had something to offer and share*, participants’ narratives suggested two important roles social interaction played in their environmental learning, a group identity and a community of practice. This finding seems to indicate that learning and meaning making goes beyond the individual and is indeed socially constructed (Fosnot, 1989). Participants’ relationships suggest a group identity that appears supportive and reinforces an individual’s personal ecological identity (Zavestoski, 2003). Wenger’s (1998) notion of a community of practice seems to resonate throughout participants’ narratives. The program needs to consider the interaction of these two important ways that participants make sense of, or live, the river program.
In the final subtheme *I felt I was part of something bigger than myself*, participants’ stories convey transcendental experiences of the sublime. Participants’ narratives suggest that their experience emerged from being in and surrounded by nature and the river environment. All of their stories were imbued with a sense of wonder (Baker, 2005; Carson, 1984; Chawla, 1999, 2006; Thomashow, 2002). Upon reflection, their stories indicate that these numinous experiences informed participants’ identity with the wider biotic community and perhaps the cosmos (Berry, 1999; Naess, 2008; Thomashow, 1995). These sublime experiences may be powerful moments in the path towards self-realization (Naess, 2008). While it may be futile to try to program experiences in the realm of the sublime, perhaps putting aside time and space to promote and encourage a sense of wonder could aid in facilitating such experiences. Thoughtful facilitation that focuses attention to the natural world and encourages empathetic perspective taking to the wider biotic community may also assist in this process. Finally, incorporating ritual (Turner, 1969) and prolonged moments of solitude (Kull, 2008) might be pedagogical practices that could aid in fostering a sense of wonder and, potentially, make glimpses of the sublime experience possible.

The final area of inquiry this study explored was the way in which environmental praxis manifested in the lifeworlds of participants. Narratives from the individuals who contributed to this study expressed new and sometimes renewed efforts in environmental leadership or ecological praxis in their home communities upon completion of the SLLP. *Theme Three—Sea of Change* surfaced from participants’ stories and encapsulated the environmental action and changes participants enacted after the program’s completion. The plausible pedagogical insights that presented themselves within this thematic cluster
are found in the subthemes *They’ve been kind of a support system* and *Definitely, I’m committed.*

Participants’ stories in *They’ve been kind of a support system* highlighted the importance of community and peer support in creating, sustaining and maintaining environmental initiatives and changes after completing the SLLP (Bell, 2003; Cushing, 1998; Dalton, 1979; Zavestoski, 2003). Wenger’s (1989) model of communities of practice seemed to resound in participants’ stories. The close geographical nature of participants to each other and the RSBC may have been a contributing factor to the success and formation of this group’s community of ecological praxis. All of the participants mentioned regular interactions with Fin Donnelly and each other in their efforts to carry out new or renewed environmental activity. The program may want to give consideration to how post-liminal communities of practice could be further strengthened. For program participants outside the Vancouver Lower Mainland, developing online networks that provide a forum for alumni, RSBC members and staff to communicate may be one way to overcome geographic hurdles (Godin, 2008). Once-a-year forums or regional alumni groups could also be created and arranged to strengthen social relationships and networks for SLLP graduates. Some consideration may also be given to developing a mentorship program that includes all the program facilitators and active alumni. To sustain long-term ecological praxis, personal transformation and the development of an individual’s ecological identity, developing mechanisms that support communities of practice in the postliminal stage of a program may greatly assist the SLLP’s efficacy.
The narratives in *Definitely, I’m committed* are filled with expressions of will and intent towards ecological praxis. The SLLP employs Rivershed Resolutions in the last week of the program on the river where the focus is to develop a plan for the return of participants to their home communities. However, the efficacy of the resolution to result in ecological praxis occurs in the postliminal stage of the program or after it is complete. All the participants in this study told stories that referred to their resolution or, at least, were following plans that had been outlined while on the river, plans that provided clear goals, steps to follow to achieve the goals and involved personal commitment and ownership to the success or completion of goals (Csikszentmihalyi, 1997; Dalton, 1979; Daloz, 2000; Hungerford & Volk, 1990). Participants’ Rivershed Resolutions represent a vehicle through which environmental thought and knowledge can be moved into action. Although crafting action plans takes place on the river, the execution of the plans as clearly illustrated within the scope of this study takes place after the program’s completion. While developing a community of practice to support such effort seems imperative in sustaining efforts of ecological praxis, the RSBC may want to consider other mechanisms to foster and maintain alumni projects. A standing bursary, access to RSBC’s provincial networks of expertise and regular scheduled resolution check-ins and coaching might all assist in sustaining program graduates’ environmental efforts and actions.

