SUSTAINABILITY EDUCATION: THE EDUCATIONAL THOUGHTS, PRACTICES, AND INFLUENCES OF ECOFORESTER MERVE WILKINSON

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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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Sept 30, 2009

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Abstract

The focus of this research is the life story of Merve Wilkinson whose practice as ecoforester and educator sustains and promotes ecological knowledge and responsibility. Using the method of narrative inquiry I explore Wilkinson’s meanings, self-understandings, influences, actions and values as he reflected on the development of his sustainability philosophy, his practice of sustainability education, and his vision of education for the future. This research documents his education philosophy that shows insight into the meanings, structures and essences of sustainability education. Four key areas of reform in education emerged: early childhood personal experience with nature to nurture the sense of wonder, caring for nature, and connection with the natural world; adults/teachers share with their students their knowledge, feelings, and actions that demonstrate responsible environmental behaviours; the wisdom of historical knowledge and practical skills is honoured; a long-range vision is developed that integrates environmental values with a tradition of democratic participation.
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Acknowledgements

There are too many people to name who have helped me along in my thesis journey. However, I wish to briefly make a special note of those whose guidance or encouragement have made a huge difference. First, I wish to thank my thesis supervisor, Dr. Bonnie Shapiro, for her unwavering confidence in my abilities and for challenging me to see and think more deeply. I always looked forward to Dr. Shapiro’s feedback because it was not only full of insight, but contained excellent suggestions, and a generous amount of encouragement. Thank you so much. Dr. Rick Kool was also instrumental in guiding me up the ‘thesis mountain’. His enthusiasm was infectious, and his keen eye as an editor has made my thesis so much better. Thank you Dr. Kool. Second, I wish to thank my family and friends who took the time to call me regularly or set aside time to support me when I experienced both rough patches during the writing stages of the thesis and the exhilaration of completion of thesis chapters. Thank you to my parents, Harold and Lola Serebrin, my brother Wayne Serebrin whose thoughtful advice I took to heart, my cousin Linda MacKay whose good cheer always spurred me on, my friend Christine Fish who energized me, colleagues Derek Degear and Jay Rostogi for their insights on sustainability education in their education practices, and my friend Marilyn Funk whose sense of fun and her ability to get to the core of an idea taught me how to forget my perceived troubles and focus on the essence of the narrative. A heartfelt thank you to you all. Third, I wish to express my sincere gratitude to Merve Wilkinson whose generosity of time and indomitable spirit made possible this research and thesis. Thank you Merve for being you.
Chapter One: Introduction

Background

In, *Earth in Mind: On Education, Environment, and the Human Prospect*, David Orr (2004) suggests that life on planet Earth is continuing to decline as he states, “A decade ago I opened this book with a description of losses incurred in a typical day” and to some extent “the numbers are somewhat worse” now. He suggests that the problem “is a failure to educate people to think broadly, to perceive systems and patterns, and to live as whole persons.” (p. 2)

Education philosopher Huey-Li Li echoes this view by stating, “In the view of irreversible capitalist globalization and worsening ecological problems, existing formal educational systems seem to fail to transform the rhetoric of sustainable development and environmental justice into actions” (2006, p. 2465).

Another example of a worsening environment is that “global climate change”, otherwise known as “rapid global warming of anthropocentric origins”, is unequivocally occurring. The Intergovernmental Panel On Climate Change (IPCC) (2007) publicly announced that global climate change is primarily attributed to human activities that involve fossil fuel use, land-use changes, and agricultural procedures. According to the United Nations Framework Convention on Climate Change (UNFCCC, 2008) in the report on national greenhouse gas inventory data for the period 1990-2006, Canada showed the third largest percentage increase (54.8%) in greenhouse gas emissions when land use, land use change, and forestry were included. Could it be that, instead of stimulating a sense of interdependence between humans and the natural environment, and teaching students how to act in environmentally responsible ways, our education systems have contributed largely to creating the opposite effect? In, *Last Child in the Woods: Saving Our Children From Nature-Deficit Disorder*, Louv (2005) raises awareness to
what he sees as the disturbing trend of separation of children from the natural world. He claims that, “urban children, and many suburban children, have long been isolated from the natural world because of a lack of neighbourhood parks, or lack of opportunity.” (p. 64) Louv points out that in the late 1990s test-based education reform had little interest in sensory, hands-on experience in nature. Instead it moved considerably away from a “well-rounded education” (p. 135) to one that valued consumerism. Without a primary experience with nature Louv suggests that children will not develop a joy and wonder of nature. If these opportunities are not available at school or in their neighbourhoods children will likely not grow up to “feel any long term commitment to the place” nor want to “struggle to save what is left of our natural heritage.” (p. 158)

It is interesting to note that forty years earlier, Rachel Carson emphasized the same need for children and their parent(s) to understand their place within the ‘web of life’, not only in terms of knowledge but, more importantly, with feelings of passion for the ‘wonders’ of the natural world (Carson, 1965). Motivated by the DDT crisis of the 1950s Rachel Carson endeavoured to bridge the gap in public understanding of the relationships between the use of pesticides and their effect on the natural world in her book, *Silent Spring* (2002). Parallels may be drawn between the pesticide issue of the 1950s and present day global climate change. In both cases society seemed to lack understanding of the connection or relationships between human actions and their effects on natural systems upon which life depends. Clearly, changes in environmental education and communications are critical in order to provide agency for the general public to think and act in ways that sustain healthy local and global environments.

One encouraging sign is that the United Nations passed Resolution 57/254, declaring 2005 to 2014 the Decade of Education for Sustainable Development (United Nations, 2002).
This initiation seems to signal the shared value placed on education as a means of moving humanity forward to thinking and living in an environmentally sustainable society. Or does it? Bob Jickling (2006) poses an interesting question about the efficacy of the UN declaration; “Does this resolution look good on the surface, but lack the language and ideas to promote significant educational change?” (p. 102). Where might educational researchers go to develop future environmental education that fosters a sustainable society? My first inclination was to turn to ideas presented by systems analyst Donella Meadows. She spoke of intervening at strategic points, namely; structure of information flow, rules, goals, and values, in the systems that make up the dominant worldview (Meadows, 1997). By dominant worldview I refer to economic expansionist values that subordinate ecological sustainability values, and to a worldview that asserts that the primary worth of nature lies in its usefulness to modern society (Draper, 2002). In her paper, Envisioning a Sustainable World, Meadows (1994) defines a sustainable world as one, “in which people live within nature in a way that meets human needs while not degrading natural systems” (p. 1). She points out that, “building a responsible vision of a sustainable world … comes from values”, and to bring forward “sustainability in everything we do we need to take different kinds of steps which require different kinds of knowledge, skills and work” (p. 1). Considering Meadows’ position, it seems reasonable that to develop effective education for a sustainable society, research is needed in understanding the experience of living and thinking in terms of sustainability. There seem to be few academic studies about present day individuals or communities who have successfully practiced sustainability in their work and then made it their goal to educate the present and next generation. The question is then what can be learned from the lives of those who already practice a sustainability philosophy and are teaching it to others in terms of their values, understandings, knowledge and skills?
Generally speaking, I agree with Brown and Duguid’s view that learning is meaning driven, socially structured, and identity forming (Brown & Duguid, 2000). Keeping this view in mind, my thesis addresses learning and education through an exploration into the life experience of well known British Columbia ecoforester Merve Wilkinson, whose education practice is deeply situated in an environmental setting and integrates the natural environment in his teaching about ecological, social, and economic sustainability. In sharing his life stories of sustainability in practice I hope to create the context through which readers can gain entry into the key understandings of his education and teaching, which may prove useful in inspiring change in the education system, ultimately leading us toward an education system that helps create a sustainable society. My thesis research used the methodology of narrative inquiry to uncover events, influences, self-meanings, and actions in Merve’s life that helped him become a sustainability practitioner who also applied his sustainability education philosophy in his role as an educator.

Why have I chosen Merve Wilkinson for this research? As of the writing of this thesis Merve is 95 years old, he may not get around as quickly as he used to but he is still extremely sharp with an amazing memory, and is well known for his exceptional storytelling skills. It may seem odd to draw attention to his age, however, it shows that he has had a long, unique history learning about the place that he calls home and the place where he has passionately worked in his chosen profession of ecoforestry (the use of the terms ecoforestry and sustainable forestry will be used interchangeably). He has advocated strongly for sustainable forestry paving the way for others to do the same, never looking back but always demonstrating flexibility and adaptability as he learned more about his practice. He is a wise elder in the community, a mentor for sustainability thinking, feeling, and acting. In this research I explore his tremendous depth and
breadth of life experience in the realm of sustainability education and share my findings with readers.

Merve has had rich learning and teaching experiences. For over seventy years, he has learned through community, place, formal and informal study, experimentation and observation how to practice sustainable forestry on his property called Wildwood, on Vancouver Island, British Columbia. His thinking and actions have been a model for sustainability since the middle 1940s, and he has been and continues to be an insightful teacher about ecoforestry and the sustainability issues surrounding this practice. He is the focus of my narrative inquiry research because he possesses a deep intelligence and sensitivity pertaining to environmental values and practices connecting them to social and economic issues. He has many stories to tell that may prove useful at a time of ecological crisis when a new vision for environmental education, indeed, a new vision for an education system for the future is needed. I am also interested in how Merve’s stories may influence my education praxis in terms of changes in my thinking and teaching about sustainability education.

Thomashow (1996) has written about environmental archetypes such as John Muir, Henry David Thoreau, and Rachel Carson who were role models demonstrating ecological identity and literacy. Merve is a present day role model who embodies both ecological identity and literacy applying them to his ecoforestry practice and his teaching. His desire to educate others has touched many people, from primary school children to university level students, and from foresters to politicians in Canada and around the world. For his dedication to noble pursuits he has been the recipient of various honours: Order of British Columbia, and Order of Canada to name only two.
In September of 2005, I became acquainted with Merve teaching elementary school children through a local newspaper article that described the popular fieldtrip to Wildwood. This inspired me to visit Wildwood and find out more about him. As I entered Wildwood forest and gazed at the majestic ancient Douglas-fir (*Pseudotsuga menziesii*) and Western red cedar (*Thuja plicata*) trees, some of which had been alive at the time of Christopher Columbus, I immediately knew this was a special place deserving of reverence. Jay Rastogi, selected by Merve to continue the sustainable forestry practices and education programs as Manager of Wildwood, met me at the meadow of tall golden grasses where we began the guided tour of this old growth forest brimming with life. The now classic tour was the same place-based learning tour that many visitors have been thrilled to experience on weekends throughout the years. During the school terms, custom designed education programs are offered to public school and university students.

Sustainability education is highly valued by Merve and he wants it to thrive in the years to come. Bowers (1995) suggests that mentorship can play an important role in the learning process. Merve is aware of the power of mentorship since he too has encountered individuals in his life that have played pivotal roles in helping him develop sustainability thinking, feeling and acting. Over decades Merve has tried to pass his understandings about sustainability on through mentorship and teaching. Some individuals whom he has mentored have now taken his place as teachers at Wildwood. The sustainability education programs often aim to stimulate the sense of wonder in the visitors as they directly experience the sights, smells, and sounds of the old-growth forest. Furthermore, school programs help children become familiar with local forest species and develop their abilities to recognize patterns of interdependence between organisms that demonstrate sustainability within the forest ecosystem. Groups may then discuss how this knowledge and skill set is applied to the practice of ecoforestry, in other words, students are
given the opportunity to learn the knowledge important to think sustainably and are exposed to a model of acting sustainably. Another important component that the next generation of teachers’ is attempting to pass on to students and visitors is the passion Merve has for his ecoforestry practice.

Merve has demonstrated that environmental, social and economic sustainability can coexist and he has received accolades for achieving it. A few years ago world-renowned environmentalist and educator Jane Goodall visited Wildwood and praised Merve for his persistence in “working cooperatively with the forest” and that he has “not only preserved habitat for owls, squirrels, and bears, but he extract[ed] timber as well. There is nothing else I know of which compares to this” (Noisi, 2001). Duncan Taylor, Professor of Environmental Studies at the University of Victoria, notes that Merve’s

[...] work in ecoforestry has become a magnificent model … of resource extraction and usage that are socially just and based on community stability and maintenance of ecological integrity … and is a testament to the fact that this method of forestry can be very successful (Noisi, 2001, p.12)

As an educator Merve has used storytelling to advantage in his lessons on sustainable ecosystem-based forestry. His stories bring to life the type of thinking, values, relationships and actions that are essential for sustainability. In at least one of professor Taylor’s third-year environmental studies classes’ spontaneous applause broke out at the end of Merve’s story-filled lessons (Noisi, 2001).

Merve is an ordinary man who has done extraordinary work. He is an elder who, over his life has accumulated specialized knowledge about how to live and work in ecological balance. I would claim that he possesses an ecological form of consciousness, meaning that he shows a great capacity to be in tune with the relationships, processes and needs of nature. Not only does
he consider the ecological integrity of the forest, but also the social and economic factors that contribute to the idea of sustainability. In addition to devoting his life to understanding, practicing, and advocating for sustainable forestry, he saw value in applying his understanding of sustainability to the functioning of the greater society leading him to participate in the education of the public, through the creation of Wildwood as a teaching and learning setting.

Bowers (1995) argues that, “cultural and ecological survival will in part depend on the accumulation and communication of ecologically sustainable forms of knowledge and values” (p. 135). Merve possesses a unique and valuable philosophy of sustainability education. I studied Merve’s distinctive experience as learner and as educator I used a combination of narrative analysis as described by Polkinghorne (1995), and Clandinin and Connelly (2000). Through a series of interviews a deeper understanding was gained of Merve’s meanings, understandings, assumptions, plans, purposes, motivations, interests, feelings, and values as he reflected on his philosophy and practice of sustainable forestry and sustainability education, as well as, his vision of education for the future. My narrative inquiry research tapped into Merve’s stories and revealed his understandings of the key features and elements of his ecological consciousness, how he learned them, and how he has attempted to teach others.

These stories of experience are a documentation of how Merve’s sustainability philosophy and education philosophy have been developed. By sharing these understandings of Merve’s learning and teaching processes it may be possible to leverage change in education by adding to the dialogue, and reflection, on the fundamentals of sustainability education that may be effective in creating a sustainable society.
Statement of the Research Problem

In this research I explore, through narrative inquiry, how Merve Wilkinson’s personal knowledge and meaning of sustainability thinking and practice was learned over time and what he understands to be the fundamentals of an education for the future.

Research Questions

The main research questions for this study are:

1. What is the meaning, structure, and essence of Merve Wilkinson’s lived experience of sustainability learning, thinking, practice, and teaching?

2. How might the interview material best be organized to represent these meanings, structures and essences?

3. What is the essence of Merve Wilkinson’s view for an education for the future?

My Story: Sustainability Education – Where Is It?

I entered the teaching profession in 1991 after I had worked for a few years in research in the Water Contaminants Division at the Canada Centre for Inland Waters, and later in the Pathology Department at the McMaster University Medical Centre. Pollution and land conservation were big issues on my mind and I contemplated doing a Master’s of Science in toxicology and risk assessment but decided against it because I did not feel I had enough of a passion for it. My concern for the deterioration of the environment was strong but I was not certain how to be active in having an impact on reversing this trend.

I moved to the quaint agricultural town of Guelph, Ontario in the late 1980s. Feeling I needed a more rounded education in environmental studies I enrolled in upper year courses at the University of Guelph where I began in earnest to study the science of ozone depletion, acid rain,
eutrophication, global warming, the complex nature of Canadian environmental policy and
decision-making, and the intricacies of interpersonal communications. It was at an outdoor book
sale that I came across what would be my first bible of global environmental thinking, the
Worldwatch Institute’s publication entitled “State of the World 1988” which informed me of the
diminishing vital signs of the planet – forests were shrinking, deserts expanding, and soils
eroding to name a few and all at record rates. I remember thinking how could this be happening
when my culture seems to be oblivious of these shocking trends? In this publication I was
intrigued to learn about an informal organisation called the Club of Rome, a group of individuals
from various countries – scientists, educators, economists, humanists, industrialists, and national
and international civil servants – who had an eye toward the future. In addition, they were
concerned about the complex problems of poverty, environmental degradation, uncontrolled
urban spread, rejection of traditional values and other disruptions that they felt were troubling
humankind. Many of these were concerns of mine. They developed a means of examining
exponential industrial and population growth with the interrelationships incorporated in the
analysis. The shocking results were published as a book called Limits to Growth (Behrens, W.
fully understand what systems thinking and modeling was all about I had an intuitive sense that
they were right. I had been appalled by the growth I was seeing and the reduction of green space
and agricultural lands. I was even more motivated to take action but what could I do other than
recycle paper, plastic, and cans, ride my bicycle to local places I needed to go to, and live as
simply as I could? My immediate choices to change my life style seemed limited. I felt I needed
to make a larger impact than just a single person acting.
I was attracted to the activism of the Ontario Public Interest Research Group (OPIRG) and joined as a volunteer for their environmental education outreach program. By being part of this group I became more consciously aware and active in local environmental issues. I enjoyed the education outreach program, which involved two actors, one taking on the role of a tree and the other the informed and nature-valuing environmentalist. We took the skit to mostly primary and elementary classes where the tree enjoyed some star status. I remember the skit had two important aims, one was to teach the value of preserving the natural environment rather than allowing unfettered development, the other that everything was connected. For the first time I felt I was making a contribution to raising awareness of the impact humans had on the environment and offering a valid way of thinking about nature. However, it occurred to me that our environmental education skit might be looked at as entertainment rather than having long lasting learning value.

I had always thought that teaching might be a career I would choose because I had a love for learning and I was interested in helping others learn. It seemed to me that I could mix my passion for the environment with my passion for being a teacher. In this profession I might be able to contribute in raising awareness and understanding of our relationship with the environment and how we can engage in meaningful action to do what is right for the environment. I too had struggled for quite some time with the question of how I ought to act and I still do. My North American culture didn’t smile on those who went against development and continued economic growth. I began to question what my culture was telling me because I was becoming more confident that there was evidence showing that development and unlimited economic growth were, in fact, major contributors to the destruction of the ecological health of
the earth. I was of the opinion that education had a key role to play in addressing the environmental problems we faced.

After eight years of teaching, mostly at the middle school level, I found that I was only able to teach environmental education in a rather fractured and piecemeal fashion. There was very little integration of sustainability values, attitudes, skills, and knowledge into the regular curriculum. I often found that I worked alone on environmental field trips and there was limited time and few resources available. I experienced a crowded curriculum that seemed to support the culture of growth and development. Even the school cultures were not very inviting of a change in behaviours that would reduce the stress on the environment. I had noticed that fewer students walked or rode their bikes to school over the years. It became the norm for parents to drive their children to school resulting in a congested drop off area. The school district addressed this problem by expanding the parking area to accommodate the increase in cars and vans. In contrast, a colleague and I rode our bicycles to school two times a week during the spring and fall terms (42 km round trip) to demonstrate alternative choices of transportation, however, most other teaching colleagues could not fathom such an action. This made me think that part of the problem with environmental education was that many teachers did not understand how their interactions with the environment created some of the problems by re-enforcing poor environmental values. I started to think that it was a problem of education itself. The problem of education extended into the values of the teachers who were suppose to be educating children – But for what kind of future?

In 1997 I met a retired teacher who was passionately involved in environmental and social justice campaigns. I would consider her to be one of my mentors for she helped reinstate in me confidence that I was thinking correctly when it came to environmental issues and she
broadened my understandings of the political and economic interconnections to environmental problems. In addition, her enthusiasm is infectious and her energy considerable. She now lives at the ecovillage she started in Ontario; I am in awe of this accomplishment. Presently she teaches school groups about the sustainability practices occurring at the ecovillage’s organic farm. She continues to be a source of information and inspiration.

With this history of concern about the effectiveness of environmental education I started to explore my thesis topic. I knew that I wanted to inquire into a deep understanding of sustainability education in context – what it might look like and feel like. I was drawn to the power of story and myth as Cajete (1997) suggests, “it forms the foundation for each culture’s guiding vision of itself and its perceived relationship to the world.” (p.25) I saw how I could look at the learning of sustainability through the storied lives of those who actively practice and teach it. I felt I could use narrative inquiry to explore the lived experiences because as Clandinin and Connelly (2000) logically argue, “Experience happens narratively. Narrative inquiry is a form of narrative experience. Therefore, educational experience should be studied narratively.” (p. 18)

*Thesis Outline*

In chapter two I present an overview of the literature in the areas of narrative inquiry methodology, learning theory as it pertains to sustainability education, and ecoforestry practice. These topics inform the research approach and the research into Merve Wilkinson’s particular approach to sustainable forestry practices. In chapter three I describe the research method of narrative inquiry that I used to identify themes and construct the stories. I then describe how the stories were coded and analyzed to bring out the meanings and understandings of the participants. Chapter four focuses on Merve Wilkinson’s narrative, which is divided into three major themes. The first theme considers the influences on and context of his education and
development of his sustainability philosophy; the second theme looks at his approach to his sustainability education practice; the third theme examines his vision of sustainability education for the future. Chapter five summarizes my findings, and I discuss Merve’s influence on my understandings of sustainability education as a result of the narrative inquiry process, and the possible implications for a new framework for sustainability education. The thesis concludes with my suggestions for how this thesis project may be of use to others, and how I intend to use my work to prepare articles or materials that will help others know about Merve’s life work and contributions.
Chapter Two: Literature Review

Approach to Research

When I began this research I was skeptical of the effectiveness of environmental education to create a society that lived sustainably. I then asked the question; How can I gain useful knowledge of how the concept of sustainability can be learned and passed on to others so that they will live sustainably on earth? In essence my goal was to seek out examples of wisdom in both sustainability practice and teaching so that it may inform my knowledge about future education needs. I looked to Maturana and Bunnell (1997) for guidance in their article, *What Is Wisdom And How Is It Learned?* They suggest that the understanding of knowledge in Western culture has shown limitations due to the tendency of believing all thinking is causal, that is, A causes B. They claim “wisdom happens when people live their daily lives in the emotion of love following a course in which their conduct arises from an interlacing of comprehension and knowledge in multiple domains” (p. 17). They conclude with the assertion that those who learn wisdom seek self-awareness, self-trust, and “assume responsibility for their participation within their culture and their culture in the biosphere in a mood of joy” (p. 19). From this vantage point I was able to identify Merve Wilkinson as a person who may possess wisdom pertaining to sustainability learning, practice and teaching. I now present a literature review that provides a theoretical framework for this research, namely, narrative inquiry, sustainability education, and ecoforestry.

Narrative Inquiry

Narrative inquiry is a methodological approach that has been used in a wide range of disciplines, such as, history, anthropology, psychology, sociology and education and has
produced a substantive body of knowledge since its use starting in the 1920s (Chase, 2005: Clandinin & Connelly, 2000). Witherell and Noddings (1991) contend that, “Stories invite us to know the world and our place in it. Whether narratives of history or the imagination, stories call us to consider what we know, how we know, and what and whom we care about” (p. 13).

Narrative inquiry as a method is used to study the ways people think and feel using “storied knowing to attempt to give meaning to ways in which humans understand the world and communicate that understanding to others” (Hart, 2002, p. 141). It is also well suited for presentation of individuals existing in situated action (Polkinghorne, 1995), and it can help us understand “reasons for our actions which are motivated by beliefs … and values” (Bruner, 1990, as cited by Hart, 2002, p. 141). Clandinin’s (2007) extensive work in narrative research has shown that the reproduction of society, as illustrated in the narrative, “is an interactive process between the human individual and the traditions [the individual] inherits” (p. 87). She suggests that narrative inquiry offers a way to analyze the extent an idea or structure has been accepted or has shaped an individual’s experience. Through this method, Clandinin claims we might “better understand factors that have shaped identity constructions and agency perceptions in the past [so as to] better understand factors that continue to wield influence today” (p.87).

The approach to the research falls into the narrative method of biography/autobiography since I am attending to Merve’s self reported understandings of his lived experience through the stories he told of his learning, teaching and practicing sustainability. According to Freeman (2007) autobiographical understanding “can rescue us from ‘forgetfulness’ that so often characterizes the human condition;” it is a “fundamental tool for ethical and moral re-collection” (p. 132). Freeman states that the primary aim of autobiography is “not to produce reality but to actualize and explicate it, to bring meaning into being in such a way that the world is made
visible” (p. 136). Adult autobiographical recall of personal experience has been described as having been important in the development of a sense of ecological identity (Thomashow, 1996).

There is a dynamic relationship between the profound intellectual concepts of environmentalism and the memories and life experiences which validate them. My purpose … in this chapter [is] to show how an ecological worldview can be used to interpret personal experience, and how that interpretation leads to new ways of understanding personal identity. I call this process ecological identity work. (p. 2)

Similarly, Doerr (2004) reported the use of an environmental autobiography (EA) as a curricular tool to illustrate the autobiographer’s “dialectic interplay of experience in the world and the ways of thinking about it” (p.14). Doerr focused on her students’ educational experience as reported by the students, the resulting autobiographies, she believes, are “perfect, practical examples of the construction of knowledge” (p. 25). Furthermore, Doerr claims that the experience of the EA helped her students “become more involved ecologists” (p. 3). She states that there is power in autobiography,

[...] a power that goes toward creating a better world. As the student becomes aware of how important the environment is in his own life, he becomes connected to the space in which he has lived and in which he hopes to live, and the seeds of stewardship are sown. (p. 185)

According to Connelly and Clandinin (1990), “The main claim for the use of narrative in educational research is that humans are storytelling organisms who, individually and socially, lead storied lives. The study of narrative, therefore, is the study of the ways humans experience the world” (p. 2). In the narrative inquiry tradition the researcher and narrator interact throughout the interview process as described by Clandinin & Connelly (2000)
Narrative inquiry is a way of understanding experience. It is a collaboration between researcher and participants, over time, in a place or series of places, and in social interaction with milieus. An inquirer enters this matrix in the midst and progresses in this same spirit, concluding the inquiry still in the midst of living and telling, reliving and retelling, the stories of the experiences that make up people’s lives, both individual and social. Simply stated, … narrative inquiry is stories lived and told. (p. 20)

Furthermore, through the interview process, Waterhouse (2007) claims the telling and construction of stories has “potential as a powerful tool for reflection, learning and development, both for the teller and the listener” (p.273). Keep in mind that the element of interpretation is involved in the retelling of the stories. Hart (2002) states that the researcher uses interpretation “in providing a convincing account of what the story means, or so the story makes sense not only to the teller but the listener” (p.142). This is where critics of the method ask, why certain stories were told and not others, as well as, questions of “presentation and legitimation” (p.142).

Since qualitative narrative inquiry tends to focus on “individual voices analyzed to understand historical memory at the micro level” (Clandinin, 2007, p. 87) rather than a representative sample of society its results do not lead to generalizations. However, its value to research is in the creation of text that offers both researcher and “readers a place to imagine their own uses and applications.” (Clandinin & Connelly, 2000, p.42)

Tanner (1980) was one of the first to use a qualitative methodology in his research to try to understand the kinds of learning experiences that produce persons who think and act to maintain “a varied, beautiful, and resource-rich planet for future generations.”(p.20) In Chawla’s (1998) review of research methods used to explore life experience of individuals involved in environmental education she suggests that qualitative research is best suited to probe into the “feelings and self-understandings that transform an individual’s knowledge and attitudes into
actions or bind them into inaction” (n.p.). An increasing body of evidence shows that narratives can play a significant role in the construction of learning in all subject areas (Egan, 1988; Stinner and Williams, 1993). Furthermore, telling stories can play an important role in helping us form our views: of self, of each other, of our culture, and the system of beliefs and values that encompass our worldview (Korten, 2006; Fisher, 1989, as cited by Polkinghorne, 1995).

Mary Catherine Bateson states that, “Our species thinks in metaphors and learns through stories” (1994, p.11). The stories that Merve tells of his life experience also provide readers of the research with an opportunity to relate to his understandings of sustainability education and practice, and examine the context of how his and their values, beliefs and knowledge have been formed.

*Learning Theory As It Pertains To Sustainability Education*

In the review of the extensive literature on sustainability education ideas and practices, there are three main themes that have emerged that serve as a framework for discussing the literature relevant to the thesis. The first theme is childhood nature experiences; the second theme is providing opportunities for agency, the ability for the individual to act in an environmentally responsible way; and the third theme is democracy in education. Before I present these three themes I introduce the field of sustainability education and briefly look at relevant learning theory.

The field appears to have developed from a response to “the crisis of resources, population, climate change, species extinction, acid rain, deforestation, ozone depletion, and soil loss,” (Orr, 1992, p.83) and the gaps in the “thinking about the kinds of knowledge and the kinds of research that we will need to build a sustainable society” (Orr, 2004, p.11). There is still dispute as to what the term sustainability actually means but what is frequently used is the World
Commission On Environment and Development’s (Brundtland, 1987) definition that sustainable development means “meeting the needs of the present generation without compromising the ability of future generations to meet their own needs” (p. 43). It should be noted that in this definition the needs of non-human species are not explicitly included. According to Orr (1992) the word sustainable “conceals as much as it reveals. Hidden beneath the rhetoric are assumptions about growth, technology, democracy, public participation, and human values” (p.23). Orr brings up an important point since it is our assumptions that will direct our research questions and ultimately what direction education will take. First and foremost, the assumptions that Orr refers to need to be assessed for their validity, that is; what assumptions are compatible with bringing into reality a sustainable society?

Since this study looks into the context of and influences on Merve’s learning process, and his education philosophy, as reported by Merve, it is important to have a basic understanding of current learning theories as they relate specifically to environmental learning. Learning is very complex, thus it is a difficult phenomenon for researchers to describe in terms of a simplified theory. In the broadest sense learning may be thought of as a change in knowledge or understanding or behaviour. Sociocultural theorists such as Rogoff (1990) propose, “learning is a process of transformation of participation in ongoing cultural activities” (p.182). In an attempt at a general learning theory, Bransford, Brown and Cocking (1999) put forward these generalizations: new learning is strongly influenced by prior knowledge and experience; learning is enhanced when students can link information to key concepts or major ideas or themes; and students become more effective and efficient learners when they are explicitly taught to direct and manage their learning.
Brown and Duguid’s (2000) view of how to think about learning has these three dimensions, the first being, people learn in response to need.

When people cannot see the need for what’s being taught, they ignore it, reject it, or fail to assimilate it in any meaningful way. Conversely, when they have a need, then, if the resources for learning are available, people learn effectively and quickly. (p.136)

They suggest that it is important “not to force-feed learning, but to encourage it, both provoking the need and making the resources available” (p.136). David Sobel (2007), writing about children learning environmentally responsible behaviour, recognizes that learning settings can be critical to provoking the need to learn. The second dimension they claim is learning is a social process and that social groups provide the resources through which their members learn. Thirdly, learning needs to be understood in relation to human identity formation or sense of self (Bruner, 1996). They comment that Bruner makes a distinction between learning about and learning to be. Brown and Duguid (2000) explain this distinction in this way; “Many people learn about a lot of things … but … [l]earning to be requires more than just information. It requires the ability to engage in the practice in question” (p.128). This is an interesting distinction for it may have important implications for sustainability education in terms of how learners learn to be environmentally responsible citizens of the world.

The work of Lave and Wenger (1991) focused on the social nature of learning rather than the individual simply being the recipient of factual knowledge or information. Their research showed learning a practice through apprenticeship, involved a process where learners become members of a community of practice. In this case learning is situated in the community.

Learners inevitably participate in communities of practitioners and…the mastery of knowledge and skill requires newcomers to move forward toward full
participation in the sociocultural practices of a community. ‘Legitimate peripheral participation’ provides a way to speak about the relations between newcomers and oldtimers and activities, identities, artefacts, and communities of knowledge and practice. A person’s intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a sociocultural practice. (p. 29)

Here we see how learning is a facet of engagement in the sociocultural milieu of a community of practice. It is important to note that this learning process is a vehicle that helps to reproduce the culture of the practice, however, personal growth in the practice, as shown in creative contributions, is an expectation once overall mastery of the craft is achieved.

In a similar fashion, it has been shown that children learn through keen observation and listening as an aspect of participation in mature community activities (Angelillo, Correa-Chavez, Mejia Arauz, Paradise, & Rogoff, 2003). This type of learning is referred to as intent participation and is prevalent in cultures where young children are integrated into family and community activities with increasingly deep involvement. New learners seem to observe whole activities to figure out processes that they will later engage in. Their understanding far exceeds what is necessary for mimicry since the roles they play in a shared activity often involve coordination with others. The authors claim that intent participation is a “powerful way of fostering learning” (p. 176).

Falk and Dierking (2000) proposed a model for thinking about learning, the Contextual Model of Learning, which rose partially from their research into the informal learning that occurs from visits to museums. They contend that the overall framework they provide “should work equally well across a wide range of learning situations, compulsory as well as free-choice” and through the model they offer both a “holistic picture of learning and accommodate the myriad specifics and details that give richness and authenticity to the learning process” (p. 136). In this
model, learning is constructed over time, as the learner interacts with three overlapping contexts: the physical, sociocultural, and personal. The Contextual Model of Learning seems to be in harmony with accepted theories from research in the field of learning. Some examples are: Bruner’s (1960) constructivist theory of learning as an active process in which individuals construct meaning based on prior and current knowledge; Bruner (1973) added to the theory that culture with its set of values, skills and way of life was a “toolkit” for sense-making; Bandura’s (as cited by Grusec, 1993) theory of social learning in terms of guided instruction and modeling; and Lave’s (1988) theory of situated learning.

Looking more closely at the Contextual Model of Learning, the three contexts - physical, sociocultural, and personal are said to interact with each other in a dynamic dialogue over time. This framework seems to provide a means of researching the richness of a person’s learning process. The physical context refers to the environments where the learning occurs. The sociocultural context refers to how the learning may be a shared experience with possibilities for collaborative learning, and how experiences may be mediated through the social, cultural and historic setting in which the learning takes place. The personal context describes the person’s interests and motivations, learning style preferences, prior knowledge and experience.

Learning can take place formally (schooling) or informally (family/home, museums, interpretive centres, or other non-school settings). Regardless of the learning type, formal or informal, when people are intrinsically motivated to learn, that is they are learning for the joy of it and personal benefit, they become highly effective learners (Falk & Dierking, 2002). With this introduction in mind, let us now turn to the theme of early childhood nature experiences as an entry point to sustainability education research.
Research suggests a strong link between childhood nature experience and adult appreciation, concern and activism for the environment (Chawla, 1999, 2003; Finger, 1994; Hart, Palmer, Robottom, & Suggate, 1999; Lekies, & Wells, 2006). In studies that asked environmentalists from Norway and Kentucky, USA, to explain the sources of their commitment to action, Chawla (1999) found the following pattern: as children they spent many hours outdoors in memorable wild or semi-wild places accompanied by an adult who taught respect for nature. This pattern appears to cross cultures, for example, in a meta-analysis that compared formative influences of adults from the UK, Australia, and Canada, Hart et al (1999) concluded that positive, in and with the environment experiences were most frequently mentioned in the development of long-term awareness and concern for the environment. Also critical was the influence of people, particularly close family and other adults, including teachers, in inspiring and developing environmental behaviours. Sobel (2008) adds to the discussion that environmental stewardship or care “isn’t rooted in knowledge based education but is grounded in early experiences in which children feel love for and oneness with their natural surroundings” (p. 14). In, The Sense of Wonder, Rachel Carson suggested how to nurture the natural inclination children have to connect with nature; “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” (1998, p. 55). From this perspective learning is an interactive relationship between the companion, the child and the natural environment (Nicol, 2002).

Middle childhood seems to be a developmental stage uniquely receptive to the formation of relationships with nature and the initial grounding for identity. It is at this stage of childhood with all the power of a sense of wonder that ecological literacy potentially begins (Orr, 1992).
Ecological literacy according to Orr involves “that quality of mind that seeks out connections” (p. 92). It not only covers “the basics about the earth and how it works,” but also the ability to “observe nature with insight, a merger of landscape and mindscape,” as well as, the ability to “think broadly, to know something of what is hitched to what” and especially that ecology is important “for history, politics, economics, society, and so forth” (p. 85-87). Beyond knowledge and understanding of interrelatedness, ecological literacy entails an attitude of care or stewardship. Sobel writes that a “sense of deep empathy, of being saturated with nature, yet unique and separate, is one of the core gifts of middle childhood” (2008, p. 17). He believes a child’s sense of continuity with nature will lay the foundation for ethical environmental behaviours, and the sense of separation provides a sense of agency – a sense of the ability to act responsibly for the natural world. Furthermore, Sobel argues that the establishment of a deep bond with nature during childhood creates the commitment to life-long nature protection. Similarly, Thomashow (1996) in his work on ecological identity acknowledges that middle childhood is a critical period where children develop an expansion of the “sense of self … [establishing] their connections to the earth, forming an earth matrix, a terrain symbiosis, which is crucial to their personal identity” (p.10). The experiencing of nature fashioned by the glimpses into novel ideas, facts, knowledge, the stirring of feelings, and the excitement of possibilities during childhood resemble the stage of romance described by Whitehead (1962) in his essay, The Rhythm of Education. Attention to this stage, according to Whitehead, is necessary for the educational process to progress to fruition.

Education must essentially be a setting in order of a ferment already stirring in the mind: you cannot educate mind in vacuo. In our conception of education we tend to confine it to the second stage of the cycle; namely, to the stage of precision. But we cannot so limit our task without misconceiving the whole problem. We are
concerned alike with the ferment, with the acquirement of precision, and with the subsequent fruition. [...] It is evident that a stage of precision is barren without a previous stage of romance [...] It is simply a series of meaningless statements about bare facts, produced artificially and without any further relevance. (p. 29)

Whitehead refers to the greatest stage of romance occurring in the period of a child’s life falling between the ages of eight to thirteen, which corresponds to the middle childhood years Sobel has highlighted. An important point Whitehead makes is that at this period children are capable of speaking their language and retaining thoughts; and they have developed abilities in observation, concentration, and manipulation; “the child thus enters upon a new world” (1962, p. 34). Whitehead believes that once interest is awakened in a child at the stage of romance, education may proceed in satisfying “a natural craving for the wisdom [wise use of knowledge] which adds value to bare experience dominated by wonder” (p. 50). However, imparting mere knowledge Whitehead claims will defeat the pursuit of wisdom; for ideas need to “find important applications within the pupil’s curriculum. [...] keeping knowledge alive, preventing it from becoming inert, which is the central problem of all education” (p. 7). Sobel (2007) suggests providing learners with a sense of agency will lead to the desire for further knowledge and its wise use.

During the 1960s and 1970s it was assumed in environmental education research that knowledge led to attitude that led to behaviour (Sobel, 2007). However, Hungerford and Volk (1990) found that this linear model was not necessarily the case in changing environmental behaviours. They claimed three factors contributed to responsible environmental behaviours. First, people take an interest in the environment (entry level variables). Second, there exists personal investment in environmental issues and follow up with making themselves knowledgeable about the issues (ownership variables). Third, people are aware of and practice
skills in environmental action strategies (empowerment variables). The problem with the linear model, according to Sobel (2007), is the assumption that knowledge comes before behaviour. He believes schools have focused too little time on developing responsible environmental behaviours; instead schools have taken on the role of disseminating knowledge about environmental systems but the school is not designed as a model of sustainable systems and values. Sobel proposes an alternative way to develop these behaviours by providing young people with agency to act for the environment.

One of the first things you help children to learn is that their behaviour makes a difference. [...] This sense of personal responsibility leads to wanting to understand why turning off the lights saves money and … reduces carbon dioxide production. The sense of agency leads to a desire for knowledge and a desire to know other skills for reducing carbon dioxide production. This leads to the intention to make other changes, if and when the choices present themselves, which leads to responsible environmental behaviour. (p. 16)

From Sobel’s perspective children who have a sense of personal responsibility will seek out knowledge about the issues and possible action strategies. He believes this will stimulate the intention to take action, and that under supportive conditions the children will engage in environmental behaviours. But what are these conditions? According to Sobel (2007) young children should not be burdened with environmental problems beyond their local community sphere. This view stems from a study conducted by Finger (1994), which showed feelings of fear and anxiety about environmental problems tended to discourage environmental behaviours in adults. Sobel calls this phenomenon, ecophobia, considering the same effect is likely in children’s responses to environmental tragedies beyond their direct experience, comprehension and control. From his study, Finger recommended a balance in education consisting of education about environmental problems with opportunities to address the problems constructively. In
addition, Finger concluded that experiences of environmental activism appeared to be a crucial condition of later environmental behaviour. Thus Finger recommended integrating social and collective activism into environmental education. To Orr (1992) environmental studies has a political component in that it “ought to have a clear direction favoring harmony between human and natural systems while preserving objectivity in the handling of facts, data, and logic” (p.142).

For Sobel (2004) place based education seemed to be a plausible answer to Finger’s recommendation for integrating social and collective activism into environmental education. His idea of the pedagogy of place transforms education so that the environment is the integrating context (EIC) for the curriculum. Using the data from forty schools in twelve states practising EIC, the State Education and Environment Roundtable (SEER) found some promising results; first, an increase in standardized test scores in EIC schools compared to non EIC schools, and second, gains in students’ abilities to problem solve and think critically (Sobel, 2004). It is worth noting that one of the guiding principles of all EIC schools was to engage learners in “real-world projects in the local environment and community” (Sobel, 2004, p. 54). Through real-world projects students were connected with environmental issues affecting their community and nearby natural world. However, for students to feel empowered one study showed that it was critical for students to see that others took their efforts seriously and that meaningful gains were achieved through their collective action (Bull, 1992, as cited by Chawla & Flanders Cushing, 2007). In a review of studies of learning outcomes and learning experiences focusing on environmental education, Rickinson (2001) indicated that the evidence showed the importance of learners in the process of learning, that is, as active participants rather than passive recipients. Furthermore, Rickinson concluded that programs that appeared to be the most effective in
promoting environmental knowledge, attitudes, and behaviours have one or more of the following components: outdoor residential fieldwork that lasts a week or more; out of school visits encompassing preparation and follow-up work; school based and community projects with parental involvement; and environmental focus on actual local environmental issues as opposed to imagined or artificially constructed ones.

Considering the relationship between knowledge, sense of agency, and environmental behaviour Sobel (2007) suggests school culture needs to be reshaped such that the school community – teachers, students, and staff – are models of environmental stewardship and cultivate an ethic of stewardship. He believes that for the thirteen years of schooling students ought to be embedded in a culture that gradually increases their stewardship responsibilities as they mature and their level of competence grows. Within this culture Sobel explains children can engage in environmental activism, which is important for the development of long-term environmental behaviour, that is local, manageable, and at an appropriate cognitive level. However, Hart (2002) argues that fostering a stewardship culture requires first an examination of taken for granted assumptions and values about human ties with the natural world. This is especially important for teachers since they present, and legitimate the dominant cultural values into education settings (Bamford, 1999, as cited by Hart, 2002). Furthermore, assumptions of why and how people act sustainably (or not) need to be examined for their authenticity before conclusions may be drawn about the effectiveness of environmental pedagogies (Gough, 1999, as cited by Rickinson, 2001).

Orr (1992) also supports the pedagogy of place offering arguments why the integration of place into education is important. One of the foundations of educating people to live sustainably is summed up in his statement, “all education is environmental education” (p. 90),
which is strikingly similar to Sobel’s ideas for EIC schools. When ecology is the integrating context in the curriculum Orr believes students learn that they are *a part of* the natural world rather than *apart from* it. In addition, students who have direct contact with the natural aspects of a place will develop a real sense of belonging in the natural world, and an understanding of their dependence on nature for life, as well as, the importance for an ethic of stewardship. Orr points to benefits in intellectual development whilst engaged in the study of place.

The study of place involves complementary dimensions of intellect: direct observation, investigation, experimentation, and skill in the application of knowledge. […] for Mumford and Dewey, practical and manual skills were an essential aspect of experience, good thinking, and to the development of the whole person. (p. 128)

When thinking and doing are coordinated in the study of specific places and problems Orr argues, knowledge seems to shed its abstractness; in its stead knowledge becomes “tangible and direct” for the student (p.129). This is an important point since it has been shown that certain aspects of global environmental issues, such as, process, and interconnections appear difficult for students to understand and can be a source of confusion and misinterpretation (Rickinson, 2001).

Orr sees the study of place as a way of educating students to think broadly and to examine the vast connections within natural systems and between academic disciplines. Several researchers have supported the idea that curriculum organized as subject matter in disciplines is inappropriate for learning about complex, interdisciplinary social and environmental issues (Robottom, 1987, 1988, Elliot, 1999, and Posch, 1999, as cited by Hart, 2002). Orr explains how a more holistic and meaningful education may be achieved through the pedagogy of place:

Places are laboratories of diversity and complexity, mixing social functions and natural processes. A place has a human history and geologic past: it is a part of an ecosystem with a variety of microsystems, it is a landscape with a particular flora
and fauna. Its inhabitants are part of a social, economic, and political order: they import or export energy, materials, water, and wastes, they are linked by innumerable bonds to other places. A place cannot be understood from the vantage point of a single discipline or specialization. It can be understood only on its terms as a complex mosaic of phenomena and problems. The classroom and indoor laboratory are ideal environments in which to narrow reality in order to focus on bits and pieces. The study of place, by contrast, enables us to widen the focus to examine the interrelationships between disciplines and to lengthen our perception of time. (Orr, 1992, p. 129)

Similar ideas on nature centered learning, and connecting with place are found in traditional North American Indigenous education as described by Cajete (1997). In this tradition the approach to education is translated as “seeking life” or “for life’s sake” (p. 34). Education was based on preserving, protecting, and perpetuating life itself – a definite ecological orientation. Cajete shares the belief with Orr that, “the way we educate makes all the difference in the world,” meaning that the educational orientation is what informs the learning process and ultimately how we see reality and view the world. Traditional Indigenous education’s orientation focused on “learning about life through participation and relationships in community including people, plants, animals and the whole of nature” (p. 26) with the aim of becoming complete and living in harmonious relationship to a place. Expressed in their process of education was the goal of understanding nature, appreciating it “as the source of one’s life, and livelihood and well being” (p. 75). This ecological orientation to education was based on the premise that “humans not only live in relationship to the natural world; we are the natural world” (p. 80). Thus an integral part of early life and learning for all children involved direct, daily experience with animals, plants and the rest of nature, guided by the understanding and experience of Elders. Stories in combination with personal encounters formed the basic foundation for learning and
teaching. Through the use of symbols, stories or myths and other art forms reflected important relationships and qualities, including spirit, of animals and plants in their environment.

Cajete described the learning path as developmental, involving several essential steps. The first way of ecological thinking and knowing was the physical place or what might otherwise be called natural and cultural heritage. All learning began with the appropriate orientation – respect and responsibility for, and kinship to the environment. Children’s awareness of the physical environment, connections with nature and other people in the community began with their surroundings close to home then, as in concentric circles, the awareness as they matured extended to ever-larger domains – community, village, and country. The next step in the learning process was to establish a deep understanding of one’s relationship to other people, plants, animals, natural elements and phenomena. At this stage the physical senses and the emotions were called into play so that children and youth could fully experience and begin to understand the differences and similarities between natural entities and their own lives, appreciate the other for uniqueness, as well as, develop the ability to “hear, observe, perceive and emotionally feel the spirit moving in all” (p. 48). The third step nurtured the virtue of humility. Learning focused on the further development of respect, ethics, morals, and proper behaviour when dealing with the natural world through the practice of reflective contemplation, responsible communication, and action that produced something that was useful and had spirit. The fourth step – wisdom – was achievable only from maturity and a long history of experience with all aspects of life. This stage was usually the realm of the Elders, a revered state, where the person had reached completeness. The Elders played a major role in the education of the community; maintaining memories of stories, myths, rituals and essential social structures all for the well-being of the community and to help teach them to “remember to remember their
essential ecological relationships” (p. 91). The metaphor, “Look to the Mountain”, illustrates the focus of traditional education as “a journey to a higher place, a place that allows one to see, where one has been, is, and may wish to go” (p. 91).