As previously discussed in Chapter Three: Methodology, phenomenology cannot express any law-like statements or generalizations of a study’s findings. While the solutions and conclusions reached in this study provide insight into a host of pedagogical considerations for transformative wilderness-based environmental education, these
insights are specific to the phenomenon of this research and do not provide absolute solutions. Rather, this study’s utility and usefulness lies with the reader and his or her ability to relate the findings to personal pedagogical practices or programs. The themes, subthemes and conclusions drawn in this study may be combined and considered as a guide for others, to be used when placed within the reader’s unique context. Even so, in summary, it seems reasonable to offer five points of consideration for those in the broader environmental and outdoor education community who are interested in wilderness-based programs that foster transformative change that leads to ecological praxis:

- The findings in this study suggest that the river environment as a place and means of travelling through the landscape supports and enhances participants’ understanding of interconnectivity to the human and non-human world. There is room for further development of such river-based environmental programs in British Columbia and throughout Canada.
- The role and importance of both personal and social development in outdoor education may need to be re-conceptualized to consider how personal ecological identity, group identity and community interact and support ecological action. A greater focus can be placed on the social leaning as a catalyst for developing and maintaining ecological praxis.
- Providing time and space to experience the wonder of nature is important in fostering sublime or numinous experiences. Numinous experiences, in turn, assist in the process of self-realization. Perhaps the process of self-realization could be viewed as a continuum of experiences that spans childhood to adulthood and as such programmatic time could be set aside for participants to recognize and
explore their personal process. Reflective opportunities of this kind would allow individuals to investigate and establish their ecological identities.

- Developing a community of practice that continues after a program’s completion will greatly assist graduates in sustaining and maintaining efforts. Fin’s position in the post-liminal SLLP process suggests that program facilitators have an important role as coaches and mentors in sustaining ecological praxis.
- Development of a personal action plan that clearly outlines a participant’s will, intent and a specific ecological outcome is imperative in supporting behaviour change. It may be worth reconsidering the process of ecological action as a cycle of critical awareness and as such it may be strengthened when supported and monitored in the postliminal phase of a program.

**Recommendations for Further Studies**

The research of wilderness-based environmental programs that foster transformative change and ecological praxis is sorely lacking. Further empirical research is needed to ascertain the efficacy of wilderness and river environments as a setting with pedagogical implications for teaching environmental education. There is considerable rhetoric around the wilderness as a positive setting for environmental education (Cuthbertson et al., 1997; Gillet et al., 1991; Hanna, 1995; Kellter, 1998; Miles, 1987; Naess, 2008; Thomashow, 1995). While this study supports that proposition, additional research in this area could assist in the development of a wilderness- or river-based pedagogical framework.

Additionally, further research needs to be conducted on understanding the process of self-realization as transformation and how this process affects ecological praxis. The
primary outcome of Naess’s (2008) proposition of self-realization is that people “act beautifully” (p. 82). Understanding how to interpret and apply this concept holds great promise for those interested in transformation toward ecological praxis. Informal outdoor experiences and experiences in nature have ranked first as an influence on environmental attitudes and behaviour in many studies on significant life experience (Chawla, 1998; Chawla, 1999; Palmer et al., 1999). If such experiences have formative power in childhood, is it not plausible that they have similar power in adulthood? As our understanding of formative experiences expands in the field of environmental education, wilderness, or nature-based programs like the SLLP, may play an important out-of-school role in developing committed environmentalists. Grounding these programs in a specific place or region assists not only in foraging a connection to a specific local but also encourages local political and environmental action. Further research is needed to determine if the experiences so formative in childhood can be reproduced and extended in adulthood with the same results. A study with this focus might provide a programmatic template or framework for those interested in lasting environmental behaviour and action.

Finally, there is a need to continue refining methodological practices in the field of environmental education. In Chapter Three: Methodology, I outlined the considerations and procedures of phenomenology and its promise in uncovering the subjective nature of individuals’ lived experiences. The use and adaptation of Siedman’s (1998) in-depth phenomenological interview technique was essential in developing a rapport with my research participants that allowed the data gathering process to take on the tone and feel of a good conversation. Developing rapport and relationships through a series of interviews was paramount to the research process and allowed the researcher and
participants to find our comfort levels within the inquiry. A further strengthening of this study’s findings could be accomplished by combining phenomenological methods with field research on the river observing participants’ behavioural change. Future environmental education researchers might consider research approaches that encourage multiple interactions with subjects over the course of the study. In capturing the essence of the subjective nature of the lived experience of participants, utilizing a series of interviews allowed both the researcher and the participant to reflect and make meaning of the questions and responses between meetings. This process allowed space for new insights to develop, and in this sense, the research became a recursive learning experience for all involved.
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Appendix A

Interview Guides

Interview One-Part One: Focused Life History

This recording is an interview with (Insert Name ) conducted on (Insert Date ) at (Insert Location ).