According to Cajete, North American Indigenous people profoundly believed they not only lived in relationship to the natural world but also were the natural world. Therefore it was very important that their educational orientation and process be grounded in connecting with place. They perceived the world as a sacred place, as a living soul. Together memory, feelings, and relationship to earth formed a sacred covenant. From this orientation they believed they had responsibilities to the land and all living things. Their connection with land “symbolized their connection to the spirit of life,” whereas, a disconnection with land resulted in the loss of identity and life meaning (p. 85). In addition, they understood that “interactions with place affects the physical and psychological make-up of people and also the place changes,” which signified to them the reality of a “co-creative relationship” (p. 84). From this paradigm of connecting with place they were able to learn and teach by “practicing the art of relationship” (p. 81). Traditional education “sought to perpetuate a sustainable and mutually reciprocal relationship” and this relationship was culturally expressed as land stewardship.

Cajete explained the need to practice stewardship comes from both a spiritual orientation and rational thought of mutual interdependence (nothing is self-sufficient), and reciprocity of relationships (similar to Karma). In traditional North American Indigenous education profound lessons were taught in order to develop stewardship; a sense of deep responsibility for maintaining conscious relationships, with the right balance and attitude, with those things human life depended on for survival. A philosophy of natural democracy provided the guiding principles for interactions with the physical world, meaning that animals and plants had rights
and must be given due respect. Environmental ethics also guided the learning process by emphasizing “life should be preserved for life’s sake” and “humans were responsible to ensure they respected life and preserved it if the web of life was to be maintained” (p. 89). Orr (1992) regards strong democratic participation as a prerequisite for sustainability. He believes that ecological literacy can force people to see the connections between their destructive actions and the ecological crisis and this realization can lead to “a revitalization and broadening of the concept of citizenship to include membership in a planet wide community of humans and living things” (p. 88). From this view of citizenship, all life, as an inhabitant of a place, would have an entitlement to protection. Aldo Leopold (1966) approaches this idea of citizenship from a land ethic perspective wherein he believed people could live in harmony with nature if they changed from “conqueror of the land community to plain member and citizen of it” (p. 240). Both Leopold and Orr acknowledge that respect and rights extending beyond just humans needs to be part of an education that teaches people how to live sustainably.

_Ecoforestry Practice_

In this section I present a brief overview of our knowledge of forestry and its history, mainly in British Columbia as this field has been the lifework focus of the subject of this research, ecoforester, Merve Wilkinson. I have attempted to differentiate silviculture from ecoforestry, and I conclude with a look at some views of forestry in the future.

A forest of course is not just trees. It is a complex ecosystem where living and non-living factors of the environment interact in the process of living. Energy and materials are exchanged in these interactions, but it is more than this; these systems may modify their habitats resulting in changes in the characteristics of the forest ecosystem and may force species adaptation (Wittbecker, 1997). Thus a forest is continually evolving with the changes in biogeoclimatic
processes over time (Drengson, 1993). Human influence on forests has had a long history as documented in Michael Williams’ (2003), *Deforesting The Earth: From Prehistory to Global Crisis*. Williams adeptly shows how, why, and when humans of many different cultures and locations around the world removed trees changing forests in the process. Human use of tree products for the development and growth of human civilizations, industrial society, and the clearing of forests for agriculture and animal domestication have all shaped the human economies, societies, and the landscapes. The forest cover on the earth was reduced most dramatically between the years 1945 to 1995. The developments of new technologies used in forestry have made it much easier to harvest timber but at the same time these technologies have caused severe disturbances to the forests (Williams, 2003).

Modern forestry is defined as “the art, science, and practice of managing forested landscapes to provide a sustained production of a variety of goods and services for society” (Kimmins, 1999, p. 49). However, Kimmins contends that some understand forestry as only silviculture, which is defined as:

The art, science, and practice of controlling the establishment, composition, health, quality, and growth of the vegetation of forest stands. Silviculture involves the manipulation, at the stand and landscape levels, of forest and woodland vegetation, including live vegetation, and the control or production of stand structures, such as snags and down logs, to meet the needs and values of society and landowners on a sustainable basis. (Dunster, 1996, p. 284)

Some forest ecologists would disagree that silviculture is or has been conducted on a sustainable basis (Smith, 2008: Wittbecker, 1997). In simplified terms silviculture is the art and science of establishing, tending, protecting, and harvesting a tree crop (Kimmins, 1999). Kimmins states that in Canada most people equate forestry with timber production (silviculture);
other values such as soil erosion, watershed and wildlife habitat protection are not as high on the list of society’s wants and willingness to pay.

The following is a synopsis of Kimmins (1999) explanation of the history of Canadian forestry. Forestry history in Canada is relatively recent especially in the west. It began as an unregulated and exploitative enterprise in and around settlements; it then spread with increased colonization resulting in the elimination of forests in more remote areas. As concerns grew about the possibility of timber shortages due to unregulated cutting, legislation was introduced which was intended to ensure sustainable yields of timber, to generate jobs and economic values from the forest. However, forest ecology was still a science in its infancy and did not provide the understandings needed for a sustainable timber yield to be realized over time. In addition, the political will to enforce and provide financial support needed to maintain early efforts in silviculture were deficient. The result was a very slow establishment of sustainable forestry management; indeed, the “standards of forestry management still leave much to be desired” (p.52). Presently, there is a growing recognition of the ineffectiveness of a non-ecological approach which is gradually leading to a change to an ecological foundation for forestry management. What is helping move this transition is the public outcry about the environment. Strong demand exists for the addition of parks, wilderness areas and wildlife protection. Governments have shown some signs of increasing investments in these areas. In conclusion the history of forestry shows that the primary concern is always anthropocentric, that is satisfying the needs and desires of humans first then look at the conservation of resources. Kimmins believes that this follows Abraham Maslow’s hierarchy of human needs; only when the basic needs of human survival are satisfied will people express concern about issues such as environmental quality, resource conservation and biodiversity.
Clearcut logging has been the major method for timber extraction in the forest industry in British Columbia (Kimmins, 1999). Dunster (1996) defines clearcut logging as:

A silviculture system in which the entire stand of trees is cleared from an area at one time, regardless of their potential utility on or off the site. It is usually used as a simple means of obtaining wood fibre, but may also be used as a means of removing low quality standing timber in order to regenerate a new forest. Clearcutting results in the establishment of a new even-aged stand of trees, which can be naturally or artificially created. Clearcutting can be implemented in blocks, strips, or patches. (p. 61)

Clearcut logging as a silviculture practice is the antithesis of the methods used in ecoforestry. Using the definition found in the Dictionary of Natural Resource Management (Dunster, 1996) ecoforestry starts with a foundation in an “ecological paradigm using ecocentric values” (p. 100). Ecocentric values entail the “value system and attitude that sees humans as a part of larger ecological processes and systems” and considers humans as “having a primary obligation to take responsibility for themselves and their actions. Past failures to accept this responsibility are seen to be a root cause of contemporary environmental crises” (p. 100). Thus ecoforestry is a type of forestry management that rejects

[…] the twentieth-century industrial-agricultural model of large-scale clearcutting of natural forests and their replacement by human-designed plantations of few tree species. Ecoforestry promotes alternative practices based on the management of human activities so as not to interfere with the functioning natural forest ecosystems, and also to restore those damaged by destructive human practices. It is claimed by proponents of ecoforestry, eco-agriculture, ecofishing, etc., that all resource use should be based on the same approach described for ecoforestry. Advocates of eco-practices base all development activities on the wisdom inherent in a place, respecting all values, and aim for ecosophy, that is, ecological wisdom and harmony. (p. 100)
Industrial silviculture continues to be mainstream, however, new conceptual approaches are being put forward in light of projected climate change disturbances and a better understanding of the complexity of forest ecosystems. Coates and Haeussler, (2009) propose that the old paradigm that nature is more or less a static and predictable system needs to be replaced with a view that emphasizes that nature is continuously changing and that the trajectory of these changes is often uncertain. They recommend “studying and viewing forests as complex systems and managing for ecological resilience and complexity needs to be explicitly added to the forest professional’s toolbox” (p. 11). Along the same theme of uncertainty, Smith (2008) interviewed forest ecologist and ecosystems analyst Jerry Franklin, who shared his view that future natural resource professionals need to become more skeptical scientific thinkers:

I want students to come out of school knowing the material that they were taught, but also to be very skeptical and prepared to examine that material critically and, when it just doesn’t fit anymore, put it down and adopt a different perspective. (p. 16)

Franklin sees natural resource management as moving into the realm of a social science where society plays an important role in the decision making process of how a resource is managed. He believes that ecological sustainability is imperative therefore managers need to have a sound understanding of ecosystems and be able to communicate the representation of the ecosystem clearly to society. Perhaps in this way forestry and foresters may once again be identified as “forest stewards, not timber beasts” (p.17).
Chapter 3: Research Methodology

Research Design and Rationale

Participant.

In this study of reflection, story, and learning I invited ecoforester, Merve Wilkinson to participate in this study of his outstanding educational practices informed by a life of work in sustainable forestry. Merve Wilkinson was trained in British Columbia in forestry techniques and theory in the late 1930s up to the early 1940s and was later influenced by European practices of sustainable harvesting. He resisted the pressure to clearcut the trees on his property. Instead he developed a practice of ecoforestry and pioneered the first operation of its kind on the West coast of North America in 1938. Later Merve realized how his ecoforestry operation could make a difference by educating others about sustainability thinking and practice, a place to share ideas and develop practical skills. He has guided educational tours of his forest for decades, telling his stories about his thinking and practice of ecoforestry and the community of creatures that dwell there. Merve was selected as the focus of this research because he is a teacher, Elder, and model of real life sustainability values and actions.

Site.

The main approach to the research was engagement in a series of interviews with Merve Wilkinson. All interviews took place at Wildwood Forest located south of Nanaimo on Vancouver Island, B.C, Canada. The interviews took place in the kitchen of Merve’s beautiful yet rustic half-century log home, which he built at Wildwood Forest. The property is 70 acres (28 hectares) in size and is divided almost in half by the southern portion of Quennell Lake. Glacial scouring has contributed to its diverse landscape of marsh sites as well as dry ridges. The forest
is a mixture of old growth and second growth trees. The tree species found on the property include Douglas-fir, western red cedar, grand fir, Arbutus, big leaf maple, red alder, western hemlock, bitter cherry, and Pacific dogwood. Merve has been practicing sustainable forestry there since 1945 when the first cuts were made. Little is known about the history of First Nations in the area and how they used the forest in terms of logging. Wildwood is located in the biogeoclimatic zone known as the Coastal Douglas-fir zone, which is characterized as a drier region of temperate rainforest, with cool, moderately humid summers, and mild, cloudy wet winters. Further information on the Internet about Wildwood and ecoforestry can be found at


Data Collection

Procedures.

I conducted three in-depth interviews with Merve. These three separate interviews took place over a span of one month and the amount of recorded time was approximately two hours for each session. The reason for doing it this way was to provide sufficient time to capture many rich stories containing Merve’s thoughts, feelings and descriptions of his lived experience. Also because of his advanced age, 94 years old, I did not want him to be fatigued by an extensively long conversation. This arrangement worked very well with our schedules and to my surprise Merve seemed to become more animated as our conversations progressed. As he told his stories I could sense that he was reliving them and I was being invited to share his observations, understandings, and knowledge of events in his life of learning and teaching. The interviews were recorded on a mini cassette video recorder and field notes were written immediately following the interviews. To ensure clarity and accuracy transcripts were written within a week
following the interview. This process was very laborious since I transcribed approximately 10 hours of interviews without the aid of a voice activated transcribing software package. However the up side to doing my own transcribing was that I became aware of details and I think it helped me distinguish various themes early in the coding and analysis process described later in this section. I arranged to read the transcripts to Merve for content review and feedback. During these sessions Merve clarified meanings, times, dates, and names where there had been some doubt. In addition, I made comments in my field notebook or on the transcript document on my computer. I kept a separate, simple journal as a record of reflections on my thoughts and feelings that took place during the research process.

All interviews followed a semi-structured style with specific questions and probes if and when they were needed. For Merve, specific questions focused on his experiences and the influences on his learning about sustainability, his experiences in teaching others about ecoforestry and sustainability practices, and finally his vision of education for the future. Over-all the interviews were informal, allowing for easy conversation to flow. When I felt it was necessary I would paraphrase to test if my interpretation or understanding were correct. At age 94 I found Merve very lucid and energized by the topics we were delving into. Often I was amazed by the rapid passage of time during our conversations because I was taken, in my mind, to thrilling places, times, and events through Merve’s vivid recollection of stories.

Research Credibility

The design and process of this research reflects validity and reliability in several ways. As noted above a generous amount of time for interviewing was given to collect a rich and thorough set of stories of lived experience. This broad data set allowed me, during the narrative
analysis stage, to identify patterns and key ideas from a variety of different stories, thus enhancing the reliability of emerging themes in the research. To reduce researcher bias I considered carefully my potential bias and how I could minimize the effect. My findings were thoroughly discussed with my participant to see if there was agreement and I made modifications so that I was accurately representing his meanings and ways of thinking. To further ensure reliability and validity of emerging themes my thesis supervisor, Dr. Shapiro, was given the transcripts and my narrative analysis so that she could independently assess emerging themes. After extensive review and discussion Dr. Shapiro provided me with invaluable feedback on the themes I had identified, acknowledging their validity. In addition, she helped me see certain themes that I was blind to and encouraged me to see in deeper ways. I endeavoured to phrase all description as closely as possible to the participant’s actual account and my field notes.

Ethical Considerations

Prior to the interview my participant was asked to give informed consent. A pseudonym was not used since my participant gave written consent to use his real identity, and this contributes significantly to the value of the research. To the best of my ability I honoured the meaning-making the participant presented throughout the research and I was attentive to not include any sensitive information in the thesis document. At no time was deception used in this research.

Data Analysis

Narrative analysis of the interview data began with listening to and transcribing the interviews. I listened for what was being said in the conversation rather than placing the participant into a particular paradigm. In this way, I hoped to honour the meaning of the life
experience with its idiosyncrasies and particular complexity. The result of the narrative analysis became an, “explanation that is retrospective, having linked past events together to account for how a final outcome might have come about” (Polkinghorne, 1995, p.16). In essence the analysis allowed me to select key elements of lived experience and weave them into the stories of how Merve arrived at his philosophy of sustainability education, how he has practiced it in the past and present, how he has influenced two educators’ knowledge and practice, and how he envisions environmental education in the future.

I used Dollard’s criteria for judging a life history (1935, cited by Polkinghorne, 1995), and Clandinin and Connelly’s (2000) three-dimensional inquiry space as guides to develop the stories. Using Dollard’s work as a guide, I attended to the contextual features of social environment, cultural values, social rules, and language that gave specific meanings to events, and thoughts so that their contributions to the story could be understood. I also focused on significant people, relationships, and how these people played a role in affecting Merve’s actions, goals and thinking. As far as was possible, I concentrated on Merve’s decisions and actions; his meanings and understandings, plans, purposes, influences, motivations, interests, inner struggles, and valuing. To help ensure that Merve’s decisions and actions were understandable, I carefully considered the historical continuity of the people and places remembered. I focused on details that presented Merve as a unique individual in a particular situation dealing with issues in a personal manner. I recognized that the stories were my interpretation of Merve’s thoughts within a series of events, actions, and outcomes. As narrative inquirer, I retrospectively viewed the data elements in order to link them into a chronological series of happenings that led to a deeper understanding of Merve’s lived experience.
Clandinin and Connelly (2000) use the metaphor of 3 dimensional inquiry space to help explain the directions or avenues taken in a narrative inquiry. The concepts of time, personal versus social meanings, and place were important in the narrative analysis. While I focused my efforts on what my participant communicated to me, my field notes and journaling gave me the opportunity to interpret their lived experience and allowed me to reflect on my experience of the research journey. I used the approach of 3 dimensional inquiry space as I examined interview transcripts, my field notes, and journal, to weave richly meaningful stories.

In preparation for writing the stories I examined the transcripts for emerging themes, which included key phrases that interpreted meaning, and patterns of thought and behaviour (see Appendix A for an example). It was also important to note what was not said. My field notes and journal reflections were similarly examined for the confirmation of themes or disconfirmation of my expectations. What followed was a selection of key themes placed in context and linked temporally, spatially, and in terms of Merve’s personal and/or social meanings. It is important to realize that the stories are not simply a third person objective representation of the participants’ actions and thoughts; there is a recognition of the role that I, as researcher, play in interpreting and constructing the stories. The stories created are, “a means of making sense and showing the significance of [thoughts and actions] in context” (Polkinghorne, 1995, p.19). The final draft of my interpretation of Merve’s narrative was fully reviewed with him. The result of our collaboration is Merve’s story, which is found in Chapter Four.

This research was designed to give meaning to the unique features and elements of Merve’s lived experience as he developed a philosophy of sustainability in forestry and sustainability education. As a role model in the community and beyond he has influenced various educators who pass on his teachings to the next generation. The intention of this narrative inquiry
was to bring Merve’s stories of excellence in sustainability education to the foreground so they may be useful to readers by providing them with insight and understanding (Sass, 1992, as cited by Polkinghorne, 1995). Merve’s narrative may offer readers the possibility of understanding other ways of knowing. At best, the stories may contribute to leveraging change in the rationale, application, and implementation of local and provincial curricula. These changes in education could fundamentally alter how we think about and interact with the environment, which will help us envision and subsequently realize a sustainable future society.

*Study Limitations and Delimitations*

The study was delimited to the examination of one individual, ecoforester and educator, Merve Wilkinson’s life experiences as recalled during three interview sessions. The small research sample size (one individual) means that the study’s results cannot be generalized to other people, settings, and times based solely on replication.

An example of a limitation in this study is that the interview process is temporal. The participant was asked to recall stories at one moment in time, that is, during the interviews. It is possible that the stories may not be completely accurate because of the reliance on memory. However, the purpose of this research was not simply to depict Merve’s past as it was but precisely to understand it and make sense of it. The truest understandings and sense making of experience often only come from reflection upon the experience after the fact (Freeman, 2007).
Chapter Four: Merve Wilkinson’s Story

Chapter Four contains the results of my analysis of Merve’s narrative from our extensive interviewing process. In this chapter I attempt to answer, through the presentation of Merve’s story, the main research questions outlined in Chapter One:

1. What is the meaning, structure, and essence of Merve Wilkinson’s lived experience of sustainability learning, thinking, practice, and teaching?

2. How might the interview material best be organized to represent these meanings, structures and essences?

3. What is the essence of Merve Wilkinson’s view of an education for the future?

Merve’s life is a model of sustainability thought and action. His story reveals the essence of his learning experiences, and his understanding of the meaning and structure of sustainability education. To represent the meanings, structures and essences of Merve Wilkinson’s report of his life experiences I have organized his story using three general themes:

Theme One: focuses on the influences on Merve’s education

Theme Two: looks at Merve’s teaching at Wildwood Forest

Theme Three: examines Merve’s view of education for the future.

*Theme One: Influences On Merve Wilkinson’s Education And The Emergence Of His Sustainability Philosophy*

In this part of Merve’s story I highlight specific themes along the unique path of his learning experiences. Like a tree seed that begins to germinate, I commence Merve’s narrative with his first memories of family influence, and his earliest personal experiences interacting with the natural world. Once situated the seed sends outward its roots and leaf shoots, expanding within the soil and atmosphere from which it will receive nourishment and energy: similarly, I
expand Merve’s narrative to include the influences from his community, schooling and university courses, significant people and places, and key political/social events that have helped shape his philosophy. Now fully rooted and having grown strong, the tree has weathered many storms and has basked in the brilliant sun, and so too Merve, as an elder, reflects throughout the narrative on the knowledge, understandings, and values he has learned, and how he has put them into practice.

Features of Merve’s Early Learning and Family Influences

*Early personal experiences creating strong personal bonds with animals and deep insight into animal nature.*

From the time Merve was a very young child he was exposed to the natural world in all facets of his life. Since his parents “both loved the out of doors”, they purposefully settled on a piece of property that was located in a forested area where there was “uncut timber all around them ... a lot of activity in the way of wildlife … a fairly good sizeable piece of land where they could do some farming”, and gave the family “privacy”.

In his very early years Merve was intent on having his own personal experiences in his natural environment and learned to have no fear of it. In fact, he “used to play with snakes” and he “used to wrap them around [his] neck or wrists.” Fortunately, Vancouver Island does not have poisonous snakes. Merve recognized that after a while the snakes “got to know you! They always crawled to meet you. Rather than scurrying away they would allow me to pick them up”. These acts of playfulness and the enjoyment Merve experienced while interacting with harmless creatures were key influences in the early formation of his connection with the natural world.

Knowledge of animal behaviour stems from Merve’s own early innocent and relatively untutored interactions with animals, in concert with guided learning from his parents. For Merve this knowledge does not only come from “book learning” but more importantly from direct
experience. The natural environment and his parents acted as his early teachers. The values that his parents placed on nature were passed on to Merve during his early direct experiences, as Merve recalls “Mom and dad would frequently say, don’t hurt that frog, you can play with it and be gentle with it.” The adoption of a ‘play and be gentle’ attitude with animals provided Merve with a means to connect with nature on a personal level and experience delight in the process. An example of this is found in the recollection Merve shared about a pet toad that he played with for about three years. Whenever the toad saw Merve coming he hopped towards him; sometimes this would be a substantial distance such as “twelve to thirteen feet”. Merve enthusiastically explained the toad’s behaviour in this way:

He could tell I had a fly. I would catch a fly from the house, put it on my hand, he would see me coming, he would always be watching. I would pick him up, he was fine, and I would take him back to where he liked to live.

There is a rich relationship evident in this story. A bond or ‘friendship’ extended over a substantial period of time had been created between Merve and the toad. Furthermore, Merve gained specific knowledge about animal behaviour through their interactions: Merve provided food that he had come to understand his “pet” toad would like and he helped him back to his favourite spot in the pond, showing that Merve had gained the knowledge of what type of environment his pet toad liked; the toad, on the other hand, does not act in any fearful manner and seems to welcome Merve’s offerings. Merve acknowledged that he, “really loved that toad” and when the toad disappeared one day he experienced a sense of loss and was very upset. Not only was there a strong emotional bond made between Merve and his ‘pet’, but this example also illustrates Merve’s growing sense that there should be no dominance of humankind over nature. Merve seems to have learned that his interactions with animals ought to be in the spirit of being amongst equals.
Not only did Merve show care for and a great deal of knowledge about the toad, he expressed concern over the disappearance of many species in his own neighbourhood. In his current life Merve shows he has gained insight into the possible reasons for these serious changes. He has a unique and useful perspective on certain human initiatives or actions that have altered the environment to the detriment of other animal life.

We don’t have toads here any longer. We have altered the environment and I haven’t seen a toad in years. […] We introduced cats and dogs. A dog of course will play with a toad, not intending to kill it but they treat them too rough […] Dogs and cats have a keen sense of smell and they will detect various animals like snakes, frogs, mice, and young hatchlings. They have different interests and would then have a wide range of animals they would destroy. You can train a dog [to have a soft mouth] but a cat is much more difficult. I had to get rid of a cat that attacked humming birds. There was a line I had to draw. […] There are a lot of species we don’t have anymore. They’re here, not extinct yet, but they’re on the way … we have altered the environment so badly. That is what does it.

From the values he has developed regarding wildlife Merve strongly believes that, “we can be responsible for the actions of our [dogs and cats] so they don’t needlessly destroy wildlife.” His early joys interacting with snakes and his pet toad, as well as, his later experiences with his pet dogs and cats have been translated into recommendations and heartfelt views about ways to live with animals which are based on natural laws that he has personally experienced.

Very early, very personal experiences of physical and emotional interactions with the environment – almost resisting intervention by adults.