Thank you for participating in this study, and agreeing to be part of the interview group. Please introduce yourself, and state the year that you participated in the SLLP.

1. Reconstruct one of your earliest childhood memories when you feel like you made a connection with the natural world.
   
   Prompts:
   - Who was involved in sparking your interest and what was your relationship?
   - Can you recall your feelings thoughts surrounding the experience?
   - What do they mean?
   - Can you recall another experience?

2. Can you describe the place you mentioned in the last question in detail?
   
   Prompts:
   - What was special about this place?
   - How often did you go there?
   - Who typically joined you there, if anyone?
   - Have you ever returned to this place? Why/why not?

3. Do you recall any other significant influences (books, events, people) from your childhood?
   
   Prompts:
   - Can you describe them in detail?
   - Do you recall your feelings around these events?
   - Why are these significant?
4. How did you become interested / concerned in the environment?

Prompts:
- What was the experience like?
- Can you describe your thought or feelings regarding this experience?
- Did you share this concern with anyone? If so describe your relationship with them.
- Describe the feelings surrounding this experience.
- How did you follow up on your interests and concerns?

5. How did education play a role in your interest and concern with nature?

Prompts:
- Can you describe a certain experience from school?
- What was significant about that experience?
- Who did you share it with?

6. How did you come to participate in the SLLP?

Prompts:
- How did you first hear about the SLLP?
- Why did you decide to become involved?
- Can you tell me how you felt about the SLLP experience in the time leading up to it?
- Describe your decision making process to participate in the program.
- What personal feelings come to mind?

10–15 Minute Break

Interview One-Part Two: The Details of the Experience

This recording is an interview with (Insert Name ) conducted on (Insert Date ) at (Insert Location ).

1. How well do you remember the SLLP?

Prompts:
- Do you ever think about your experiences of the river? If you do, what feelings / responses does this evoke?
2. How did you feel at the beginning of the trip?
   Prompts:
   - What prompted those feelings?
   - How did you deal with those feelings?
   - Can you describe the first day?

3. Reconstruct a typical day during the SLLP.
   Prompts:
   - Let’s explore some of those “typical” experiences (sleeping under a tarp, cooking on a fire, floating on the river, etc.)
   - Did you feel yourself changing in any way during the experience (feelings, attitudes, physical)?
   - Why do you think you remember this particular day?
   - How did you feel?

4. What were the most memorable experiences during the SLLP?
   Prompts:
   - Can you tell a story surrounding that event?
   - What personal feelings come to mind?
   - Do you ever think about these experiences? If so what thoughts or feelings arise?

5. Describe any memories of personal stories you either listened to, or read, or told to others while on the SLLP.
   Prompts:
   - Can you tell me that story again?
   - What do you think might be the significance of that story?
   - Why do you think you have remembered it so clearly?

6. Describe some of the key learning moments you experienced?
   Prompts:
   - How did your thinking/feeling change (or did it)?
   - Why were these moments significant?
7. Do you recall any instances during the SLLP when your understanding of things was challenged?
   
   **Prompts:**
   
   - Please recount the setting and the instance.
   - How was your understanding challenged?
   - How did you deal with the challenge?

8. During the SLLP did you experience any moments of self reflection?
   
   **Prompts:**
   
   - Can you describe what the process revolved around?
   - How often did you undertake this process?
   - Did you share these reflections with anyone? If so who?

9. During the SLLP you drafted a Rivershed Resolution? (i.e., the action you committed to at the end of the SLLP). Describe your resolution.
   
   **Prompts:**
   
   - Why was this significant?
   - Did you initiate your resolution when you returned home? Why/why not?
   - What other changes resulted from your resolution?
   - Were they successful? Why/Why not?
   - How do you feel about this?

10. How did travelling the length of the Fraser affect you?
    
    **Prompts:**
    
    - What was the role of nature in typical day?
    - Do you recall any particular places on the river?
    - Why are these places significant?
    - How has your relationship with the Fraser/nature changed?

11. How did you interact with the other participants/facilitators?
    
    **Prompts:**
    
    - Describe those relationships
    - How cohesive was the group?
    - How did you communicate?
12. How did you feel at the end?