A further illustration of how Merve’s personal experience has helped set the stage for his deep understanding of animal behaviour is a story he has great pleasure in retelling and audiences enjoy hearing. This story beautifully demonstrates how Merve’s natural curiosity and wonderment lead him to engage in a playful game of hide-and-seek with cougar kittens. Innocent
of any possible danger, young Merve became absorbed in the game that was the medium of his learning. What is interesting about this passage (below) is the activity of playing a game with animals opened Merve up to see relationships and similarities in behaviour and intelligence between himself and wild animals at an early age. In the following conversation, he reflects over his years of learning, which have demonstrated to him that wild animals are capable of reason, in some ways like humans.

Merve – When I was five or six … there was a big log they had in the backyard they had dragged in for firewood. I was playing hide-and-seek with cougar kittens around it ... We were having a lot of fun and my mom came out yelling like a banshee and scared the cougars and they were gone and I was so mad! Now, I know that I was playing with four of them … But I only noticed the one. I would see one head up so I would run to one end of the log and of course it would be gone and then the same thing would happen at the other end. Oh, I was mad at my mom over that one. I couldn’t actually see the mother cat. Usually the cougar’s tail would be twitching. The kittens were distracted from playing with her tail because they were busy playing with me. She was just trying to have a nap on a big rock on a lovely spot where she was sunbathing. I really didn’t know what danger I was in. The next day I nearly got lost in the woods trying to find the kittens I was playing with.

Shelley – She was not aware of you playing with her kittens?

Merve – Oh, she must have been. There was no way she couldn’t have been. But because I was young and we were all playing together, and she was having a nice little relax, she would not want to complicate the situation (Merve explained that he understands animals tend to have a simpler view and memory of a situation than most humans) or as much as we do, we have a larger capacity to retain information. Animals are capable of reason, and they aren’t dumb … they aren’t dumb! They know their way of life and the things they should know … need to know very well, and just the same as we do.
Development of a “balanced view of wildlife.”

Merve characterized the early development of his views of wildlife as “balanced,” meaning he learned that his everyday actions needed to be oriented toward maintaining the natural balance of species populations and preserving their habitat, any actions that disturbed this balance were deemed unacceptable. As a youngster his own curiosity initiated interactions and discoveries of the natural world. As Merve grew older, modeling and direct guidance provided by his parents further developed his views. Merve described a number of early instances that nurtured his careful thinking about taking from nature, but having to have a purpose and good reason for doing so (see p. 52, block quotation for an example). This idea reoccurs in his later years when he applies it to the practice of his ecoforestry. Merve emphasized that this idea was constantly on his mind, and that he would always ask the question: “What would happen in the future if you did such and such, was this practice sustainable?” Merve learned early on that it was important to think about and work out the possible ramifications of his actions since those actions might set in motion destructive events that would offset the balance in nature (see example p. 68, paragraph one). Later in this chapter of the thesis I explain how his social interactions within the community he lived actually strengthened this idea of thinking many years into the future and imagining reasoned consequences; in other words, he developed a propensity for a long-range vision.

Allowing and valuing parental and other influences in early adolescence.

According to Merve, his parents were intimately connected to the environment they called home. They understood that sustaining their livelihood was intertwined with sustaining nature’s balance. In their own way, they helped guide their son to understand the relationships between humans and nature. Merve embraced many of his parents’ values about nature because
he found they rang true within his own experience. ‘Take no more than you need’ was one of the lessons his parents taught and it seems to have been a thoroughly reasoned mantra for Merve starting at a young age. Alongside his growing appreciation of wildlife is the understanding that he and his fellow human beings have a responsibility to maintain the integrity of wildlife in its different forms so that together they may coexist in a world of abundance.

So I grew up with a very balanced idea of wildlife – that you did use some for meat and for other purposes. You didn’t say, no, no you can’t shoot anything, because there was a lot of it at that time. But … you don’t over shoot, and you don’t shoot for the fun of it. You don’t just shoot something because it is there to shoot … You can be quite happy to shoot a grouse for dinner, and there are another half a dozen of them between you and your home. You wouldn’t shoot an extra one when you only needed one. Because you only shot one or two at any given time, there were lots. You just didn’t over shoot. Dad always stressed that. My mom was a dead shot … she would scare the hawks away because they were bad for poultry. She very seldom wanted to shoot a hawk. But poultry was how she was making a living so she would get out her six shooter and bang, bang, bang, bang and the hawk would get the hell out and wouldn’t come back!

*Self-discipline and conservation.*

By the relatively young age of twelve Merve seems to have established a strong love, respect, and curiosity for the natural world. He describes his understanding of relationships between himself and nature that support conservation and the self-discipline required of him to honour these relationships. A wonderful example of this is Merve’s description of how he lovingly and respectfully gathered bird eggs for his collection without disrupting natural laws that he had learned from his father who had had a bird egg collection in his youth:

I had an egg collection when I was about twelve. I had about 58 species of birds. I did this without disturbing the nest itself. Without chasing the bird away. You
waited and you tried to find them when they were starting to build the nest, and you waited until they would lay one or two eggs usually ... she would lay up to four eggs, but she would not miss any. But never take the first one. You never took the first one ... The nest would be deserted if the first egg were taken … Conservation taught that you took one egg and no more!

*Family influences on the development of a critical perspective on issues and on persistence in asserting values.*

Other than helping Merve develop a consciousness of the natural world and how to live in it, his family influenced him in shaping his ability to think critically and communicate alternative views. “I came from a family of rebels”, announced Merve proudly, “that were very critical of governments, and other forms of autocracy, and were very vocal about it.” He explained that he learned from them how, “to challenge and question, and form your own opinions.” Merve talked about feeling compelled to challenge authority when he thought an “innovation was bad or if [he] thought it was not justified.” Whether expressing his opinions respectfully through letter writing or verbal communication Merve recognized that government officials “can’t know everything, [they] can’t be masters of everything. You’ve got to give them a break! Let them know about it.” Merve would consider that he had accomplished something if the government’s response was positive but he would not be easily turned away if it were negative. In fact he states, “If they respond negatively, well than hit them again, and hit them harder!” Essentially his family taught him how to be a citizen who intentionally contributed to supporting a truly democratic and sustainable society.
Features of Merve’s Formal Education and Community Influences

Values development – valuing formal studies with excellent teachers led to his identification of his own development of teaching skills.

Nature education came from a diverse source of individuals including Merve’s teachers from his correspondence courses from grade three to twelve. He valued correspondence school education not just because it allowed him to do the lessons in his favourite environment, the forest ecosystem, but also because of the approach and interests of his teachers.

The courses were excellent! And the staff that managed it, that ran it, they were on the island. They were really interested in nature. They encouraged you in every way to write stories about wildlife, and to tell them what you’d seen, and if you got the wrong name, they’d correct it for you. And this was all extra-curricular, you see. They would give me several examples of what it could be. They were very helpful in giving me a broad picture of nature … they were just magnificent teachers! … They encouraged you to be observant so I learned at quite a young age that these trees, plants, and flowers were really beautiful things! And they were there for my enjoyment … but don’t destroy!

Merve’s formal education seems to fit well with his eagerness to learn about the natural world since his teachers encouraged him to develop skills in observation and writing stories about what he experienced in nature and to develop a deeper aesthetic appreciation for it. Merve connects his feelings of joy with his feelings of being part of nature; the shear existence of nature with all its beauty thrills him. His schooling seems to have stimulated and reinforced this view.

Merve’s insatiable thirst for knowledge combined with his teachers who facilitated his search to find answers spurred Merve to develop research skills. If he asked a question of his teachers it took nearly a week to receive a reply because there was no daily mail delivery. Merve recalls that,
My teachers were awfully good about pointing out books that were available in the local library where I could find answers. When I’d go to town with Mom and Dad to shop and so on, I’d head for the library, so you learned to do your own researching.

The research skills he developed during his correspondence school program have served Merve well. Through the use of these skills he was able to determine the validity of the information he was seeking or to verify the accuracy of a source or reference, which aided him in his pursuit of truth. Merve commented, “You don’t just quote something without checking if it is true. This is a way of not propagating misinformation and even lies.” His research skills also play a role in the development of his abilities as a teacher as will be discussed in Theme Two of his narrative.

**Concern for and caution of “needless destruction.”**

Another key value that emerged from his formal and informal schooling was that one must not destroy the environment. Merve often expresses real sadness at destructive, needless killing of animals and plants. When Merve would accompany his mom on a visit to a neighbouring farmer’s family, he would go help the farmer who was “well oriented towards the nature of the environment [he] lived in” and the farmer would tell him and show him things. For instance, Merve recalls that the farmer would caution him about the needless destruction of beneficial life forms when he would point out, “That insect is not bad, that insect is good … so don’t kill it!” At that time in society it was perfectly normal for a member of the community to feel a ‘duty’ to give young Merve advice of a similar nature, and this would often be a topic of conversation at home. Merve recalled his parents would say, “Now that is wise, did you listen to them?” In his community it seems evident that parents were not the only ones charged with raising their young, it was a community effort.
Along the same vein, Merve’s father played a significant role in teaching him how to “hunt properly” at the age of twelve or thirteen. This entailed a major lesson on conservation values, doing as little harm as possible, and not being wasteful in the quest of getting meat for dinner.

He made sure that I was not going to be a rat-a-tat guy, he only gave me five shells. I was suppose to bring something back after those five shots. … After a while, I’d come back and say, ‘look dad I got a grouse and I’ve only used four.’ Now that meant you were careful about what you took a shot at, you didn’t make any cripples, you made sure your aim was right on target.

Merve went on to explain that you didn’t have to shoot at the first one you saw, especially if it were an awkward shot. He stressed that a good hunter’s training included the understanding that there were specific seasons that you could ethically hunt, and certainly not when the animals were trying to raise their families. Merve pointed out that this also made sense in terms of sustaining the species’ populations and not having an adverse impact on the health of ecosystems.

Influences on Merve’s development of the view that “If you destroy the environment you have nothing.”

Growing up in the country with generations of country-oriented people has strongly contributed to what Merve calls his natural aversion for destruction. He recounts that,

I used to get very irate when I saw somebody else breaking something down or pulling something up that wasn’t necessary and so on. And you would gradually learn that there were certain weeds and thistles, yes, you would pull them out because you wouldn’t want too many of them but you wouldn’t pull all of them!

Merve tries to live this value of not needlessly destroying or harming, and has applied it to his everyday life and beyond. For example, he has come to believe that, “each person should
have their own styling as to how they want to live their own lives ... except where it conflicts badly with somebody else or it causes harm to somebody else.” When asked if the same exemption applied to harming the natural environment, Merve replied, “Oh definitely, definitely do not destroy your environment. That is the key to it all. If you destroy your environment you have nothing!” On several occasions, Merve discussed this theme that the natural environment is of paramount importance. It appears to be a fundamental concept in Merve’s thinking. Introduced early in his life and reinforced within his community, it has become thoroughly entrenched in his philosophy.

*Learning values through stories: Family and community elders.*

Within the community Merve was exposed to a vibrant social life, which brought him in contact with a wide variety of adults who were key sources of historical knowledge and held an assortment of opinions on issues of the day. At the community’s Saturday night parties Merve would often find himself listening to the stories of local and family history. If Merve wound up with his Grandpa he would hear stories about where Grandpa came from and how the family came to British Columbia instead of Nova Scotia because of concerns about the effects of the coal mining industry on their health and the health of the environment. Merve recalls that the old gentlemen and their wives who attended these socials were wise and delightful people. They would also tell their stories to Merve expressing how happy they were to be in a country with plenty of freedom to start a new idea and put it into practice, and he “would soak them up.” Upon reflection Merve saw storytelling as a wonderful way for him to learn about both the local and his family’s history. Storytelling engaged him as listener because of the teller’s “personal touch”, and after hearing the stories over again but from different people he was able to discern variations in their perspectives. This did not trouble Merve; instead, he put all the stories together
and blended the opinions “so [he] ended up with a very balanced picture.” This example demonstrates several critical emerging features of Merve’s education; first, he indicates an appreciation that more than one perspective usually accompanies an issue, idea or concept; second, he is cognizant of how information can be engagingly conveyed through storytelling; and third, he has great respect for other’s knowledge and insights as crucial in his own development.

Attraction to open and informed minds influenced Merve’s career choice

Building onto the previously mentioned three features Merve grew to enjoy communicating “with people who had a good store of knowledge of what they were talking about”. People who “were well read … they read a lot of good literature, and they didn’t read just one type of literature, they read both sides.” In this sense he shows that he greatly valued role models who had a grasp on the many sides of an issue and were able to communicate the big picture. Early on Merve found role models in his immediate family, many of the country oriented people within his community, and his correspondence school teachers. All of these people had Merve’s attention at one time or another because they had knowledge and understandings of the environment that fascinated him. In other words they shared their ecological wisdom and consciousness with him. Later on in his late twenties, in 1939, Merve enrolled with his wife in a very practical course in Rural Youth Training at the University of British Columbia (UBC). It was then that Merve met one of his greatest mentors, Dr. Paul Boving. The education he received, and the development of a peer relationship with Dr. Boving were pivotal in Merve’s emerging sustainability philosophy, especially as it applied to ecoforestry. Merve recalled the story of how a simple, insightful question from his professor triggered his career choice:
Really I can thank Dr. Paul Boving. He was at UBC for years, and was a very wonderful educator. He had taught forestry in his own country, and in Norway and Denmark. ... I was interested in the agriculture because I was not sure at that time what I was going to do. I had something in mind in the way of forestry but I had no idea of what. … He asked everybody, ‘What kind of property do you have?’ So you’d fit his course to suit [your needs] … He went alphabetically so I was one of the last ones. I said, ‘I’ve got trees,’ and he said, ‘Big trees?’ And I said, ‘Yes, big trees, uncut.’ [He said] ‘It’s forestry you should be taking but keep up the agriculture. Trees are just big plants, they’re over-sized plants, a lot of the principles are the same.’ So the next thing I knew, three or four days later he put the finger on me again to stay behind after class, and he said he had just got, from his alma mater at Guttenberg outside of Stockholm … the latest forestry course, and he said it was excellent. I couldn’t afford to go there unfortunately. He said, ‘You’re romping through agriculture because you grew up in an agricultural area – it’s a breeze for you. Do you think you can do a bit of forestry on one side of your desk and agriculture on the other side?’ He said, ‘I can do a little translating of what is necessary.’ I said, ‘Do you really mean that?’ He said, ‘Yes, I do. I’m really interested.’ So that is how I got started in forestry, really.

Merve values qualities in his mentors, qualities he seeks to develop in himself.

Dr. Boving was a key influence in Merve’s early adult years and the development of his philosophy of being an excellent ecoforester. The type of forestry that Merve studied while at UBC was selective forestry which was being practiced in Sweden and other Scandinavian countries. It was based on both modern scientific understandings of forest ecosystems and historically tried and true forestry practices. Dr. Boving made a few journeys to Merve’s forest, Wildwood, on Vancouver Island to help plan and lay out some of the road systems. Merve explained how they worked together, “I was doing it but I was with him, and of course it was his road really but he explained each time, why! Why this bend was there and not here, and so on
and so forth.” Even though Dr. Boving carried the role of mentor Merve was not a passive learner. On the contrary he expressed his own ideas and his mentor would encourage him with a response like, “Now that sounds great! Explain a little further.” Both men would then get into a discussion about how you would wind-up down the road. Merve summarized how Paul Boving would invite his students to think responsibly when entertaining new ideas:

He was very encouraging, very encouraging of initiative. If you had a better idea, use it! This is what the book says but if you can improve upon the book then do so. But have a reason for it, don’t just think you can barge in and change everything without a good reason!

This example illustrates how Dr. Boving likely influenced Merve’s thinking; bolstering Merve’s value for questioning an action and reasoning out how alternative actions can have different future impacts on the forest. It also speaks to the value of book knowledge; knowledge that contains certain truths of the day and built from the facts, interpretations or perspectives of past knowledge. Wisdom held in knowledge of the past has resonated in Merve’s thoughts especially the wisdom passed on to him from nature-oriented elders in his community. His valuing of past wisdom expanded as he read quality historical fiction, traveled to Europe and met practicing ecoforesters, and formed relationships with a number of North American Aboriginal Elders. Knowing that Merve deemed a healthy environment as paramount, it is reasonable to think that for Merve a good reason to change would mean that environmental health would improve with the application of the new action.

*Qualities Merve admires in an authentic teacher.*

Merve described what Paul Boving had in terms of a set of rare characteristics as a person and teacher that raised him above the rest:
He had so many little characteristics that marked him out as ... one of those individuals that are rare. He had the ability to explain something, no matter what it was, and in a form that you could understand. He put it so simply that you instantly grasped what he was talking about. Once he had you on the theme it followed right along with the same very natural sequencing. He also had a tremendous sense of humour, and would quote poetry. And very frequently, if the class was feeling a little bit tired, we were working at pretty high pressure in this course, he’d put the book down and he would recite a poem. He was very, very good at it, and usually it was a funny one. And that would snap you out of it, and then, ok, back to the subject. He loved young people for one thing. He was also musical, and in the evenings ... he would come and form a choir out of the bunch of us. Some of us liked to sing and others liked to listen. So we’d have a singsong. ... There was something for everybody ... the professor liked to walk up and down [the aisles] as he talked. If you had something you wanted to show him then you would show him as he went by. He made things just as easy as he could for people to learn ... He was completely upbeat. The old fellow was 94 or 95 when he died. He lived on the Sunshine Coast for the last of his lifetime. I happened to meet a woman who had been his nurse and she was telling me about Dr. Boving. She said, right up to a few minutes before he died he was telling a joke. I can see that. He had a tremendous sense of humour.

Mind you, he also got you working. You didn’t want to let him down. So you did the work. You worked hard, to make sure that he had gotten over to you. It is a two way street. With those kind of teachers it’s a two way street. They’re trying to get something over to you in the way of education, and you’re trying to not let them down, so it’s a two way street. But he was just a delightful person.

He would start his lecture with his papers out and then as he got into his lectures he started walking up and down the rows. He had done those lectures so often he had them all memorized by heart. At the end somebody could ask a question or you could interrupt him by just putting your hand up, and ask a question right then. He might go up to his papers and say; let’s see what so and so says, this is
what I think. He would quote somebody that was a real good scholar or in that field.

Through Merve’s accounts, and memories, it is evident that his teacher was very skilled in communicating concepts and ideas clearly, breaking down the complex into simpler more comprehendible bits and then *magically* reconnecting the bits into a whole, a whole that Merve, as student, could “instantly grasp”. It seems apparent that Dr. Boving had a very good understanding of his students pre-knowledge and how to bridge that knowledge with new learning. The axiom; discovery favours the prepared mind, may be playing out in this learning situation. Merve has had a great deal of exposure to learning about the natural world and agriculture so his knowledge and understandings may have primed his mind to be receptive to the new learning about agriculture and the practice of selective forestry. It is evident that Merve respects Dr. Boving as one who holds genuine knowledge and one who enthusiastically and clearly shares it with his students as they pose questions and try to process their new learning. From Merve’s remembrance it is apparent that Dr. Boving had some very engaging attributes that drew Merve to admire him, as well, he modeled a strong work ethic, and in turn he had high expectations for student achievement. Merve’s comments regarding his former teacher and mentor are a wonderful representation of his valuing of excellent teaching and valuing Paul Boving as a good person.

Merve holds a high regard for morality, and truthfulness. These qualities, in his mind, were indicative of a person with good character. The ‘old-timers’ in his community often acted as his role models for these traits. Merve remembers that the elders would speak out when there was a twisting of the truth, and point out the fabrication in a tactful manner such as, “Aren’t you stretching it quite a bit?” or “I don’t quite agree with you but I see your point and it has validity but now how is it going to work out for me, and how is it going to work out for him, and work
out for you?” What would result was a discussion between four or five people, “thrashing an idea out, all on a very amicable basis. Neither one accused the other of being a liar. Neither one accused the other of being a crook but they were discussing a point, and that point had quite a sharp needle end.” Through role models Merve began to see the value of open discussions amongst equals as a means of sharing issues and knowledge in a non-adversarial way that could lead to agreement. Merve embodied this strategy in his interactions with family, other social situations, and as he became a teacher and advocate for sustainable forestry.

Features of Merve’s Education in his Middle to Later Adult Years

Equipped with the best practices of selective forestry from Dr. Boving’s teachings at UBC, and his strong values for the environment already nurtured in his youth, Merve embarked on a lifetime practice of ‘sustainable’ forestry at Wildwood. His philosophy of sustainability continued to undergo change at this stage of his life as a variety of new sources of knowledge and insight were brought into his realm of experience. Merve’s keen sense of observation, his passion for history, and his interest in comparing and contrasting cultural knowledge lead to experiences at home and abroad that would validate or expand his thinking and actions. Furthermore, the changing political milieu contributed to reshaping his views and influencing his philosophical outlook.

Long-term thinking and planning are key features of Merve’s sustainability philosophy.

Merve started out in selective forestry with the philosophy that “you stayed within your means … and you did not destroy the environment that you had.” His long-term plan for the forest integrated the economic principles of simple interest investment with environmental conservation. He described it this way:
The principle was the volume of wood you started with plus the land it grows on. So, you would not reduce the land it grew on by clearing or something of that nature. You held that intact. You wouldn’t cut above the actual growth rate on that land. Anything up to that was ok. I kept a little margin as well. I kept an eight to nine percent margin, sometimes ten percent.

Through careful observation and calculations Merve was able to determine the natural annual growth rate of the forest. This growth rate he considered as the interest. It was this interest that would be the source of his income and the basis for a sustained healthy forest. He got to know his land and forest intimately. He made sure that the volume of wood in each cut was less than the annual growth rate to keep the risk low of doing any harm to the intact forest. But at the same time he maintained balance and diversity in the forest; he provided a “number of, and range of products” rather than focusing on just one, and he did things to discourage the forest from becoming “too dense” so that enough light was available for the “maximum growth rate” to be achieved. In addition, he applied his value of the principle of diversity to his own marketable skills. Since his forest operation was not quite big enough to be financially sustainable Merve shared his working time between forestry and jobs that required his practical skills in stone and woodworking. According to Merve this kind of forestry afforded him a good “quality of life and health”, a sense of “harmony” with self, family, and nature. He recalls that the atmosphere at home was “positive and relaxed.” In the evenings he would have free time to do the things his children would like to do together, to interact with friends, and to keep up on a variety of interests. In stark contrast to his experiences working in a pulp mill at Powell River near the end of the 1930s this style of work had great advantages over being employed by industry, “where you would not know if you had your job the next day.”

Merve’s resolve to keep his long-term plan for his forest never wavered. In the 1950s a reputable gentlemen who was buying timber for a large company offered him a certified cheque
for $35,000, a tremendous amount of money in those days, to clear-cut his property. With a determined look on his face as if he were reliving the moment Merve revealed what was said in their conversation:

‘No,’ I said, ‘that’s not my plan. What do I do after I’ve cut all those trees?’ And he said, ‘You’re a smart man!’ … The thing is that my wife … said, ‘You turned down $35,000?’ I said, ‘$35,000, then what? Over the next few years we’ll take more than $35,000 off and we’ll still have trees!’

What some saw as an opportunity Merve argued with stern conviction that it would be the loss of an invaluable portion of the environment: “a certified cheque for $35,000, it looks big, but even putting it out to investment it still would not replace the value of the forest. You couldn’t get an interest high enough!” This was a pivotal point in realizing the strength of his values. Tempted to reverse his course, Merve flatly declined and tenaciously kept to his vision. Indeed, in 2008 at the age of 95 Merve is living comfortably at Wildwood, and still has a healthy intact forest with more timber than when he started selective forestry.

_A sense of Just Practice evolves through Merve’s exposure to European culture and the forestry industry._

Merve’s philosophy of sustainability and in particular his ideas of what might be termed _just practice_ were profoundly influenced by his experiences while visiting Europe twice in the 1960s. When asked what the term just practice might mean to him, Merve offered two phrases, “use but don’t abuse” and “share with humans and ecosystems but don’t exploit.” He expanded his definition, saying that it was like conducting one’s affairs in a sensible and useful way without destroying the universe or any part, leaving something constructive and of value. In France, he was quite taken by the beauty of the Ardens, a forest that had been logged for over 400 years. It was a revelation for Merve to personally see and come to understand the
management of a forest using sustainable practices on such a large scale. Through an interpreter Merve eagerly asked questions of a crew of National Foresters and found that they were equally enthusiastic about their type of selective forestry. Merve recalled that they spoke with great pride about their work. They could see the positive results of selective forestry policies and gave Merve the impression that they considered the Ardens to be their forest. Here was an exemplar of just practice where the Ardens had been exceedingly well managed as far back as the time of King Louis the XIV. Merve learned that their forestry system was built on the rationalized view that if you cut more than a certain amount of trees then you would destroy the forest resulting in its elimination as a revenue generating resource and as an exemplar of aesthetic national pride. In modern times this view has evolved to consider a sustainable forest as part of a steady smooth flowing economy, and an asset for the tourist industry that attracts visitors each year to experience the delights of the nation’s standing forests. Thus the forest’s value was far greater in a healthy and intact state – a view Merve strongly supported. In thinking back, Merve attributed part of the success of the system to the application of true costing the timber so that the regeneration and health of the forest was included in the economics of the forest industry of France:

Now that is the sort of system we should have here! …. The cost of rebuilding that forest has been taken care of in the initial price. The chap I was talking to said, we don’t care what the purpose is of the wood … [but] it has got to be manufactured in France! With prices set like that we know the cost covering the replacement of the forest, the harvesting of the trees, it has all been taken care of. They view the forest as a national asset! It is very important. It is part of the wealth of France.

In Switzerland, Merve was delighted to observe a similar kind of sustainable forestry. He referred to a region called the Five Little Valleys where the allowable timber cut from those
valleys went to the local mill. Merve was impressed with the economic and social sustainability thinking and policy implementation illustrated by a mill that “kept 35 men employed full time and provided some 25 other factories with their raw material to turn out furniture, musical instruments, and what have you.” What permitted the practice to be economically sustainable was clear to Merve; “It’s got to be processed” in the country. From his conversations with a Swiss forester he came to realize that this practice was hundreds of years old. Merve also observed the positive social conditions and recalled that he never saw anyone poor or obnoxious, just happy, healthy, and singing. For the second time he personally experienced what he considered just practice working over a long period of time with a constructive environmental and social outcome.

To further root the idea that sustainable forestry could work well and in a variety of situations, Merve was able, with his forestry knowledge and a little luck, to locate a crew of urban foresters working at a site in the city of Zeist in Holland. There he had the unique experience of witnessing a mature city tree being harvested and a young tree of a different species planted all in the time frame of a day. Through this process Merve learned that the city’s urban forest could be sustained with the same mix of tree species native to the region, with the added bonus that the city would gain from the sale of the trees as a renewable natural resource. Even within a dense population it seemed possible to have “the best of both worlds.” The key was that we needed to be aware that sustainable practice was possible; in fact, it was thriving in certain parts of Europe.

Merve’s critical thinking skills and his attraction to “people who know what they are talking about” have strongly contributed to the development of his philosophy.

Merve had rejected clear-cutting practices long ago when he was a teen and saw the logging companies “harvest an area as fast as possible” leaving a huge amount of waste in the
logging slash. At home during discussions, Merve would hear his dad speak about this forestry practice as “crazy!” Visitors would assert that they could have become millionaires if they had had the rights to the trees that were left behind in the logging slash. But at that time Merve did not have a vision of how exactly forestry could be done differently. He just knew that it was wrong for people to destroy the forest environment but he was not aware of an alternative practice. Then a major change in his thinking occurred when he studied forestry under Dr. Boving. This educational experience gave him “assurance that selective forestry was the way to go.” From then on he felt no hesitation since he was convinced that he had the historical and scientific knowledge to back it up. Merve’s European excursion gave him the unique opportunity to compare, on a personal level, the North American way of thinking and practicing forestry with the alternative praxis found in several European countries. In comparing the two systems it became glaringly obvious to Merve that the system back home lacked fundamental wisdom to the point that “it was ridiculous!” He had understood early on that North Americans didn’t know everything about forestry but through his European experience it became clear to Merve that we were a poorer society if we did not explore the knowledge, skills and attitudes evident in other cultures, especially around sustainability. He embraced the idea that other cultures would have many things to teach him and his fellow North Americans. It was about this time upon returning home that Merve started to teach what he knew about sustainability, especially as it was practiced in forestry.

*Merve explains how ‘memory’, in terms of collective environmental wisdom, is critical to creating sustainability and an enlightened long-range vision.*

The European trips opened Merve to experience lessons that would broaden his thoughts on the value and the key features of an enlightened long-range vision. During his boyhood, he reported being surrounded by rich stories of the past that contributed to his passion for history.
In a serious tone, during one of our conversations, Merve asked, “What happens to people who lose their memory completely?” then answered, “They have no idea of what is happening. If we lose our memory regarding the past – we have no future! Absolutely none.” When Merve spoke of memory he was not referring to what one remembers about yesterday’s breakfast or even what one was doing ten years in the past. He was talking about keeping alive the knowledge of previous generations and ancient cultures that brought forth fundamental truths about our relationships with nature, and practical skills that would enhance survival in the environment. This long-term memory was a guide to be used when contemplating and making choices for the future. Merve certainly wanted a future for his forest so he began with a long-term vision of maintaining its integrity while making a living wage from its quality products. His plan honoured the long history and knowledge of selective forestry practices that modeled sustaining nature rather than rapidly consuming a huge portion of a resource to gain fast money and in the process literally destroying it.

_Merve’s drive to learn takes him to other countries where he reports being influenced by encounters with people who demonstrate excellence in sustainable practice._

During his visits to Europe Merve was introduced to a variety of people who “had done very well, and could see a long-term vision … But they had the same idea: that you don’t destroy.” Another key idea they shared was their concern for the welfare of the world or social justice, and they used it as a guiding value for their long-range vision. Merve’s appreciation for this way of thinking grew with his conversations and outings with his new found mentors.

One of these mentors was Arthur Dower who was the Chairman of the National Parks Board in the United Kingdom. Merve described Arthur as a “very, very astute individual” who was “down to earth” and showed great “humility.” He had many talents that Merve admired; he was dynamic and went after what he wanted, he was an outspoken but very reasoned thinker.
whose ideas could not be “shot down” which made him a formidable negotiator, and he had a long range vision that served the needs of the general public and the natural environment very well. Merve recalled that Queen Elizabeth II was so proud of Arthur’s accomplishments that she personally “thanked him for what he had done for parks and the people.” Merve could see the result of Arthur’s long-term policy in many of the parks as they walked along the footpaths. Millions had kept to the trail leaving the rest of the environment alone resulting in areas that were very natural. According to Merve the benefit of this was that you could see what the area was like in the past and what it could be like if left to go back to nature again. He discovered “this is the wonderful thing about Europe … they maintain what they have of nature … you can enjoy it, see it, you can photograph it, do what ever you want but don’t walk on it because you’re damaging the environment.” Throughout his travels Merve frequently meets with his familiar theme, “do not destroy”, which has become thoroughly entrenched into his philosophy.

Merve understood that Arthur’s skill as a negotiator enabled The National Trust to obtain many natural and cultural heritage sites with the intention that the properties remained intact in perpetuity. In addition, he saw how Arthur struck a balance between a variety of interests and at the same time fostered sustainability on environmental, economic, and social levels. Arthur’s efforts helped preserve portions of the natural beauty of the nation and a number of cultural heritage sites, offered tourism and opportunities for outdoor recreation, and sustained several agricultural sites as a necessary way of making a living. The recognition of Arthur’s work by heads of state and supported by major institutions like The National Trust fixed Merve’s conviction that natural and cultural history were very important and should be fought for. If it were possible in the United Kingdom to sustain significant areas then it could be possible in Canada and elsewhere.
Interested first, in finding natural solutions to environmental problems.

Curious about how others dealt with insect epidemics, Merve engaged European foresters in conversation about historical infestations. Their insight did not necessarily surprise him as he learned they worked with the ecological setting in order to take care of these situations responsibly:

You just let them run their course. You throw every obstacle you can without mucking up the ecology. You don’t run out with a spray gun or anything of this nature. You just let it run its course. And they’ve found too that their epidemics in history have always run north. It seems to be the ecological story ... But it’s rather interesting that almost all the great plagues of insects that we’ve had have moved north, and far enough north that they die out. Eventually it is too cold for them and they have no more food.

Again Merve encounters the value of understanding, preserving, and applying valid historical knowledge in order to find a natural solution to a problem. With some frustration in his voice he stressed, “This is one big problem with us; we fail to look for something in the way of a natural answer!” Merve learned about the wisdom in recognizing both local and global ecological trends as an effective way of dealing with an insect epidemic, and the value of looking for natural solutions which meant working with nature’s inclinations and being flexible and adaptable.

Merve’s unique approach to problem solving is rooted in practical experience.

In the early 1980s Merve shared his practical knowledge regarding the behaviour of the Pine Beetle with the First Nations’ Teslin Band who live in the Yukon. Merve’s keen sense of observation and years of experience showed him that the building of long straight roads largely assisted the rapid spread of the beetle. He was able to show them, in situ, the ingenious ways
nature worked. Their forest provided several examples of beetles that were drowned by the juicy sap of the young pines, where the reproductive portion could be seen exposed, thus preventing the beetles from successfully laying eggs. Conversely, Merve demonstrated that the older pines had little sap and no significant natural barrier for the beetle to overcome. His counsel to the Teslin Band was rooted in his practical knowledge of nature’s interconnections and implied trends: don’t build straight roads but do selectively harvest older trees and leave the young pines to fend off the intruder in a natural way eliminating the need to use, as Merve calls them, harmful pesticides. A year or two later he heard from a Teslin Band member that the “beetle trick was working” and that they had “cut the beetle problem by at least 25% by not using any spray at all.” Merve was delighted that they found what he had said to them “was very true, that the beetles can’t penetrate the younger trees … they move past, and the tree is safe.”

With this practical experience Merve acknowledges that environments evolve and change over time, which means humans need to be flexible in their expectations of nature. In the case of the Pine Beetle, to try to control or work against the natural trend is not the answer. Merve reasons that if we carry the practical understanding of how a forest naturally recovers and we support these changes then a healthy short-lived crop of deciduous forest will probably prepare the land, free of the Pine Beetle, for the next forest of conifers. Thus a form of sustainability can be achieved if we retain our practical knowledge and if we agree to be adaptable in that we apply knowledge in ways that are not contrary to the trends inherent in nature.

_Merve sees the knowledge and understandings of traditional First Nations cultures as profound sources of education, influence and insight for him._

North American First Nation’s traditional knowledge had an appeal and influence on Merve that would add another dimension to his developing sustainability philosophy. First Nation’s culture was part of his neighbouring community and he found that the Elders had ideas
he shared and some that were new to him. From his early interactions with toads, cougars and other animals, as well as the education he received from ecologically conscious members of his community, Merve embraced a truth that he later found he shared with his First Nations friends. Merve stands by the truth that, “creatures can live with people if people would live with them.” He strongly believes that any creature has a right to be here, and that a harmonious coexistence is possible if people would be knowledgeable about how humans and nonhumans can work together in partnerships that are mutually beneficial. Merve illustrated what he meant in the following passage:

Those creatures can live with people if people would live with them. That is the absolute truth. Too many people see a toad, for instance, in their garden and they take a shovel and kill it. But that toad has every right to be there! And really he is taking care of the mosquitoes and insects for you. You don’t need to buy chemical pesticides ... You know ... you should encourage [natural predators like the toad]. You try to give him a fly or two so he will stay there!

His experiences seemed to have prepared him to appreciate what he called this “wonderful view” from the aboriginal perspective. One feature that had a profound affect on Merve’s thinking was the view that “everything has its spirit, even the mouse has its spirit, and you recognize that. You may want to eat the mouse and that’s ok but you don’t just destroy it. You use it. You don’t destroy unnecessarily.” Merve had embraced the idea of ‘do not destroy unnecessarily’ quite early in his life, however the belief that humans shared a spirit relationship with animals, plants, indeed all things of the earth, was beyond his previous experience and formal education yet it made sense to him. Merve knew that he “was part of the whole big scheme of things” but this added connecting thread – spiritual ecology – helped him to deepen his understanding of a conscious and respectful sharing of the flow of life.
Merve recalled another feature of the traditional First Nation’s worldview that influenced his thinking. In his words he described two elements of what he had been told by Elders about the aboriginal hunting process:

… when you go hunting for meat you say a prayer, of course, that your spirit will be strong enough to capture, or hunt, or kill the animal that you’re for. But you pray for a deer, let us say, you won’t just shoot a bear, because he is meat too! You are out there to get a deer. If you pray for a bear then you wouldn’t shoot a deer. In other words, they don’t hunt or kill irresponsibly! That is really what it means.

The act of prayer sets forth the essential goal in the mind of the hunter. A goal that has been seriously considered so that the hunters are maintaining the balance in nature, in other words the hunters act responsibly to keep proper relationships with the natural world. Merve understands that to pray for the successful hunting of a deer means that the killing of one deer from the environment in order to nourish the tribe will not adversely affect the deer population or the surrounding environment. In sustaining the environmental balance the hunters are acting responsibly. Prayer also seems to act as a motivator in terms of preparing the hunter to be “strong” emotionally, psychologically, and physically for the very special task. The very fact that traditionally aboriginals engaged in this kind of thoughtful prayer and responsible action showed Merve how much respect they gave to the relationships they have with the natural world. Since Merve shared the basic premise of this idea he expressed his deep respect for this type of aboriginal thinking.

During a tree blessing ceremony at Wildwood in the 1980s Merve experienced the Stolo Nations’ understanding of being respectful of nature and treating it as one of your own. He explained in simple terms what he saw and heard the Elder do, “She used a little cedar bough to stroke the tree, then she had a poem … thanking the tree for giving up its spirit so these totem
poles could be carved for the new longhouse at the Stolo Reservation.” Moved by this demonstration of genuine respect Merve revealed to his friend, who was an Elder, that he felt sorry that he hadn’t been as respectful as he should have been to the trees. However the Elder’s response showed him a new way of interpreting his relationship with the trees and his kind of forestry practice:

He said, ‘Oh, you are respectful to the trees!’ He said, ‘You don’t just rush into the trees, into the woods with your power saw. Every tree has been thought about, it’s been weighed in the balance as to which tree you should take, which tree was better than the other trees, as well, and also would give you some product that you need and use. No,’ he said, ‘you have a different blessing.’ He said, ‘It means the same thing to the tree! Look how green your forest is! Look how green those trees are!’ He said, ‘Those are, every one of them, happy trees!’ He said, ‘They’re happy trees! They’re green, they’re lush, they’re enjoying good health, and they’re very glad they are here rather than somewhere else!’

Merve acknowledged that he seemed to have acquired this value of respect naturally; that it was built into the forestry that he had learned. He found the authentic blessing of the trees very interesting; so much so that it stimulated him to reflect on his own forestry practice and how he, in his own way, showed respect for the natural world.

It never occurred to me that way but it is a fact that you don’t just rush in and fall a tree. You give some thought as to why you’re falling that tree, where you’re going to fell it so you don’t damage other trees, and how you’re going to put it down with a minimum of damage to it so you can get the best wood out of it. So you are giving a form of address to the tree.

The ceremony seemed to act as a reminder to participants of the proper relationship they had with nature. For Merve it raised his consciousness to a new level in terms of sharing ideas of an ecological worldview and how this could be practiced.
A great storyteller in his own right Merve found the oral storytelling of traditional aboriginal myths and legends to be fascinating. Whether he was sitting at his kitchen table sipping tea and sharing stories with two Elders or amongst a First Nations’ community circled around a campfire, Merve learned more about their worldviews and what they considered to be the *great truths* of life, especially the truths of how to live a good life with other humans, how nature worked and how to live harmoniously with nature. These experiences had the effect of broadening his perspective and seemed to have moved him toward a more ecocentric way of thinking.

Being a lover of history Merve dug into the historical documents of people like Captain Vancouver and discovered some little known truths of great aboriginals, such as, Chief Wikininish. Merve recalled that Vancouver, in one of his logs, described Chief Wikininish as an “aboriginal statesman who had all the qualities of the finest statesmen in all of Europe.” This was further evidence for Merve that aboriginals were as sophisticated and intelligent as any other people, equal to those of other cultures, and capable of great insight and wisdom.

*Merve expresses distain for those who seek to be wealthy above doing what is right for the environment.*

From a unique vantage point Merve looked back over his more than 60 years associated with the British Columbia forestry industry. What he has witnessed is the deplorable destruction of this resource at the hands of a few. He emphasized “there was a live and let live attitude on the part of the older people that we don’t have today. [Now] it’s me, me, me, and to hell with you! Me!” With utter disdain Merve explained that he sees most people just want to “keep making a fast buck until they run the thing right out then they’ll look for something else that’s going. That is the economic system under which we live.” This focus of society, on the exploitation of natural resources in return for the maximum monetary return is the antithesis of Merve’s
sustainability philosophy. His experience has taught him “you’re not going to get rich by tearing your resources down, you’re only going to get rich by using them wisely.” He admits some people have made millions but at the same time they have largely destroyed the resource. Merve considers few of these people to be useful citizens. In his philosophy, being a useful citizen means you have a solid grasp on how your actions affect the sustainability of the surrounding environment. To Merve the act of destroying a resource like a forest with its complex relationships is senseless because you would ultimately devastate the very systems that sustain life. As he proclaimed earlier, “if you destroy your environment you have nothing … that is the key to it all.”

_Merve’s socio-political beliefs regarding propaganda, standards of morality and truthfulness, and the problems related to the quest for more and more money._

Merve recalled that more than half a century ago “there was a morality in the people themselves, past which they would not go. They just wouldn’t tell a lie. It was a sin and they wouldn’t tell it. Not only that it was socially unacceptable.” However, in Merve’s estimation times have changed; the sin of _telling a lie_ is not felt to be as shattering to one’s being and as a social norm it has lost much of its sting. What has motivated this change is clear in his mind, “it’s our economics, based on the dollar is a curse. … It means you will do anything for that dollar or you’re suppose to do anything for that dollar … be able to sell the product whether it was good, bad or indifferent – sell it!” Merve’s work in the forest industry exposed him, from time to time, to deceptions on the part of an individual or company. He stressed that one needed to be vigilant and not assume fair play. Since he knew the business well he could easily notice when the buyer or his associates would purposely undervalue the volume or grade of his timber load. Once aware of their _game_ Merve would politely yet firmly make it clear as to what level of
morality and truthfulness he expected. The following passage illustrates how he exercised social justice.

I had one case where I sold to a company because they had quite a high price they were offering, I thought, ok I know the tricks so I’ll play them at their own game. They’d still make money on the deal! I knew that short scale and short loads was their motto. So when we sent out the first load, I said to my driver, ‘Don’t let them unload that without scaling it on your truck so I know it came from my place, and it should have my timber mark on it as well.’ So I said, ‘We’ll see what the scale is when you come back. You may not be delivering the next load to the same mill!’ … Well what we had was one beautiful big log absolutely clear that we put on top of a bed of smaller ones … I said [to my driver], ‘This is good training for you, let’s have a look at that [scaling] slip’ … They’d scaled the smaller ones but they hadn’t scaled the big one, just marked it cull … I said, ‘He didn’t scale that big log!’ … I said, ‘We’ll put another load on and we’ll go down to the mill yard. Don’t let them take the chains off or touch the load until I see the office.’ … Of course I had only dealt with the buyer you see they had no idea who I was in the office. So I walked in with the scale slip in my hand. [They said] ‘Oh, good morning, what can I do for you?’ I said, ‘Where is your scaler? I want to talk to him.’ [They said] ‘Oh, well he’s up in the yard.’ I said, ‘Thank you.’ I walked over to him and said, ‘There is a load of logs of mine just over there with that big one sitting on top. I said, I think you have made a slight error. I would like to see you run that scale over again,’ (Merve imitated the embarrassed look on the scaler’s face). We went over to the load. Never a word said, he never said a thing! The big log was put on the scale and it was a number one! Now that was 900 board feet in one log! … So I said, ‘From now on I want the next load scaled the same way, it’s on the truck, or you don’t get any more!’ I said, ‘I don’t have to sell to you.’ … He never said a thing. He even cancelled out the cull and put it on the slip.

Beyond the obvious deception, what was interesting to Merve about this story was the reaction of the scaler to his request to check the measurement. He was shocked that he was found
out but then made no apology for having been part of the deception. Merve interpreted this to mean that the fellow “probably didn’t like having to do what he was doing but he didn’t have the guts enough to jump up and down and scream” about the dishonest way of doing business.

Merve concluded that this company would consciously lie if it could get away with it in order to make more money. Absent from the policies of this company was an understanding of sustainability of the system in terms of paying a fair price so that Merve could sustain his ecoforestry practice and continue to provide quality forestry products. Instead the prevailing idea was the economic bottom line of making as much money for as long as possible. Merve felt that the company was able to maintain the status quo by applying pressure on employees who may fear job loss if they chose to act with a higher moral standard. Furthermore, the company would not want to admit responsibility for any deception since that would scar their business reputation. By appeasing a single customer like Merve the company could continue its unethical practices until such time as enough people understood what they were up to and would take steps to avoid doing business with them.

Usually Merve chose to deal with honest businessmen in the forest industry. He expressed a sense of ease and goodwill in these interactions where there was no suspicion or tension. He and the buyer had confidence that they would treat each other fairly resulting in a pleasant trading experience. To Merve this was the way business ought to occur – with integrity and truthfulness, attributes of just practice.

Through his vast experience as an ecoforester, member of numerous boards and committees, an avid participant in the local, provincial and national political arenas, active citizen, a traveler to European cultures and observer and participant in First Nation’s culture, and a family man, Merve was pleased to have witnessed at times ethical and evenhanded leadership
but it disturbed him greatly that he detected an insidious growth toward speaking half truths or complete lies in the realms of power and business. When asked when he noticed this shift in morality Merve replied, “It changed very sharply after the Second World War, because we adopted Paul Gobbles’ public relations teachings! We put them in all our schools, and put them in all our business transactions,” which includes transactions within certain government institutions. Merve summed up propaganda teachings in what he termed Gobbles’ three commandments; never tell the truth if a lie will do; a lie can be neither proved nor disproved in most cases; and if you repeat the lie often enough you’ll believe it.

Merve strongly believes that dire consequences have resulted from the sweeping application of these three commandments throughout our society. What Merve described as an earlier means of persuasion in the form of an amicable discussion has been seriously corrupted. He refers to this fraudulent means of communication as a “public relations machine” that repeats its partisan message over and over again until the “public is tricked into believing new things” or that “a half truth is made to come off as a real truth.” It has shocked Merve to see how ubiquitous propaganda is used and the consequence that it has largely “replaced real education.” Instead of educating the public through a discourse where all sides of an issue are brought forward we have a perversion of knowledge where people repeat only certain ideas or “lies so it’s in the public’s mind.” Merve points to a technology like television that had great promise as a tool to disseminate truth and knowledge but has become an aid in the perversion of knowledge by providing a medium through which “images are made to look very desirable but in fact they are not.” He also calls attention to inequities in our society, the fact that the people with the most money often have the means to drown other ideas out by the sheer quantity and frequency of their message. In addition, he feels barriers have been set up to stall or prevent one from getting
at the truth. Merve remembers he tried to call a television station to say, “look that’s a lie”, referring to the information broadcast on the program. But he couldn’t get through to a real person instead a machine with a virtual person’s voice greeted him. The combination of all this is disturbing to Merve. He believes it has taken away people’s ability to think for themselves and politely express their thoughts – an inducement for mass hypnosis.