Prompts:
- *Describe your return home.*
- *What was the most challenging aspect of returning?*
- *Can you explain in more detail?*
- *Why do you think this is significant?*

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**Interview Three: Reflecting on the Meaning**

This recording is an interview with (Insert Name ) conducted on (Insert Date ) at (Insert Location ).

Thank you for participating in this study, and agreeing to be part of the interview group. Please introduce yourself, and state the year that you participated in the SLLP.

1. In our last talk you mentioned a couple special places from your childhood. How do you think these places and the experiences you had there influence your environmental values?

Prompts:
- *How are these places significant?*
- *What feelings arise when you think back about these places?*
- *Describe your thought and feeling when you were playing in the wood.*
- *How do they shape who you are today?*

2. In our last talk you mentioned a couple people who played an integral role in getting you outside as a youngster. How did these people shape your appreciation of the natural world?

Prompts:
- *How did these people influence your environmental values and beliefs?*
- *What lessons did they teach you? Or what lessons did you take away from your time spent together in nature?*

3. You spoke of a new or renewed relationship with the Fraser. How has your thinking and actions surrounding the Fraser changed?

Prompts:
- *How did the journey from the remote headwaters to bustling delta and the sea influence this relationship?*
- *How is the river trip significant in your understanding of the Fraser?*
- *What is the significance of your relationship?*
- *How do you feel about the river now?*
- *Can you tell a story that captures your relationship?*
4. Can you describe a time on the trip when you underwent or had a powerful connection with nature?
   Prompts:
   - What feelings do you recall?
   - How have you made meaning of this experience?
   - How has it influenced your thought and actions?

5. The social interactions between the group seemed to be an influential part of the trip. How did these interactions influence your experience?
   Prompts:
   - What was significant about these interactions?
   - How did they influence your understanding and learning?
   - How were these relationships different (or were they) from relationships back home?

6. All of you mentioned the powerful sense of belonging and the freedom “to be” on the river?
   Prompts:
   - How did these feelings arise?
   - What is the significance?
   - What did you learn from these experiences?

7. You spoke of your advocacy and social action work that arose from your Rivershed Resolution. How are the Rivershed Resolutions significant?
   Prompts:
   - How did they motivate you to accomplish the things?
   - What role did your alumni cohort play in your advocacy work since?
   - How is this significant?
   - What role did the facilitators play?
   - Did the SLLP empower/motivate you? If so how?
   - How did your approach to environmental issues change from the beginning to the end of the trip?
8. How did your relationships change with people as a result of participating in the SLLP?
   
   Prompts:
   - Describe any these relationships
   - Do you communicate with SLLP alumni and facilitators?

9. How do you understand the lessons or things you learned in the SLLP now?
   
   Prompts:
   - What significant changes (if any) resulted from your learning? (attitudes, behaviours, values)
   - How did the experience change your thinking?
   - How did the river influence you?
   - How did the participants influence you?
   - How did the facilitators influence you?
   - How did the guides influence you?
   - How were the binders significant?
   - How have you utilized those lessons in your life since?
   - Do you reflect on your learning experience?
   - What feelings arise?

10. When you reflect on your experience during the SLLP what thoughts and feelings come to mind?
    
    Prompts:
    - How was the experience special?
    - How would you describe the essence of the SLLP experience?
    - Can you tell a story that captures the essence?
    - How would you describe the experience to someone unfamiliar with the program?

11. How has the SLLP influenced you as an environmental advocate?
    
    Prompt:
    - What do you see yourself doing in the future?
    - Short Term?
    - Long Term?

12. You’ve been incredibly positive about the program, what if anything would you change?
    
    Prompt:
    - How and why?
    - Would you do it again? Why?
Appendix B

*Initial Recruiting Email*

Hello,

My name is Sharman Learie and I am a Masters’ student at Royal Roads University that is conducting research on transformative environmental education. I am currently looking for volunteers to participate in a research study on the Rivershed Society of British Columbia’s Sustainable Living and Leadership Program. Your name was provided by Fin Donnelly as a possible candidate for my research. This letter is to formally invite you to participate in a research study and to explain the purpose of my research.

The purpose of my research study is investigate the phenomenon of learning and personal change in past program participants of the Rivershed Society of British Columbia’s Sustainable Living and Leadership Program. Specifically, the research will explore key features of the learning experience that are instrumental in influencing participants’ beliefs and attitudes towards the environment. The study will also investigate if and how these changes in values led to a shift in ecological praxis among participants and how such changes may have been applied in their home communities. The study you are participating in will add to the growing body of knowledge surrounding how individuals learn, teaching practices and transferring knowledge into environmental action.