As Merve grew up he was taught to think for himself, to question ideas that didn’t make sense to him, to be honest, open, and humble, to care for and respect the environment and all that lived there, to be responsible and not destroy unnecessarily, to think in terms of a long-term vision keeping close to the great truths from the collective memory of the past, and to honour the significant knowledge of cultures beyond his own. A great many role models assisted him in his educational journey. In turn, Merve has been and continues to be a role model for countless others. From experience he is acutely aware of the powerful impact role models can have on a person. And so he cautions, “as long as we look up to that type of individual [who primarily desires money and power] instead of looking up to people who are really doing [decent] things we’re in trouble … this is our tragedy.”
Theme Two: A Look From The Past To The Present As Merve Describes Stepping Into The Role Of Sustainability Educator

In Theme One, I examined Merve’s reflections on his educational influences during the development of his sustainability philosophy. I now turn my focus toward the narrative of Merve as a teacher of his philosophy and his views on the environmental education he practiced. My analysis in this chapter delves into his life as he stepped onto the education stage accepting his role as a teacher. Initially Merve’s life experiences gave him an education that flowered into a sustainability philosophy and practice but he did not stop there. When given the opportunity he was eager to share his wisdom with people who were curious about his thinking and practice, and he welcomed the possibilities of passing forward to learners of all ages the key features of his sustainability philosophy. Like a flower that bears fruit and disperses its seeds, Merve, as a teacher, embarked on a fruit-bearing and seed sowing period where his understanding of the learning process was applied to educating learners about sustainability in thought and action – seeds of wisdom that he gleaned from his unique education and life experiences. A common thread that weaves through his narrative is how the natural world and naturally occurring incidents in his life have profoundly influenced his thinking, his entrance into teaching, and the development of his teaching philosophy and practice.

Naturally Growing Into The Role Of Teacher

Curiosity initiated Merve’s teaching.

When asked how he started teaching about sustainable forestry Merve replied, “people were curious. They came to see how it was done and why.” The curious were people who had heard about Merve and Wildwood Forest through word-of-mouth or perhaps a newspaper article. His friends saw the uniqueness and importance of his operation and encouraged others to learn
about it. They would not hesitate to speak with their friends who were traveling through the area and invited them to connect Merve because he was doing “something interesting next door, he is an interesting guy, and he’d like to meet you.” Merve of course, was happy to discuss his practice and would have them over for a neighbourly chat and tour of the property. People started coming from the United States almost immediately after the first cut in 1945, then later from other countries where this type of forestry had already been practiced. This delighted Merve because he was able to show and explain the type of forestry he advocated for plus, during discussions, he was able to listen to and access the ideas of others who had practical ecoforestry experience in other regions of the world. His launch into teaching allowed him to continue to share his ideas, to glean new knowledge, and to forge new friendships and connections with like-minded people throughout the world.

Merve’s teaching was often driven by the questions raised by his visitors and in turn his questions of them. One of the most burning questions was why Merve was doing it this way – not the usual North American clear-cut method of forestry. Merve saw this as an excellent opportunity to explain the main principle of his sustainability philosophy, “the point and purpose of the thing; to maintain your forest so that it is constantly there so you have continuous revenue from it which was logical, people could see it.” He became aware of the natural development of his work into something like a teaching laboratory; where people who came to see what he was doing ended up staying a day or more following Merve as he made tree selections and explained his thinking. Even though he had not actively pursued teaching; teaching seemed to come to him.

_The investment analogy._

Questions were often asked about the economic viability of his operation. Merve logically laid out his argument, explaining the stark contrast between an investment in a natural
entity, such as a forest ecosystem, versus the human contrived stock market. The following passage shows how Merve approaches this type of economic inquiry and illustrates that his ideas of sound financial practices are rooted in his naturally developed sense of sound ecological practice:

If you sold those trees and invested it, ok yes, then what are you going to invest in that is better than this? … If I sold all the timber and invested it in the stock market, the stock market goes bust the next day and I’ve lost everything. This is very true, stocks and bonds can go up and down like a yo-yo, and you can be wiped out over night. Whereas, I could not see even if a fire went through it is not going to kill all your trees. A natural fire, it just bounces back like you wouldn’t believe because the potash, the nitrogen, the phosphorus and so on is in the soil and it is just [like] a shot in the arm in the new forest. So I said, I’m far better to invest in here, my little poke, keep it invested here, than I am going and playing around in the stock market. You could wake up in the morning and you’re worthless. You could paper the wall with your stocks and there’s still no use for them.

To Merve a healthy ecosystem means stability and resilience. His teaching enabled him to give a voice to the values of sound ecological practice that could be applied to other areas in life such as economics. He also realized that the greater contact people had with places like Wildwood, where ecological, economic and social sustainability was practiced, the greater the possibility that they would understand the concept of sustainability.

The second wave of interest came from schoolteachers who realized the educational benefits of an “outing” for their students. They asked Merve if he would give a nature/forestry experience for elementary and high school students, an experience they could not provide in a school setting. Merve considered these teachers as progressive in their thinking in that they too could see Wildwood as an effective alternative to classroom learning. This new development
changed the dynamics of Merve’s teaching as he explained he “got into the audience business where you had twenty five to thirty kids.” Merve recalled vividly that “some of them were full of questions, and some were just so awe inspired … they were just wide-eyed in wonderment.” He had noticed a similar reaction when he reflected on times when he had invited his young city friends out to his family’s farm/forest. In one of our conversations Merve smiled as he recalled, “…kids from the city loved to come out …” to plant, harvest, fish, swim, or go horseback riding, “…they were buggy to get out to the country.” The sense of wonder that Merve observed in children was a human characteristic that he realized was central to learning. His awareness of a child’s natural curiosity and enthusiasm for nature thus guided much of his teaching and their learning.

_Focus on how Merve learned how to learn._

In his developing years and into adulthood Merve was surrounded by several friends and family members who, “questioned naturally, they questioned the order of things. It was part of their lifestyle. They weren’t necessarily opposed, they weren’t necessarily destructive, they just criticized.” Merve recalled how their inquiries steered his thinking to how things were connected, what relationships existed and how these things would play out in a future scenario. Merve _naturally_ embraced this kind of critical thinking approach in his own learning and used it to analyse various ideas and actions that he encountered throughout his life. Like his role models he was inclined to wonder about how things were connected and what were the possible consequences of acting on certain ideas. It became second nature for him to ask questions and he encouraged a respectful question and discussion exchange within his family and amongst others in the greater community. Merve also revealed that as “you were moving with this type of person your wealth of experience and knowledge increased.” This proved valuable to him in that the
ideas, anecdotes and unusual bits of knowledge he had picked up were shared with students so that their interest remained high. His exposure to inquiry and critical thinking seems to have laid the foundation for his own learning and this informs his thinking about how others learn. As Merve put it, “… questions stimulate the thought mechanisms in others …” and almost “a limitless number of ideas can come out of this.”

*Learning to become a better communicator.*

Merve’s participation in social and political groups exposed him to the well thought out opinions and views of “a lot of very wise people.” In this setting he could partake in constructive, lively discussions and learned from these *wise* people how to communicate effectively, think on his feet, and be effective in debate. In addition, Merve gave quite a bit of credit to his correspondence course schooling for helping him become a better communicator. Because of the structure of the program if Merve asked a question he had to wait a week for answers from his teachers by mail. This arrangement did not appeal to him – he wanted to know – so with his teachers’ assistance and the availability of the library Merve was able to find the answers by doing his own research. His research skills came in handy later when he scoured the literature for applicable and authentic information that would back statements that he made in his teaching tours or presentations. In this way, Merve surmised he “became sort of a self-trained, self-oriented teacher without realizing it.”

*An interest in history.*

Another dimension of Merve’s learning stemmed from his deep interest in learning about history from others. His early learning experience consisted of listening to the stories of the elders in his community but his interests grew and this caused him to explore historical fiction
sources for new ideas. By reading good historical fiction Merve entered a world that taught him ideas that his lived experience did not. What is more it served up a fascinating and true story.

Years back I did a lot of reading, and not just novels. I used to read historical novels; that was my specialty because I found that in a history [text] book and in a novel of that era there was more in the novel than there was in the history book … and you found very quickly that history books were manipulated and that it was not really the history that took place!

Furthermore, Merve remarked, in a lot of cases “you learned through books not through testimonies or treatises or anything. You learned in a lot of cases when good forestry started in other countries” centuries ago. He was able to get a taste of the knowledge of the past, of what real people had most likely been thinking at that time and what they did that made a difference in the world. Through his natural interest in history Merve was actually able to preserve a collective knowledge of past thinking and practice in other words a collective memory that was lost to many because that knowledge had not been routinely passed on to subsequent generations. In essence, his choices in reading seemed to have strongly contributed to his unique and deepened perspective; an understanding from whence we came and where we were probably going. Merve learned that if he had a good grasp of the lessons from the past and a broad knowledge of the present he would be in a better position to anticipate what the future may hold. Then as a teacher he was able to move comfortably between three lenses: the past, the present, and the plausible future. Merve would use excerpts from his readings in historical fiction to illustrate a point about the origins of sustainable forestry. He turned them into short intriguing stories depicting the beginnings of scientifically and ecologically based forestry. He might retell the narrative of King Louis XIV who initiated sustainable forestry in the Ardens of France or the entrance into forestry of the medieval landowner Esterhazey of Hungary. Visitors on a tour of Wildwood were often
surprised and amazed at these stories. This was one way Merve could use his knowledge of the past to help leverage his ideas of good forestry practice based on sound ecological values.

*Key Features of Merve’s Teaching*

*Authentic, accurate, logical approach supported by physical evidence.*

Merve’s own natural way of learning was a model for his teaching approach. He questioned the natural order of things and he would investigate widely into the thinking behind an idea. So when questions were asked about his ideas and actions in ecoforestry he explained in a logical, authentic and accurate manner that was based on his own personal experiences. After some time he “consolidated this information into a fairly neat and solid package” that was understandable to the adults who came to see him. I asked Merve to describe how he was able to teach his ideas:

You took them for a walk through and there were stumps … and I said, ‘Well that tree had to come out because it was almost dead but at the time I cut it it was perfectly wonderful timber. So you take the tree out before it starts to decay.’ Or I said, ‘There were two trees there and I took one out so as to give the other one a better chance to grow.’ Very logical, people could see it. There they were the tree and the stump side by side, one’s been felled and the other is doing fine thank you. … You would explain why you were doing this and why you were doing that.

Merve was aware that his classroom, Wildwood Forest, was important and effective because it was an example of something that was working. Here in the actual place of his practice he could effectively show people the physical evidence of what he was talking about, as Merve explained, “You’re not just talking about a theory. There’s the evidence.” He clarified what he meant by saying,
You see that is the advantage I’ve had. If you are just talking about something, well it is an interesting subject but will it work? But if you can bring people in and say, look this is the result after 5 cuts after 10 cuts then you know this is what I’ve still got – then [learners respond with] ‘Oh!’ They can’t deny it because it’s there, they can’t say, it’s a lot of hogwash because you’ve got the trees! So if you are talking about something that’s working then you definitely have the advantage. It’s worked for you; it can work for other people. It can work in different types of forests only there you use a slightly different technique.

Merve’s education had taught him that an explanation on its own could easily be subject to question but when it was accompanied with evidence then one had a much more powerful lesson. Thus he taught in a way that the evidence he provided often gave his learners a direct and visceral experience. In cases where he lacked physical evidence Merve did not settle with just making statements instead he made sure that he had “something to back it with” because he believed that just “a statement could be faulty.” He used his research skills to find other authentic experiences both locally and globally that supported his statements on ecoforestry practices.

Merve’s philosophy of education as it pertained to ecoforestry was to encourage learners to think and discuss the topic, especially to question its authenticity but “question it in a constructive way.” That is to say, ask questions about the legitimacy of the practice because “that is what you are really concerned with.” Merve cited these examples to clarify what he meant: “What are the experiences of other countries that have been doing this type of forestry? What are the experiences that you can find on your own continent and as near as possible to home?”

_Understand the interests of your audience._

A critical component of Merve’s teaching was to develop an understanding of the interests of his audience. With a group of school age children he established at the outset of a tour what the distinct interests were of the range of members of that audience. Each group would
be different but Merve became aware that most students wanted to learn about what was going on around them. A few indicated that they really had an ear tuned to forestry while the majority were “interested in what the forest does for the general overall picture; our environment, the atmosphere, temperatures and this type of thing.” Merve found that if students were given the opportunity they would ask questions that would “steer you into the avenue that they wanted to learn about and usually it was worth it – it was very worthwhile.” Furthermore, he had noticed that kids questions were “very much to the point and they were really seeking information.” If he could offer them insights and the information they came looking for then he would be satisfying their needs to learn. Concurrently, Merve was able to explain or demonstrate many of the environmental values he held dear. He also recognized how important in the learning process it was for students to feel like they were being heard. Merve recalled that “once they feel you are with them, you are paying attention to them then they open right up.” Thus his conscious effort to understand the interests of his audience, potentially led to enhanced student learning.

*Ecological values based learning.*

Merve has answered thousands if not hundreds of thousands of questions posed to him during his tours. When he has had the opportunity he has woven into his answer environmental values that reflect his sustainability philosophy and ecological identity. For example, he was often asked if his ecoforestry practice paid off. His reply took into account principles of environmental sustainability from his experience, “the fact that you still had a forest to live in as well as the wildlife. You hadn’t destroyed the forest to be able to do it.” Merve also discussed the ideas of *just practice* and *long term vision* using his knowledge of the management of forests like the Ardens in France which has been maintained in “gorgeous” condition for over 400 years, and
in the present, the price for logs reflects the full costs of growing, harvesting the wood and sustaining the integrity of the forest ecosystem.

When asked, Merve shared his historical knowledge of North America’s questionable industrial forestry practices and compared them to the forestry practices of a modern sustainable standing forest like the Ardens. Or he may have reached far back in recorded time to explain when good forestry actually started. It often surprised his listeners to learn that the practice of sustainable forestry was not a contemporary phenomenon. From his broad study of history Merve retold an assortment of historical stories that collectively illustrated the true need for good forestry.

Merve modeled respectful interactions with nature through his behaviour and his use of language.

Over the years of educating various groups Merve found that the creatures in the forest got used to people coming through. As long as the noise was kept to a minimum the wildlife were not too intimidated and if they didn’t detect harm they just “carried on doing what they were doing.” Merve also knew that the children, especially the younger ones, had a natural curiosity to see and experience the animals they encountered at Wildwood Forest. So Merve modeled the behaviour of one who welcomed the respectful observation of nature and reinforced this message by saying, “you don’t make much noise in the woods because the creatures don’t like it and if you are quiet you’ll see that much more.” The students in turn behaved very well and were usually intent on what Merve had to say when the group invariably came across an eagle, owl, woodpecker, squirrel, deer or other native species. At the time of observation Merve usually pointed out what valuable role it played in the forest ecosystem. Furthermore, he effectively selected phrases such as “member of the team” or “recognize a friend” when he referred to nature. This use of language was important because it communicated to learners the
ideas of cooperation among equals in a group and to treat nature with respect as one does with a friend. The following interview passage illustrates how Merve used language to enhance his meaning during a school education tour.

I had a big snake who liked to curl-up on a stone up on the meadow on a sunny day. I had a group of kids, I guess grade five or six and this big snake was on the rock, and of course he got used to me coming up close to him. He didn’t bother us one bit. I said, ‘Now here is an interesting member of the team in the woods. It lives on the insects that damage the trees, the grass and the flowers.’ I said, ‘The insects they also bother us.’ So I said, ‘This snake is very valuable so we don’t do him any harm.’ And some of the kids went, ‘Ugh.’ So I said, ‘He won’t hurt you.’ He was lying there all curled up and you know, his little tongue going occasionally as they do. So they all looked at it, and some of them were quite curious, quite interested.

Later on in this tour Merve noticed one of girls in the class had the very same snake draped around her neck. With great delight Merve continued to retell the story.

And it was just a bit of a chilly day that the warmth of her neck was just delightful. [The snake] was balanced on her neck and she was tickling his chin! She said, ‘I’ll put him back Mr. Wilkinson.’ I said, ‘That’s awfully nice of you. I think he can find his way home but if you put him back I think that is a nice idea.’ She took him all the way around the walk and then …she took him off her neck very carefully and laid him on the rock. He curled up again and got into the sunshine. I thought that was so nice to see. She was absolutely unafraid of him … Well even some of the boys didn’t like the idea of a snake around their neck … So I commented on it, I said, ‘You see class, the snake has the warmth of her neck which makes it very comfortable, it recognizes a friend. She’s doing it no harm. She picked it up gently and put it around her neck and it is quite happy to stay there.’ So I said, ‘In some countries you’d have to be very careful [but] on Vancouver Island … you can pick a snake up, you can pet it, you can have it curl-
up in your hand. They’re just like any other creature they have a place in nature.’

Finally everybody came up close to take a look at it.

Merve recognized characteristics of a “born naturalist” in this young student. She demonstrated a high level of connection with nature and perhaps embodied an ecological consciousness on par with Merve himself. As a result of her behaviour combined with Merve’s encouraging words several students in the class cast off their fears and became more interested “because then some of the kids came close to look at it.” This example shows Merve’s awareness of the value of one child influencing others as an aspect of his teaching. The outcome of praise for the student’s respectful, loving connection with nature was “a really good lesson learned.” The impact of the lesson was powerful for the students in that some seemed to change their ideas or feelings about snakes and became more willing to approach them. For Merve, he reflected that a little incident like that “made the teaching so interesting.”

How learners responded to Merve’s educational opportunity at Wildwood

Sense of wonder.

As mentioned earlier in this section Merve could see in the faces of the young learners their eyes widen and their jaws drop open in wonderment as they entered Wildwood Forest. This strong sense of wonder seemed to spark a myriad of questions and Merve would try to answer them as accurately and honestly as possible. Merve could tell they were “really, really looking for information and they soaked it up like blotting paper.” He was aware that the “younger the children, the more things they needed for interest but the easier they were to get information over to because they were really in there to learn.”

Keeping their interests peaked was key to learning for the elementary school students. Merve’s intimate knowledge of Wildwood Forest allowed him to show the students examples of
various species in their habitats as they walked along the path. Merve reflected, “They just loved that sort of thing.” One such animal that seemed to have as much of a fascination with children as the children had with him was a rather large deer Merve named Alfons. Merve recalled one of the more memorable encounters with Alfons and a class of grade five or six students:

One little guy who was here had to relieve himself so he disappeared down the trail. All of a sudden we heard, ‘Mr. Wilkinson, Mr. Wilkinson I’ve got one of Santa Clause’s reindeer!’ It was just around Christmas. Here he comes out of the bush with old Alfons. There was Alfons about ten feet behind him. So Alfons had come out to see all the kids and stood there and looked at them all. The kids all saw him and thought he was great!

The learners were treated with an unexpected adrenaline rush as they saw their classmate leap out of the forest and then too as they all came face to face with a very large and curious deer. The experience probably was as memorable for the learners as it was for Merve because of the young boy’s infusion of emotion and the element of surprise. Merve’s calm attitude toward Alfons sent a message to the students that there was nothing to fear and that this was a positive opportunity to relate to and respect a wild animal who makes its life in the forest.

An interest in creating student enthusiasm for participatory or hands-on learning.

In Wildwood forest students were keen to ask how old various trees were. They were amazed at how long it took for a tree to grow. They were also interested in what kind of trees they saw here. To address this curiosity Merve had the students participate in an identification game. After a short explanation of the differences between trees with needles and trees with leaves and other plants that have leaves, he had them scatter to collect a couple of samples of both types. In a short time everyone came back and Merve would identify the plant from the needle or leaf. Merve remembered that it was “always a fun game; they blew off steam, they
roared around in the bush, they invariably came in with leaves [or needles] of different things they’d found … Then I would tell them what it was. That was quite interesting for them.” Many of the students were surprised at Merve’s vast knowledge about plants and this ignited new curiosity. They would say, “Gee how do you know all this?” And Merve would tell them, “I live with them and these are the things I see everyday. I get to know what they all are.”

Another game engaged the students in observing the samples of the bark of the different trees in order to identify the tree species. Students were required to use their sense of touch, sight, and smell to make the distinctions and properly identify the tree. To reinforce the learning and add interest Merve would ask the students to identify various trees as they went along the path. Merve recalled that the students seemed pleased that they had learned this special knowledge so that upon observation of the bark and needles or leaves of a tree they could successfully identify it.

*Storytelling appealed to students’ sense of wonder and helped them make sense of their experiences.*

Merve found that stories of his personal experiences with wildlife or his sustainable forestry practice would prevent students from losing interest. A student’s question, a creature being observed or a particular place at Wildwood Forest might have triggered the start of a story as a natural extension to what Merve was talking about during a tour. His stories were made real and entertaining to the listener because he did not *tell* what happened, he *showed* what happened through description, dialogue between characters, and demonstration of actions. His stories focused on what seemed to stimulate the sense of wonder in the children; the delight of innocent play with cougar kittens, the fun trying but never quite being able to catch a big trout in the lake, or perhaps the habits of a female hummingbird taking care of her young. In telling the stories Merve revealed to the students aspects of his environmental consciousness in terms of
fundamental connections between himself and the natural world, such as, his understanding that if he protected the habitat for Pileated woodpeckers then they could continue to be one of the natural species that contributed to balancing the insect populations so that the forest could remain healthy. Many of Merve’s stories opened the students to the meanings and structures of sound practices of sustainable forestry and how much he deeply valued nature.
Theme Three: Merve’s Vision For Future Education Founded On A Philosophy Of Sustainability

Merve’s Views On The Problems With Our Present Education System And How He Envisions Education For The Future

In the third interview Merve discussed the ideas and practices from which future education may emerge. He began with the statement, “Over the years I have been around I have seen an evolution in the educational systems that we have been using.” In his estimation, this evolution has resulted in the over emphasis on science and technology as it can be used to dominate over nature and an under emphasis on environmental science that seeks to understand natural processes and how this knowledge can be applied to humans living in harmony with nature. Concurrently the education system has vastly devalued practical manual skills to the point of “cutting out such useful courses”. From Merve’s perspective the education received by learners today does not adequately teach the fundamental understandings of the connections humans have with nature and how to live sustainably in this world. His critique revolved around areas that, in his view, have had an effect on the educational system: public relations and propaganda, the paucity of environmentally conscious political leaders, a balance of valid resources, critical thinking skills, the study of human and environmental history, and funding for education.

Merve then turned his thoughts toward foundation of a future educational system. Here he explains his views on future learning priorities. Topping the list of learning priorities includes: give students a wide variety of opportunities for them to experience human connections with nature, and to gain appreciation and knowledge of nature’s contributions to human existence. Teaching the essentials of teamwork and cooperation within a dynamic and pluralistic community also ranked high in Merve’s vision. He sees the importance of developing good
communication skills as a path toward the ability to ask critical questions, think clearly, comprehend the broad scope of issues and make decisions that result in win-win solutions to problems, which means the environment wins too. He emphasized the need to teach that flexibility, diversity, and adaptability in our knowledge, skills, and attitudes will be required to live in the turbulent years to come. The stories about human and environmental history can reveal important lessons and help us focus on the possibilities of a sustainable future. Lastly, he recognized the need for learners to become citizens who care about social justice and work within democratic values to foster an equitable and environmentally sustainable society.

_Concerns Regarding Our Present Education Systems_

_Cultural dependence on science and technology._

“We’re having a technological binge and pretty soon we’ll have a huge headache! After all if you have a binge usually you have a headache,” warned Merve during our conversation on July 21, 2008. His metaphor depicting what results when we engage in over indulgent behaviour took an eerie twist into a prediction for the future as a world wide economic collapse arrived in October of 2008 with no clear indication of when and if it will end. Personal experience has shown Merve that “education is useless to you if you don’t know how to be practical.” He has seen that the emphasis in education “has been all too often on technology, science, and not on things practical.” I asked what he meant by _practical_ and Merve offered a few examples, such as, knowing how to physically work the land to grow food and then prepare the food for eating or knowing how to sew, knit or work with wood, and many other kinds of skills and knowledge needed to sustain oneself without modern technology. He argued that the problem with technology was that “it only works if you know what to do with it and if it’s not flying completely in the face of nature.” He laments that society has been pushed into believing that
science and technology has all the answers to modern day problems. But he believes strongly that the practical knowledge and skills of the past have been highly effective and more importantly have not been harmful to the environment. In stark contrast he sees the application of many technologies today as a means of environmental mass destruction or wholesale dominance over nature. He counsels that if the earth is remodeled “on a technological basis it won’t work” because he feels that technology robs people of employment opportunities and it lacks the wisdom of the natural systems that have evolved over millions of years that presently sustain life. Merve illustrated his position with an example:

We lost the process of being able to maintain our soils, for instance, for our food supply without a lot of chemical and industrial nonsense. Now come today and that [technology] is not available [then] we’re in trouble … older citizens in my day knew what to plant in their gardens so they would not have insect problems. I remember one man who grew exceptionally fine turnips. Now every third row was an oddball variety of turnip that the turnip fly just loved! So he would scatter a few seeds in the third row but his first two rows they didn’t touch because they didn’t like it. So he had no problem with the turnip fly while everyone else was scrambling to get rid of this turnip fly … Some were [applying pesticides] but that didn’t stop the turnip fly but he did! He provided them with a meal and they left his turnips alone. The turnips he was growing for commercial purposes didn’t have a blemish on them! Now these are the sorts of techniques that we lose because we must be scientific! You know we have to be technically this and technically that. We’ve become obsessed with the idea that science can do everything for us, that chemicals can do everything for us and they don’t. As a matter of fact, in a lot of cases they are a disaster in the long run. We are finding that out now to our sad demise and taking war to all sorts of places.

Merve sees education in modern science and technology largely teaching humans ways to control and dominate over nature. Conversely, the farmer in his story worked cooperatively with
the natural system and achieved his desired end without harming any part of the system. Merve calls for a major reform in the way we are teaching science and technology. He believes that today’s schools should teach, “that science does not have the whole answer.” Our educational system should teach that science is a method that helps us inquire into the relationships, processes, and evolutionary trends in nature, and this kind of knowledge of nature should be our guide to living in harmony with it rather than doing harm to it through attempts at manipulation and control. Furthermore, Merve advocates for an equal emphasis in teaching the insightful, manual techniques of past generations with the technologies of modern times “because if you lose the ancient arts and crafts in a lot of cases you’ve lost everything.”

*Tendency to teach from a competitive perspective rather than a cooperative perspective.*

“We’re so obsessed with the idea that we must win … We’ve got to get away from this context of having to win,” declares Merve. It is a mentality he feels is destructive and is being taught especially through the system of professional sports. The only time Merve truly enjoyed sports was when he was working at Powell River, “Those games were fun!” because they were played “fairly, decently, and honourably”, they were not commercial, and the coach did not have a vested interest in any one team winning since he coached all the teams. Merve reflected that what was most important to the coach and to all players was that everyone “turned in a good performance; that was the best criteria of all.” However, Merve explains that an excessive adversarial or competitive approach tends to create a mentality of “win at all costs” which often leads to destructive behaviour. He believes that people or groups with a strongly competitive perspective can subvert real improvements of ideas since their focus is not on “doing a better job on the whole picture,” the greater good is not considered. Instead of a culture of winners and losers, Merve proposes a much more cooperative perspective where “everybody wins in their
own way and their own field, there is something there for everybody, then you’d have a much
better world to live in, and much, much less crime.”

*Lack of leadership that demonstrates an environmental consciousness.*

Merve stressed the need in our society for politicians who understand the greater picture
of the environmental, social, and economic issues of the day so that they are capable of looking
for solutions that lead to sustainability rather than “looking for applause from the crowd.” He
also expressed the view that our leaders are not strong enough in character to stand up against
popular viewpoints that promote unsustainable behaviour or lack a deep understanding of
sustainability issues. He feels that many politicians are obsessed with the idea that they must win
power. It is this singular focus on winning, Merve suggests, that puts society in peril since the
leaders chose popular actions or the status quo and fail to do what is “right” for the environment
and often more difficult. If we logically follow Merve’s argument then there may not be change
in our education system until there is a change in the environmental consciousness of our elected
leaders.

I asked Merve how he saw politicians becoming better educated about sustainability and
he replied that he had made many requests over the years for them to come out to see what
sustainable forestry was really like but for the most part the invitations were declined. He
interpreted their response as, “Oh no we won’t see it, if we don’t see we don’t know, if we don’t
know then it can’t be.” The one politician who did pay a visit, Merve noted, showed a keen
interest in learning about Merve’s ideas and practices in ecoforestry. This seemed to demonstrate
to Merve that this politician came with pre-set values for sustainability, values that the others did
not possess.
Weakness in teaching critical thinking.

To Merve young people today are being taught to live in a world that is “phoney,” that is unsustainable. He complained that children today do not know where their food comes from let alone know how to grow it themselves. Everything comes from the store and if they want something then they just venture out to the mall to get it. But Merve cautions, this behaviour and set of attitudes cannot be maintained indefinitely because there just are not the resources on the planet to keep up with all the needs and wants. It troubles him that we are not seriously thinking about this behaviour, we are not being critical about how our society takes resources as if there were no limit to them, and we are not asking students to think critically about how they live on the planet. Merve points out that, today, much of the information that learners use as their source of knowledge comes from the Internet. He believes that education does not put enough emphasis on the importance of being critical of one’s sources of information. The tendency, Merve declares, has been to accept new information as the truth. Merve thinks it is much wiser to be watchful of misinformation and try to root out those sources that are unreliable, inaccurate or even down right lies. “Here we are back at Goebbles propaganda ideas,” said Merve, “It is a huge problem and of course we are forever trying to sell goods so we don’t mind stretching that point about that product, and then that leads to a bigger stretch somewhere else … so it is snowballing.” To Merve our society seems to be based on exaggerating the truth so as to make something more desirable so we feel the need to purchase it. To Merve, it is extremely important to teach the attitude that you first question the information you read, see, or hear, then dig for the evidence that shows it is from a reliable source and that the information is accurate before you decide to accept it as truth.
Problems with education stem from funding sources and hidden agenda of big business.

Merve feels strongly that funding for education programs should not come from big business if there are “strings attached to the educational programming.” He explained that this kind of funding practice has been going on for a long while to the detriment of a full and truthful educational experience. Merve described an example of its direct influence on the thinking of a well-respected learning institution, where the former Dean of Forestry had admitted that about 28% of the funding for the Faculty of Forestry came from large timber companies and it had affected 84% of the programming. Thus he believed the education students received was largely skewed toward the ideology of clear-cut forestry rather than a balanced understanding of forestry practices. The students were “not encouraged to see anything else, officially.” Merve also made the point that the views of the Dean of Forestry had been sympathetic to the views of the funding timber companies and that this combination was largely responsible for, what he deemed, corrupting the curriculum.

In a separate but similar vein Merve spoke of the influence big business had on what has been taught in schools. It was Merve’s understanding that the leaders of big business saw the education system as a means to forward their worldview and at the same time free them from criticism. He suspects big business wanted to use the education system to produce “people who would work without question … just a good wage slave,” and the benefits for big business would be enormous. This kind of thinking took hold, Merve estimates, “about the time Dr. Goebbels started his public relations scheme,” that is when industry “realized what a magnificent tool they had in the Nazi method of indoctrination.” Merve expressed how deplorable it is to see the masses “so brain washed” into accepting the message that we are slaves to the economy, and how sad it is to realize “these people don’t have sense enough to” see they can “make a break
from it.” He suggested a hypothetical experiment that may awaken a sustainability consciousness in these leaders, “put them on a desert island with no food or fresh water but with plenty of dollar bills for a couple of days, then see how they feel about power and money.”

_Education has failed to adequately teach environmental values, knowledge, and practical skills._

Merve noted that at the beginning of his tour he would ask a group of perhaps grade three students, “What do you expect to see in the woods?” and the children typically answered, “Oh, lions and tigers …” At first it surprised him that, “they had no idea.” His knowledge of the forest animals and plants was second nature to him, it was an important part of his forestry practice, and he valued it. However, there seemed to be a substantial gap in the young students’ knowledge of local natural flora and fauna. Furthermore, Merve is disheartened to see that so many people don’t know how to do agriculture. He blames this on a cultivated aversion to manual farm labour, “now we don’t teach any of that. There is an attitude, ‘Oh no that’s farming you don’t want to do anything farming. You want to be so and so’.” Merve has also noticed a trend where “people will move into a house and they will never think of planting a fruit tree. They just go buy their fruit” at the grocery store. They have learned to become consumers who are dependent on the store for sustenance. Merve believes that many people have lost their connection with resources, such as a fruit tree, which creates a loss in their ability to care about resources. This forgotten way of life points to generations that “suffer from a complex where we feel we can’t grow our own food,” and an educational system that appears to have failed to teach core agricultural values, knowledge, and practical skills.

“We are looking at a very, very difficult future, immediate future, as I see it,” remarked Merve. “We have made such a mess of the environment.” A fundamental problem, according to Merve, is that we have put up with people using the environment in very wasteful ways and that
is a reflection on how we educate people. There are key environmental values that need to be taught but seem to be missing in education today. Merve provides some examples: “… there is material there to use but certainly not to destroy … to use the environment sparingly … only for what is needed.” He adds that we must be taught to take responsibility for our actions “otherwise it’s a disaster for everybody” including the environment.

Merve feels that people need to be fully conscious about the ramifications of our actions and decisions regarding how we change the environment and what we can do to prevent further destruction from happening. He is very concerned with the “heaps of waste” he has seen especially in forestry. What Merve thinks should be automatic behaviour is reusing, reducing, and recycling the resources we already have extracted from the earth. We need to teach that these behaviours are desirable and we need to redesign the economy to make it viable. He expresses hope that “there are some that are waking up but” he is “afraid there aren’t enough and not fast enough.”

One area that needs to be addressed immediately is how education can counter-act misinformation; the “tremendous amount of material put out to people that is a direct lie.” It has been his life’s work to try to educate people so that the policies of government, corporations and unions do not block the learning and understanding of sustainable forestry practices. Merve feels if we don’t reform our education system then we will continue on our historical path of failing to plan to avoid destructive environmental impacts, and run away human resource consumption. To Merve the changes needed in education must be comprehensive, and based on what “is better for the people and the environment in the long run.” An example of this type of knowing is in the story Merve told about a friend who was visiting Sweden, not far from Stockholm. While visiting a tree farm combined with a dairy farm he was informed that the soil was found to be too
poor for agricultural purposes and so the land was turned back to forest. They came across the grandfather of the property who was engaged in carefully planting the new forest. Merve’s friend asked the older gentleman, ‘I find it interesting that you are planting trees; you’ll never live long enough to see the benefit of them.’ The grandfather replied, ‘No, but my grandchildren will.’ This illustrates the understanding that, how one behaves now toward the natural world will have an affect on what will happen to the natural world in the near and distant future. Merve emphasized this is a wonderful example of how we should be thinking about resource limits, the impact of our family, community and industry’s behaviour on the health of the place we live.

*Education fails to teach the history of civilizations that fell due to their aggressive attitude toward the environment.*

A student of history for most of his life, Merve has come to realize the importance of this kind of education in giving him a broad perspective on human civilizations and to see the cyclic nature of their rise and fall. It still fascinates him to think that,

The Egyptians, Greeks, Romans, Byzantine Empire the whole lot … Once they got into big cities the civilizations started to decay and it was not long before they were gone … and because these civilizations had aggressive attitudes towards the environment they undid the environment that built them. They destroyed the environment that built them then they had no environment left and they died out.

To Merve, people need to learn from the study of human and environmental history that it is wise to respect the environment and use it sparingly in order to change from our present destructive and rapid urbanization path, otherwise we are bound to repeat civilization’s downfall. Merve illustrates this point by stating that there is evidence of cultures that honour their relationships with nature and preserve a strong sense of community; these civilizations tend to continue on existing because many in its population maintain,
… a little place in the country … they have a little garden … they keep the connections with nature. They know how to plant and how to tend their garden … what they don’t grow themselves they have an exchange with the neighbour next-door.

Merve feels that most people lack this education yet it is crucial that we have a good understanding of the history of human actions and their impact on the environment if we are to choose patterns of behaviour that are sustainable for the future.

*Merve’s Vision For Future Education*

In order for Merve to answer my question about what he sees education looking like in the future he first needed to think about what a world without oil might look like. No doubt, he thought, “there will be a lot of new ideas that come up and some of them will be very good.” But one of the main features of future education is to prepare learners to be flexible in mind and skills. Merve explains:

As I see it, education should not be too specialized in that it channels people into one thing. Education should be general enough so the person can fit into whatever the situation is when they are in the labour market … Teach the general principles but don’t specialize to the point that they can do only one thing because you’re simply trapping them. They get the idea that’s the only thing that is important. They don’t want to do anything else … but then it’s gone. It is far better if they know how to deal with all the situations to a certain extent … People will have to be flexible in other words. Flexible enough so they can fit into the situation at hand.

Merve also sees the future world being in a state of chaos for some time in terms of economic instability and environmental decay and changes. He notes that most people “tend to think that things are going to be exactly the same all the way down the road all of their lives but,” he cautions, “that’s not necessarily so.” Merve suggests education should try to “teach
children to be as adaptable as possible and to have as many practical skills as possible” so that
they may be prepared to face the uncertainties of tomorrow in a world without oil to power
modern technologies.

At the heart of a reformed education system, Merve insists, is a set of sound ethics. He
believes that today people of western societies learn to value money the most, and that people to
whom we look for leadership are those who have obtained great monetary wealth. Merve wants
to see that change to an education that emphasizes the top moral values; where good character,
honourable behaviour and respect for one another win our praise. He feels that the youth of today
require more guidance in developing their ability to evaluate the good and bad influences in their
lives. It is also an education that embodies environmental ethics that stresses conservation of
resources, a non-destructive, non-controlling attitude toward nature, and an acceptance of
*humans in the environment* rather than spectators of the environment.

What follows is first a description of Merve’s thoughts about how future education might
be taught using his observations from his own learning and that of learners who have come to
Wildwood, and second an overview of what the curriculum should contain to help create a
sustainable society.

*Features of an education for the future.*

Using knowledge about his own learning incites Merve to state that “personal
experience” at actual sites of sustainable practices is one of the best ways to learn. “Once they’ve
been into this a little you don’t shake them one bit because they begin to realize just what the
potential is.” Foremost in any education system he feels you must make the learning meaningful
and hands-on. For the younger learners seek to feed their *sense of wonder* and for the adults
address issues that are personally important to them. But he makes a special note that the first
five years of life are so important because this is the prime time to establish core environmental values and self-discipline. If this is not accomplished then he fears that these children will possibly experience learning difficulties in their subsequent years of schooling because they lack self-discipline or will become adults who do not discriminate between sustainable and non-sustainable behaviours.

Merve is convinced that more learning happens when you provide ample opportunities to engage the thinking process in a rich context. Wildwood Forest is an example of a rich context. The ideal education for young to older adults would consist of a combination of demonstrations, practical personal experience, questions and discussion in small group settings where the learners would gain confidence in: their understanding of nature’s relationships and processes, the effectiveness of their practical skills; and their ability to explain their thinking to others. He sees this kind of education as a form of mentorship or apprenticeship. Merve urges that communication needs to be kept open so that ideas can be exchanged and discussed, and “you must not be frightened of making a mistake … If you don’t make any mistakes you’re not doing or learning anything.” In his vision of education, knowledge and skills are not fractured or compartmentalized into courses of study instead it seems to take on a holistic quality where relevant knowledge, skills, and attitudes are called into play based on the situation or problem to be solved. However, Merve states that the learners need “a certain basic knowledge” before they can proceed forward in a more holistic way of learning. This education system will value authenticity, accuracy, and the ability of the learners to justify their answers. The ability to think on one’s own will be a goal but learners should also be taught to value the analysis that others contribute to the discussion. Merve believes that to make the learning more effective the small group of learners with their instructor, as a model, will work together as a team sharing ideas,
research, stories and history, as well as, practicing their skills. Together they will use their best understandings of natural systems to arrive at plausible conclusions to improve practices or offer viable solutions to problems. The teacher models sustainability thinking, demonstrates skills, and possesses a passion for the natural world but the primary goal of the teacher is to guide students into become their own thinkers solidly rooted in environmental ethics, reasoning, and skills. The primary task of the student is to be a focused observer, so that he or she is able to grasp the skill or knowledge with ease and demonstrate the new ability.

Merve’s view of the need for a thorough understanding of nature around you.

This is one of the most critical parts of the future curriculum. Inquiry into the natural world allows the learners to discover the wonders of the environment that they are a part of. Merve suggests that this learning start at kindergarten and learners should have regular visits to their local native environment. Since young children display an innate sense of wonder about the natural world this is an excellent time to focus on their connections with nature and blur the mistaken ideas of separation. From Merve’s own early experiences he made numerous connections with the plants and animals of his local home environment, he learned to recognize them, he played with some of the native animals – learning to treat them with kindness and respect, and he communicated with his family and teachers about them. From this early immersion into the natural world Merve was able to develop, with the guidance of family and teachers, a deep appreciation of and a close relationship with the natural world. This emerging environmental consciousness and passion for nature in turn seemed to create, in Merve, a sense of responsibility to care for nature and maintain its existence. He made a point of pursuing an education that would show him how to be responsible. Although difficult to recreate his experiences, Merve envisions children having frequent outings in nature, learning to recognize
local native plants and animals, along with their basic roles in their habitat, and making their own personal connections with the natural world. He believes they should be introduced to the practical skills involved in gardening, as well as, caring for plants and animals in the wild. As learners mature the breadth and depth of their learning about the natural world and their ecological consciousness will expand from a local to a global level. Concurrently, Merve believes learners will develop a greater sense of being part of the ecology and embrace a sense of responsibility to sustain its existence early in their educational experiences.

*Appreciate what creatures and plants in the environment have to contribute to our existence.*

Merve recognizes that if there is no environment then we have nothing. Therefore it is very important to teach our young people at a relatively early age that our existence is dependent on a healthy functioning natural world. Learners need to understand the basics of how ecosystems work and how they contribute to maintaining life, first, at the local and then extending to global levels. Ecosystems provide us with numerous services, such as, the hydrological cycle that brings into being the environments in which humans can live. It is imperative that learners understand what they can do so that these services are sustained naturally for our own existence and that of other living things. Merve also feels that it is necessary for learners to understand that living beings other than humans have a right to exist too and that they can live with us if we can learn to live with them.

*Understand the value of making connections with nature.*

As we give learners many opportunities to make connections with nature, Merve thinks the learners will gain a better understanding of how they are in the environment not outside of it as a spectator. The more connections learners make the more they tend to see the value of nature
and discover its beauty. From his own experiences, Merve understands the psychological benefits of being in Wildwood Forest – the sense of peace and happiness. He believes learners should reap these benefits too.

_Understand the value of community._

Merve considers that he grew up in ideal conditions for his chosen profession, his knowledge, attitudes and skill set. He explains that these ideal conditions were features of his community, “citizenship and community spirit, cooperation, people who worked for their community as well as for themselves. They realized if the community was good then their lives were good and if the community was bad their lives were bad.” Merve sees a break down in community life today. He feels that the education system should play a role in recreating healthy communities for the future. Merve describes a good community as a place where people, no matter what their background or religion, work together for the benefit of the lives of all the members of the community, and that the primary value is to respect each other and the well-being of the natural environment they live in. He suggests that schools model the attributes of a good community by offering a diverse array of clubs and recreational activities that the students show an interest in. These activities are meant to nurture their physical and creative energies, and a way for them to learn new knowledge, practical skills, and values. People of all ages in the community should participate in helping to organize these activities so the children feel that the whole community supports them. Merve imagines the use of technologies such as the computer and social networking as a means of bringing parts of a community together or different communities in contact with each other providing an overall benefit. However, he is concerned with its over use, possibly encouraging students to be sedentary, or exposing students to nefarious elements. Most importantly students learn how to work as a team and come to
understand that working together lightens the load for everyone; they can have fun and be productive all at the same time.

Broad education that is not just academic, and learning what is going on around you and why.

To prepare for the uncertain times ahead, Merve favours giving students a broad education because he believes the students will be better equipped to adapt to the changing circumstances. He thinks that students need to have opportunities to be aware of, to have thoughtful reflection upon, and to discuss economic, environmental, and social issues of the day so that they may gain a better understanding of how and why the world is in this present condition. From this starting point the students may then think about and propose their own scenarios for a possible future. In Merve’s opinion the key time to start teaching students about sustainability is grade four because it is at that age that they are “hungry for knowledge about their surroundings” and “they just soak it up like blotting paper.”

Develop the ability to think critically and ask questions.

To Merve critical thinking is a means of seeking the truth. He is insistent that students must be aware of media and advertising exaggerations of the truth and taught the skills of questioning the validity of the information they are receiving. Students need to develop an attitude of, “do I really believe that?” They must become adept at finding out the reasons why a source published or broadcast a particular piece of information so that they can detect unfair bias if present. To Merve this needs to be a life long practice and should be started at kindergarten or grade one. Education should aim for developing in students a healthy skepticism. In addition, students need to be able to justify their answers to questions. This requires students to reflect
more deeply on the reasons behind their answer and valid research most likely will help them find supporting evidence.

*Develop the ability to do valid research.*

Merve thinks research skills are important for students of tomorrow because these skills will help students locate factual information that supports their ideas or theories, and help them to find authentic answers to their questions. Critical thinking skills need to apply to any research endeavour to ensure that the information is accurate and not unfairly biased.

*Develop an attitude of cooperation and open-mindedness, where a ‘win-win’ decision is the ultimate goal.*

Being cooperative and open-minded have been some of Merve’s highly regarded character traits and he believes that these are characteristics needed in the people of the future. Schools can teach learners how to work cooperatively with open minds and use these skills in decision-making situations. When Merve speaks of win-win decisions he means that we consider the environment as an equal player amongst the stakeholders, and it too must be a winner.

*Develop strong communication skills in reading, writing, and speaking so that learners are able to comprehend a wide variety of sources of information and knowledge.*

Merve identifies strong communication skills as an attribute that will help students be adaptable as they face changes in the world of the future. He reasons that if students know how to use language effectively, that is communicate well, then they can “use their own intelligence to comprehend an issue”, share their ideas, “and be able to solve problems associated with the issue themselves without having to” depend on others to solve it for them. Merve sees communication abilities akin to thinking abilities. In a future that is not going to be “exactly the
same all the way down the road all of our lives,” we need to prepare students to be able to think through and understand the forces that contribute to “changes in modes of living and modes of thinking and so on.”

Develop an appreciation of the arts in all its forms.

Merve recognizes that an appreciation of the arts gives students an opportunity to look inside at one’s ideas, assumptions and beliefs, as well as, look outward toward society’s norms. He describes the potential effect of the arts as “letting you react within yourself … it induces memories and helps you paint a picture of the world within you.” The arts can have psychological and physical effects that are at times stimulating and at other times calming. To Merve, the arts offers us a challenge to express ourselves in many forms, entertain ourselves, and have fun. Merve recalls the youth drama club where he “coached” the young people as they collectively wrote, staged, produced and performed in their plays. The young people took ownership of their plays while Merve facilitated their work. In this way Merve states, they “thoroughly enjoyed it. I never had any trouble with drop outs.” They would hone the skills they already had and it gave them the experience to learn new ones during the production and performance phases of the play.

Develop humility.

Learning to laugh at ourselves will be a start toward developing within us a sense of humility. According to Merve humility is a character trait that needs to be nurtured in our society because he feels it will bring humanity closer to an understanding of its rightful place in nature.
Libraries need to have available resource materials that demonstrate opportunities in sustainability.

Education systems are supported by their resources and therefore school libraries and classrooms must be well equipped with books, and other documentation that tell the real stories of how sustainable practices can be successful economically, socially, and environmentally. An idea Merve has is to make available directories describing ecoforestry operations and tours or educational programs that are offered. On the science front there could be educational spin offs from university forestry programs focusing on basic research on forests and other ecosystem inquiries.

Other key points in an education for the future

Merve states that, “Civilizations go down but the surviving people are the people nearest the land. … They build up a good agriculture and then they start to build cities or go back to the old city, then in turn they go down.” Including these kinds of stories of past civilizations demonstrates to learners how humans are tied to nature, ultimately for their survival. Recalling the 1929 Crash and subsequent Depression of the 1930s, Merve lived the experience of what it took to survive, where people “went fishing … or hunting for their meat … and cut fuel out of the woods,” they were tied to the land, the sea and the forest, and cooperative communities provided “many hands to make work light.” The community saw to it that people had the essentials of food and shelter. Furthermore, these communities moved much slower than today’s communities and were far less destructive. It alarms him how easily humans can now cause massive devastation of natural environments.