As a volunteer in this research project you will be asked to participate in a series of two interviews. Rather than formal interviews you should view these meetings as an
opportunity to join me in an on-going dialogue of your experience in the SLLP program. The length of each interview can be expected to be one to one and a half hours in length. The interviews will be recorded and I will take notes during our sessions. In addition to the interviews you can expect an additional series of email and telephone correspondence with me in which I will ask you to review, and verify the accuracy the transcription from the interviewing process.

You are not compelled to participate in this research project. You are not obligated to answer any question you are uncomfortable with, free to terminate any interview at any time and free to withdraw from the experiment at any time without prejudice. To compensate you for your participation, I am offering a $75.00 honorarium. The honorarium will be issued as soon as you arrive at the first interview. Participating in the interview is not a requirement to receive the honorarium.

If you are interested in participating in my research experiment please contact me at 250-374-8607 or by email at slearie@tru.ca. I will be able to answer any additional questions you may have at that time. My credentials with Royal Roads University can be established by calling Dr. Richard Kool, School of Environment and Sustainability at (250) 391-2523 or by email at Rick.Kool@RoyalRoads.ca. I hope you will consider participating in my research and I look forward to hearing from you.

Sincerely

Sharman Learie
Appendix C

Research Consent Form

Hello,

My name is Sharman Learie and this research project is part of the requirement for a Masters’ Degree at Royal Roads University. To verify the authenticity of my research please feel free to contact Dr. Richard Kool, Associate Professor and Program Head-MA Environmental Education and Communication at (250) 391-2523 or by email at Rick.Kool@RoyalRoads.ca.

This document constitutes an agreement to participate in my research project titled: Changing Lives, Creating Leaders: Transformational Environmental Education. The purpose of my research study is investigate the phenomenon of learning and personal change in past program participants of the Rivershed Society of British Columbia’s Sustainable Living and Leadership Program. Specifically, the research will explore key features of the learning experience that are instrumental in influencing participants’ beliefs and attitudes towards the environment. The study will also investigate if and how these changes in values led to a shift in ecological praxis among participants and how such changes may have been applied in their home communities. The study you are participating in will add to the growing body of knowledge surrounding how individuals learn, teaching practices and transferring knowledge into environmental action.

As a volunteer in this research project you will be asked to participate in a series of two interviews. Rather then formal interviews you should view these meetings as an opportunity to join me in an on-going dialogue of your experience in the SLLP program. The length of each interview can be expected to be one to one and a half hours in length.
The interviews will be recorded and I will take notes during our sessions. In addition to the interviews you can expect an additional series of email and telephone correspondence with me in which I will ask you to review, and verify the accuracy the transcription from the interviewing process.

The data collected (voice recordings, notes and transcripts) will be consolidated and compiled and presented in my final report. I will use code names to protect the anonymity of all participants, and all documentation will be kept strictly confidential. Names and identifying information will be erased from all recordings and documents. Archived copies of the data will be stored on computer in a security encrypted file and hard copies of the data and video tapes in a secure facility for 25 years. After 25 years all data and tapes will be destroyed. Access to the data will be restricted to myself, my supervisor and the program head during this time. A copy of the final report will be housed at Royal Roads University and will be publicly accessible. None of the research findings will be used for commercial purposes.

You are not compelled to participate in this research project. It is possible that some of the questions and self reflection may cause participants psychological or emotional disequilibrium or stress. You have the right to refuse to answer any question or terminate any interview at your discretion. You are free to withdraw from the research study at any time without prejudice. If this is the case all transcripts, notes and recordings will be immediately destroyed. Additionally, you will be given opportunity to express you interests by modifying, removing, editing any comments that cause you any discomfort. To compensate you for your participation, I am offering a $75.00 honorarium. The honorarium will be issued as soon as you arrive at the first interview. Participating in the
interviews is not a requirement to receive the honorarium. The potential personal benefits from participating in the research study include the opportunity for you to reflect and learn from your participation in the SLLP. Your opinions and feedback may be used to make program improvements in the SLLP and raise interesting insights that may be useful in other environmental education programs.

Questions are encouraged. If you have any questions about the research study please feel free to contact me at (250) 374-8607 or by email at slearie@tru.ca. By signing this letter, you give free and informed consent to participate in this project and give the person you have signed proxy designation to the authority to grant your consent in the research project.

Name (please print): ____________________________________________________

Signed: ______________________________________________________________

Date: __________________________________________________________________

Age: _________

Researchers Signature: ________________________________________________

Date: __________________________________________________________________