This moves us to Merve’s next point – that learners need to understand that their behaviours are frequently destructive in the fast paced world of today, and that they need to
discriminate between actions that destroy and those actions that sustain the natural world. This in
turn will teach learners what it means to be a citizen; a person who has a “do not destroy”
attitude, and through his or her actions, both short and long term, shows the moral responsibility
for sustaining the environment, and for the welfare of other people. Similarly, Merve sees the
need for raising the profile of social justice education. He believes that open discussion and
interpretation of different ideas makes democracy work. He is concerned that we have become a
society “locked into one idea,” which he thinks, “stifles all the worthwhile things,” that could
contribute to creating a sustainable society. To illustrate this, Merve asks, “Why don’t we hear
more about some of the smaller countries” like Denmark and Finland where there is sustainable
forestry, and a stable secure society all based on strong environmental values? Society may be
able to evolve with a change in the education system that broadens learners’ knowledge and
understanding of social democracy which includes; the study of fair and balanced power sharing
between public and private entities, and where working together is the norm rather than one
controlling the other. In this education system Merve thinks the focus ought to be on our
“commonalities and how we can live in harmony,” respecting each other. He makes the
argument that if groups only look at the differences then they are far apart in their thinking and
will never agree with each other.

To bring into reality this future education system Merve states that it needs proper
funding. He is not adverse to monetary support from business in terms of buildings and resources
but he draws the line at any influence that a business may have on the curriculum. Although
business issues should be open to discussion they should not sway the content of what is taught.
According to Merve, adequate funding needs to be provided for formal schooling, informal
interpretive or demonstration programs, and a myriad of strategies that raise public awareness, such as, ministry advertisements and announcements and informative resources in libraries.

Merve has seen a multitude of changes over his more than 90 years on the earth, however, he speaks with urgency and passion that a significant change must take place in the way humans, especially Western North Americans, think and act in relation to nature. He acknowledges that we are at the edge of an ecological crisis that we have never experienced before and it is human created. Education is one way of mobilizing changes in the systems that direct where society is moving. The resounding message Merve wants to send is, “We’ve got to do it now or we will never do it!” The question is; will we answer his call?
Chapter 5: Discussion and Recommendations

Chapter five is divided into three sections. In the first section I summarize Merve’s narrative, his thinking, actions, and how the most significant themes form the framework for his philosophy of sustainability education. In the second section I reflect on the ways that interviewing Merve and analyzing his stories has influenced my thinking and practice as an environmental educator. In essence this section is the story of my growth in understanding sustainability education, and how I see my praxis changing as a result of conducting this research with Merve. The third section, my concluding statement, I suggest how this thesis project may be of use to others, and how I intend to use my work to prepare articles or materials that will help others know about Merve’s life work and contributions.

Summary Of Major Themes: Merve’s Unique Educational Experience and His Philosophy of Sustainability Education

An early childhood immersion and primary experience in a natural environment with and without guided instruction from adults is a major theme that emerged from Merve’s stories; a theme that set Merve on his path toward thinking and acting sustainably. In this theme Merve highlighted the importance of his childhood as a critical entry point to discover the “joy and wonder of nature.” He emphasized that he spent all his free time exploring, playing, and having fun with and in nature. At this time he constructed his own personal connections with the natural world as he interacted with the plants and animals; he made sense of the environment through his physical senses and the caring relationships he formed with living things. Nature for the most part was his teacher. In Merve’s case, his rich daily direct experiences, and the fact that he made friends with and played with toads, snakes, bass, and so forth helped him foster an understanding that he was part of rather than separate from nature. These relationships brought him great joy,
and sometimes sorrow when an animal friend would disappear; these relationships formed the basis of an emotional connection Merve formed with the plants and creatures that lived in and around the place he called home. His parents imparted to him aspects of *right behaviour*, which he emulated in such activities as the hunting of grouse or treating his pet toad kindly. His emotional connections with nature combined with his ideas about what constitutes right behaviour seem to have contributed to his sense of responsibility to his fellow creatures, expanded his knowledge of relationships in the environment, and he learned relevant practical skills through the mentorship of adults who had a nature-centered worldview.

Merve’s experiences with adults who shared with him their understandings of, respect for, responsibility to, and valuing of nature formed the foundation of his education. This is the second major theme in this study of Merve’s life experience. Merve’s stories seemed to show that his interactions with the adults he valued and who were nature oriented, were critical to the formation of his sustainability thinking and practice. Throughout childhood and into young adulthood, Merve was influenced by the values taught to him by his parents, valued members of the community, and his school and university teachers. Rich direct experiences seeing, doing, and interacting, as well as, listening to stories retold had a great impact on Merve. Learning practical skills related to agriculture and hunting helped connect him to the land, animals, plants and other living things. Through the guidance of his role models and mentors Merve developed his understanding of the interdependence of life with other life and abiotic entities within a community of living things; reinforcing the idea that humans were nature too. His community of teachers introduced him to their understanding of democracy that called for equality between all living things and the systems that supported life, as well as, a belief that the right to exist extended to non-human life. Also Merve became aware of the kinds of environmentally
destructive behaviours humans were capable of especially pertaining to forestry and he
developed a natural abhorrence for it. Merve’s educational orientation pointed to working
cooperatively, showing respect, acting responsibly, and treating others with dignity – others
included non-human life. Merve shows how he developed key concepts such as the idea of
interdependence with nature, and the reciprocity of relationships in the following phrases: “do
not destroy the environment you live in,” “if you don’t have an environment then you have
nothing,” “animals can live with people if we can live with them,” “take only what you need,”
“work with nature rather than try to control it,” and “I was part of the whole big scheme of
things.”

Merve’s teachers not only provided him with opportunities to observe phenomenon,
practice skills, and pick up information but more importantly they passed along their enthusiasm
and passion for values and a worldview that held the pursuit of a healthy natural world far above
the ambition of monetary wealth at the expense of the health of the natural environment. His
teachers were often models of responsible behaviour toward the natural environment giving
Merve agency to act in a similar way. Some teachers modeled critical thinking and showed
Merve how to speak out and to question the “order of things” if it did not make sense to him. At
the same time they taught him the importance of being open and respectful of other people and
their views so that all parties in the dialogue felt they were amongst equals, then effective
communication could take place.

A third theme that emerges in Merve’s narrative is the importance of honouring the
collective memory or wisdom of historical knowledge. Merve also referred to this as traditional
knowledge. Merve states that it is not enough to just understand what happened in the past but
more importantly one needs to seek out why something happened. His love for history seemed to
come from his experiences with engaging storytellers in his family, Elders in the community, and insightful teachers. These storytellers shared with Merve their passion and exuberance for understanding what the world was like in the past, and what life lessons could be gleaned from an accurate understanding of what and why things went wrong or right. Through reading about, listening to and discussing accurate historical accounts, that went beyond his own culture Merve saw a means of comparing and contrasting his knowledge of the present with the collective wisdom of the past. Merve’s insight may be paraphrased as; if we only value the knowledge we have of our immediate present world then we are cutting ourselves off from important knowledge and understandings that are critical to making wise decisions for the future. To Merve scientific knowing is important but this way of knowing the world does not provide all the answers. He found the study of historical environmental knowledge – including indigenous traditional knowledge – and experiences with practical skills uncovered important values, and the idea of spiritual connections with the earth. This kind of educational orientation broadened his ways of knowing the complex interdependence of life with natural systems. Merve’s education linked ideas about human history with ecological events and allowed him to “remember to remember.” He was not just focused on the present, lacking an understanding of the human role in environmental destruction and manipulation through the ages; instead he was able to expand his ecological literacy to include the wisdom of sustainable practices illustrated in historical records and stories.

In Merve’s view, it is important to look to the past for guidance and this idea has had an influence on his planning for the future, a plan that applied thinking and practices that valued environmental, economic and social sustainability to his work in forestry. The fourth theme to become apparent from Merve’s narrative is the idea of forming a long-range vision. Without
question, the guiding value for a long-range vision, according to Merve, is having a deep concern for the welfare of the world. He described several fundamental principles to this kind of vision, which include: an attitude of do not destroy the natural system that is the source of the material for your activity, understand the limits to the capacity of your activity and do not exceed that capacity, establish a mandate of quality rather than quantity, work with and build a support system with others who are like minded, and engage the local community for the workforce. In Europe, Merve was impressed with several examples of businesses, and other organizations that were successful and sustainable for generations using these principles as the basis for their long-range vision. In applying this knowledge to his own life Merve became convinced that to be sustainable in forestry he not only needed to be concerned for the welfare of the world but also he needed to set a priority around the limits of the resource; the tree volume he harvested must never exceed the tree production capacity of the forest ecosystem. Merve has made it his passion to learn all that he can about sustainable forestry, and to educate others in doing the same—thinking and acting sustainably.

Merve’s experiences have had a natural affect on shaping his views on education. The themes described above are reflected in the fundamental principles of his philosophy of education. What follows is only the centerpiece of his philosophy of education. First, Merve believes that the early years of life are very important. It is the prime time to begin teaching and establishing core values and self-discipline. He suggests that experiential learning is one of the best ways to learn, therefore, children starting at kindergarten need to have many, positive, direct nature experiences from which they share the joy and wonder of nature, and gain the understanding that they are part of nature. Second, Merve views the childhood years as a critical time for children to build the widest possible understanding and appreciation of nature; revealing
the interdependence of relationships, and nature’s contributions to their own existence. During these years of schooling teachers and other adults play a key role in mentoring, and modeling responsible actions and respect for the natural world. In addition, they are instrumental in providing not only a learning environment that is based on the principles of social justice and democracy, which extends to the non-human world, but also opportunities for students to act democratically and justly with respect to each other and to the natural environment. Third, Merve regards the study of history as a means of remembering the lessons learned from the past – the mistakes, the achievements, the great truths that bind people to nature. It is a broad education ushering into mind a number of cultures other than one’s own, connecting people’s history to environmental history. This aspect of education invites students to understand that the natural world has been vastly changed from its present state, and how and why humans have contributed to the changes, often at a tremendous cost to the natural environment and human societies. Merve believes that students, with this historical perspective combined with critical thinking skills, will have a better ability to make the decisions that will bring in a sustainable future. Fourth, Merve sees education as assisting students to develop, communicate then put into practice the concept of a long-range vision, which ultimately marries core democratic values to key understandings of the interdependent relationships in nature.

How Merve Has Influenced My Understanding And Practice of Sustainability Education

My passion for the power of education to be transformative led me to Merve. Merve’s passion for sustainability thinking and practice led him to share his understandings and experience with me. I began this research with the assumption that the education process as practiced in modern Western culture was not adequate to help bring about a sustainable society. Yet Merve was an example of a person whose education had been instrumental in developing in
him sustainability thinking and action. Hearing about Merve’s work and interest in educating elementary school children sparked my interest in researching his narrative. I wanted to build and represent a deeper understanding about how his own education transformed him into a person who thought and acted sustainably even when many societal norms were against him, and I wanted to understand what he believes are the fundamentals of an education that truly serves our future.

In reflecting on my research I see that Merve showed me that my own values and education strongly supported a holistic type of learning, situated in the natural environment, starting early in childhood. Merve had the freedom to enjoy, exercise his sense of wonder, and observe directly life processes in action in his playground of the forest ecosystem and watershed. This portion of Merve’s education resembles what Whitehead described as the romance stage. From my experience in formal education young children tend not to have the same freedom to play in natural environments, their out of classroom play areas are often on a field or black top, an area usually devoid of trees let alone a thriving forest ecosystem. This kind of scenario is far removed from what Merve had at his doorstep indicating to me that an essential part of a child’s education is missing in our modern system. Yet, given that the majority of children in Canada now live in urban areas, how best can we introduce ecology/living systems into their daily lives?

From my work with Merve I have come to understand some possibilities for an education for the future. I will highlight the reforms through a hypothetical example. In my imagined ‘ideal’ school of the future the curriculum is ecocentric, that means much of what is explicitly studied is ecological based, and its purpose is to develop in the learner the “qualities of mind that seeks out connections” (Orr, 1992, p. 92). To start off the school building is a model of sustainability in that it is built from local renewable and/or recycled materials, contains no toxic
chemicals, and is built to LEED (Leadership in Energy and Environmental Design) platinum standards. All the energy used in the building by students, staff, administration, and other part-time users is produced through renewable energy sources, some of which are part of the building itself, such as, solar photovoltaic cells, solar hot water heat pumps, wind turbine, and so forth. Its net carbon footprint is zero and it may produce energy that can be sold to the grid. The school building is a resource for learning that science and technologies that are part of human made structures can do no harm to ecosystems and can respect the limits of natural resource renewal. At the same time that students are learning about what the building is made of and how it works they are also learning core environmental values and learning to think about how building today will have an effect on life systems in the future. The students will also study the history of building to learn about different types of structures and their environmental impacts. Every day the students enter the school building they are reminded of the environmental values it embodies through the implicit curriculum.

How will the children get to this school? Ideally I imagine them walking, cycling back and forth or using another form of transportation that is consistent to modeling sustainability. The issue of transportation for the children may have implications for the ‘catchment area’ for this school. However, this could be an opportunity to engage the community in exercising democratic principles in the process of deciding which children would be able to attend this school.

The school building however plays only a part in the students overall education since the school campus includes or has direct access to a modest organic experimental farm and gardens where a variety of native foods and flowering plants are grown. An ecosystem natural to the location such as a forest, lake, ocean, tidal or other system will be on the campus or nearby for
easy access as a hands-on learning environment. Much of the school day for primary and elementary students will be spent outdoors in these situated, place-based learning centers. Teachers and members of the community will help guide students to discover the wonders of the natural world. Students will learn to observe and identify the features of a healthy landscape, interact with natural systems using their senses, play with the native species, learn how local ecosystems interact with each other and how these ecosystems contribute to human existence. Students will develop a sense of place and belonging. As they mature and cultivate their competence with local natural systems their studies will broaden gradually to the global level. In addition, they will make their own personal connections with nature as they play, and learn that they are part of the natural environment. Students will explore how human populations and their activities have created change in the landscape and conversely, how the landscape has had an impact on human ways of living. The arts, sciences, social studies, physical education, language studies, and mathematics, all will be integrated at the school so that the children experience a holistic or multi-disciplinary education, developing their ecological consciousness, their appreciation of nature, their competence with natural systems, and their abilities to think and act sustainably. At this school of the future the students actively participate in their development of practical skills working with the land, plants, and animals.

What will the role of the teachers, support staff, and administration be in my imagined setting? Their main function is to facilitate student learning in an atmosphere of democratic participation. Learning does not just take place at the school but it occurs throughout the community engaging members of the community to work with teachers and students and share their passion, skills, and knowledge in the activities of a sustainable society. Thus the boundaries between the school and community as well as subject areas will diminish. Students can then see
that their education is part of life rather than separate from it. Faculty and community members can take on mentorship roles with students. Elders from different cultures will be encouraged to share their stories of the past with students to broaden the students’ knowledge and understanding of the variety of values and worldviews.

Learning will be focused on cooperating with others to bring out the potential abilities in everyone. This does not preclude independent study or a modest level of competition but by modeling cooperation throughout the workings of the school and clearly communicating the same expectation for the students it will help to develop a sense of how to work together in harmony. Experience of one student can have a profound influence on others. This will be applied to decision making and other aspects of action projects where students can demonstrate their knowledge, caring, and practical competence in understanding how humans and natural systems can interact sustainably on environmental, economic and social levels.

Action projects will address real life issues in the local community or at the global level for older students and will be a culmination of student learning and also demonstrate that their actions make a difference by enhancing the sustainability of the society. To prepare the students for the action projects they will experience and participate in the issue first at the local community level. At this stage, the students think critically about the issue. They observe, make measurements, and collect evidence. Next they will examine the information for authenticity, raise any further questions they may have and act to find the answers, identify and discuss the assumptions and values behind different views. They will also look at the issue from the past and the present to determine how that informs them about the possibilities for a plan for the future. This brings in the idea of a long-range vision. Before decisions can be made about their action the students will delve into the environmental ethics and attempt to define the right relationship
– that which will do no harm to the ecosystems – potentially this will lead them to the right
behaviours. All of this takes place in a tradition of democratic participation where each student has an equal voice with the goal of achieving a mutually agreed upon, win-win, action plan and then to follow through with that plan. As in any real life situation plans do not always turn out as expected so the students will also need guidance in adapting to obstacles and being flexible when necessary, picking themselves up and trying again.

One area that I have not explicitly included but I feel is important in a vision of education for the future is the development of the mystical or spiritual aspect of the North American Indigenous people’s view of traditional education. Paraphrasing Merve, it is the belief that all things have spirit, in other words a life force flowing through them, and this spirit connects all things to each other. It is a paradigm that, I believe, humbly situates humans in their proper place within the natural world. I think that this view needs to be thoroughly discussed, not just parachuted into a two-hour session one day during the school year.

As with any vision, it is certain to have impediments. How might it be fully funded? Will community members offer their experience and time for free and how might they be engaged over a longer period of time to help guide the students in their learning rather than saving their own time by giving a lecture? How can each school offer the natural wilderness experiences so necessary for the early development of human connection with nature and a caring environmental ethic? What will it take to persuade educators, political leaders and society that a sustainable future requires the education system to be a model of sustainability thinking, caring, and action?

There will be those who will argue that this kind of education system will infringe on their rights of freedom, but at what cost does society allow unfettered freedom? To balance out
the rights of freedom we have responsibilities. I think Merve would agree with me that if we act responsibly toward the environment, then many freedoms could still exist. However, if we ignore our responsibilities to live in proper balance with nature the resulting changes in living conditions may very well preclude freedom. It seems to me a small price to pay to make reforms to the education system so that we may collectively work towards the creation of a sustainable society.

**Concluding Statement**

At the conclusion of my thesis project Merve’s call to action echoes in my mind, “We’ve got to do it now or we’ll never do it.” I am also moved by the words of the German poet Goethe, “To think is easy. To act is difficult. To act as one thinks is the most difficult of all.” Working through this project has not only broadened and clarified my thinking about sustainability education but it has empowered me to do what is most difficult, act as I think, and act now. In my concluding statement I present some ways I see my thesis project being useful in creating change in education so that the system truly reflects an orientation of sustainability.

Merve’s narrative, which illustrates his learning process and sustainability education philosophy, would be valuable for teachers at various stages of their professional careers. Teachers often have a great impact on their students and this is a key place to start sharing Merve’s story. I believe new teachers would find it useful for reflecting on their understanding of education that brings forward a sustainable society. A study of Merve’s vision for education may help them develop their understanding of how they might go about preparing and implementing strategies in their classes to authentically teach their students environmental responsibility, and give their students opportunities to take meaningful action in their local community. Practicing teachers may benefit from a professional development workshop or series of workshops that
features Merve’s vision of education for the future. Teachers need to reflect on their practice, and discuss the implications of their practice for student learning, keeping in mind relevant environmental education learning theory. Teachers also need to think deeply about the implicit curriculum, that is, how the school community is or is not a model of sustainability and how that plays a role in student education. Merve’s vision of education for the future needs to be presented to school administrators, School Boards and the provincial Ministry of Education. Since they are the main decision makers for change in education policy they may find Merve’s ideas useful to understand what is needed in terms of a paradigm shift, and move the education system forward to educating students for a sustainable future.

I see this research being valuable for advocacy in developing partnerships between environmental organizations and a family of schools, as well as, engaging passionate people from the community, for example organic farmers, to work with students at various stages of an action project that demonstrates environmental responsibility and stewardship. Students will not only be learning knowledge, skills and attitudes as they apply to sustainability, but they will be experiencing the relevance of what they are learning to their life, to possible work they may pursue, and to their play. In this scenario students are agents of their action projects. They are out of the four walls of the classroom, learning from knowledgeable and skilled community members, and the teacher acts as the facilitator of the learning process. Students learn to work together to successfully complete their project and most importantly they are experiencing first hand how they can be part of a sustainable society.

It has been my privilege and pleasure to work with Merve on this thesis project. He has become one of my greatest role models. Merve showed me his passion for living in harmony with nature, his courage to stick to his convictions, and his openness to discuss knowledge and
understandings with others. His story is one that needs to be shared far and wide. I thank him immensely for the insights he has given me and for inspiring me to continue to spread the story of his life work and contributions. Merve is a true environmental hero!
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## Appendix A

*Example of Narrative Analysis: Emerging Themes*

<table>
<thead>
<tr>
<th>General Theme Type</th>
<th>Sample Quote Interview 1 – page, location on page</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Values, beliefs, views, truths learned about environment I was part of the whole big scheme of things. I have a natural aversion to destruction. June 17, Field notes written during interview</td>
<td>Self-understanding</td>
<td></td>
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<tr>
<td>• take no more than you need You can be quite happy to shoot a grouse for dinner, and there are another half a dozen of them between you and your home. You wouldn’t shoot an extra one when you only needed one … Because you only shot one or two at any given time there were lots. You just didn’t over shoot. Dad always stressed that. When I was about twelve he gave me a 22 rifle as a birthday present. I was very excited and I thought, now I can provide meat for the family. My dad taught me how to use it. p.2, 4M I loved to fish as a young kid but I didn’t want to empty the lake of fish, one or two fish, that was fine p. 9, 30M</td>
<td>Strong family influences on his beliefs and ways of seeing the world.</td>
<td></td>
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<td>• wildlife has right to exist Too many people see a toad, for instance, in their garden and they take a shovel and kill it. But that toad has every right to be there! p. 5, 13M</td>
<td>intrinsic value</td>
<td></td>
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<tr>
<td>• environment is paramount definitely do not destroy your environment. That is the key to it all. If you destroy your environment you have nothing! And that is what we are doing. p.10, 34M</td>
<td>Essence of sustainability</td>
<td></td>
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<tr>
<td>• love of nature They both loved the out of doors of course. That is why they located in this area where there was lots of waterfowl on the lake and uncut timber all around them. There was a lot of wildlife here …there was a lot of activity in the way of wildlife and they wanted to be or have the privacy of a fairly good sizeable piece of land where they could do some farming as well. p. 1, 3M I grew up with nature. I have no fear of nature. I used to play with the snakes … I used to wrap them around my neck or wrists like this [shows me]. And they got</td>
<td>Lots of early experiences playing in natural environments, having fun and creating relationships with wildlife at his doorstep. Vivid, pleasant</td>
<td></td>
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<td>to know you! They always crawled to meet you. P 4-8M I had a pet … toad that I played with. When he saw me coming he hopped towards me … he could tell I had a fly. I would catch a fly from the house, put it on my hand, he would see me coming, he would always be watching. I would pick him up, he was fine and I would take him back to where he liked to live ... I had him as a pet for about three years. Then all of a sudden he disappeared. I thought something got him. p 4, 9-11M</td>
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<td>memories.</td>
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<td>● respect nature</td>
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<td>My mom was a dead shot … she would scare the hawks away because they were bad for poultry. She very seldom wanted to shoot a hawk. But poultry was how she was making a living so she would get out her six shooter and bang, bang, bang, bang and the hawk would get the hell out and wouldn’t come back! p 1, 2M I had an egg collection when I was about twelve. I had about 58 species of birds. I did this without disturbing the nest itself. Without chasing the bird away. You waited and you tried to find them when they were starting to build the nest, and you waited until they would lay one or two eggs usually ... she would lay up to four eggs, but she would not miss any. But never take the first one. You never took the first one. P 2-3, 5M I learned at quite a young age that these trees, plants, and flowers were really beautiful things! And they were there for my enjoyment … but don’t destroy! Don’t destroy you see? I used to get very irate when I saw somebody else breaking something down or pulling something up that wasn’t necessary and so on. And you would gradually learn that there were certain weeds and thistles, yes you would pull them out because you wouldn’t want too many of them but you wouldn’t pull all of them! You would just keep them under control. p 6, 19M</td>
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<td>At an early age shows many pro-environmental behaviours. Early development of love of and respect for nature.</td>
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