INVESTIGATING ECONOMICALLY DRIVEN MIDDLE-CLASS PARENTS’ KNOWLEDGE AND CONSIDERATIONS OF FOREST SCHOOL

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Abstract

With the general public becoming increasingly aware of research showing the benefits of connecting with, and spending time in, nature, interest in nature-based early childhood education has grown. I seek to understand how an environmental education program, a forest school, is perceived by a purposeful sample of economically driven parents of school-aged children in Thunder Bay, Ontario. This qualitative research utilizes an ethnographic semistructured interview methodology to explore parents’ knowledge, preconceptions, perceptions, and barriers to enrolling their children in forest school programming. I further examine participants’ myths of nature as expressed through the presence of cultural metaphors that both reflect and influence how participants view and relate to nature. Findings highlight existing opportunities that may be leveraged to connect with these individuals about environmental education as well as where there currently exist gaps in engagement, providing insight for the development of appropriately framed communications to span this divide.
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Dedication

That all three of you, my extraordinary children, were able to share in my final moments at Royal Roads University; and that you, my generous partner Begoña, thought to make it happen has filled me with pride. I dedicate this thesis journey in its entirety to you, my delightful family. It was you who inspired me to reach further. It was you who were patient and supportive throughout. It is you with whom I share the fruits.
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I must acknowledge several people, without whom this thesis might look very different, or not have been written at all. Thank you to my parents; you allowed me the freedom to roam far and wide as a wee lad. I was out of your hair—I was in the woods. Thank you to my family, friends, and the 2010 cohort; I’ve learned invaluable lessons from each of you. Through time spent together, stimulating conversations, challenging collaborations, and of course collective celebrations, you’ve been an important part of my education, and you’ve helped me grow. Thank you to Dr. Rick Kool for making each and every one of us feel an important part in making your dream whole.

I would especially like to acknowledge the guidance provided me by Dr. Liza Ireland. Your enthusiasm for the field of environmental education is addictive and has been inspiring at just the right times. Our shared business backgrounds and appreciation of vision enabled an ease of understanding that has made all the difference.
Chapter 1. Introduction

A Socioecological Divide

Early models of sustainability contained a problematic conceptual separation of the environment, economy, and society; there was some overlap illustrated amongst the three domains, but no comprehensive interdependence (Dale, 2002). In *The Death of Environmentalism*, a public opinion researcher and political strategist point to environmental nongovernmental organizations’ failure to consider socioeconomic concerns as part of an effective approach to solving environmental issues—issues that affect the entire natural world, including our communities and industries (Shellenburger and Nordhaus, 2004). This popular work helped highlight the polarizing effect of a socioecological divide that has become widespread amongst organizations and individuals alike.

Stereotypes have even sometimes been formed to label people based on others’ assumptions of their perspectives. For example: yuppie for the economically focused, and hippie or granola for those who may be more ecologically focused. These labels are judgmentally applied, and seemingly used as heuristics to sort people into groups based on outwardly visible personas or lifestyles. They are also wholly inadequate to accurately describe the existence, complexity, and effectiveness of an individual’s environmental ethic. The definitions of these terms are often misleading, and their use has the effect of energizing a divide between groups or individuals who may share common values, yet possess differing ideologies.

During my introductory courses in my Master of Arts in Environmental Education and Communication (MAEEC) residency at Royal Roads University, I perceived through various
cues, both spoken and unspoken, a disregard and bias towards me, as I didn’t sound or look like an “environmentalist.” As my cohort sat in a circle on the floor, sharing inspirations for joining the program, deeply held beliefs in issues such as climate change, social justice, environmental justice, and radical activism were revealed as motivation. Almost immediately there were tears shed amongst the group: I was feeling like a fish out of water. I hold two science undergraduate degrees and am a self-employed Registered Professional Forester (RPF). I joined the program based on a deeply held personal connection with the natural world and a desire to broaden my career choices. I was attempting to make myself more useful and attractive to the business world, while it seemed my cohort was trying to save the world.

Being in a room full of what I thought at the time to be true environmentalists made my own motivations seem self-serving. I began to believe I didn’t belong, and the surroundings seemed to highlight that I was indeed out of my element; I reconsidered my membership in the cohort. The pursuit of broadening my environmental education in order that it inform my future pursuits nearly ended before it began. If the bias I perceived towards me did in fact exist, that it was based on perceptions of me as an economically driven individual due to preconceptions of my profession is not surprising. What my cohort saw when looking at me may not have fit with their preconception of an environmentally driven individual. Equally important however, was how I was viewing my cohort. I equated sitting on the floor in an emotion-laden, group sharing session with being an environmentally focused individual. This is an unfair and unfortunate equation, as it would appear I equated environmentalism with idealism.

My experience in the opening residency of the MAEEC program illustrated the existence of polarized attitudes and relationships that have developed between those whose emphasis is on
the economy, and those who focus on the environment. The divide, illustrated by my perception of biases between economically and environmentally driven individuals, can threaten effective collaboration on environmental issues that affect both (Shellenberger & Nordhaus, 2004).

Most importantly, within this experience exists a lesson contextually relevant for the research within this thesis. This is that others too, upon wading into environmental initiatives for the first time, may feel out of place, and so may choose not to stay. In the end, my choice to stay in the MAEEC program helped to break down some stereotypical barriers within my cohort, enabling an important learning journey for myself, and allowing me to continue to find ways to encourage all to reconnect to the environment we all share and are a part of.

Inspiration Found

During the first week of residency I was introduced to Richard Louv’s (2005) New York Times best-seller titled Last Child in the Woods: Saving our Children from Nature-Deficit Disorder. The author coined the catchphrase Nature-Deficit Disorder (NDD), describing a phenomenon that negatively affects our children today. Louv (2005) references literature illuminating negative effects resulting from children’s shrinking roaming distances from home, an ever-increasing inaccessibility to natural play-scapes, an increased proclivity for electronic devices in lieu of outdoor play, as well as an increasingly prevalent fear of nature among parents and children. Adverse effects claimed to be associated with NDD include, but are not limited to: attention difficulties, impaired cognitive development, diminished use of the senses, childhood obesity, and an exacerbation of physical and emotional illnesses (Louv, 2005).
Louv (2005) focuses on the importance of access to a variety of nature experiences, and the positive effects on children’s development. One chapter, dedicated to the topic of Natural School Reform, explores positive outcomes associated with place-based learning, where local natural environments are incorporated into lessons; and the concept of eco-schools, ranging from the greening of existing school grounds to a complete immersion of the student in nature (Louv, 2005). The latter concept, often referred to as Forest School (FS) in the United Kingdom, and adopted and used throughout this thesis, describes educational settings that include a broad range of direct interactions with nature. Louv discusses positive effects such as increased physical health, and a reduction of sedentary lifestyles contributing to childhood obesity; increased mental health and well-being through stress reduction; enhanced concentration and sensory skills; an increase in creative play; well-developed socialization skills; and an intimate understanding of one’s surroundings, leading to a deeper understanding of how the earth works and a resultant inclination towards environmental stewardship. Other researchers, Blanchett-Cohen and Elliot (2011) as well as David Orr (1995), suggest that various Environmental Education (EE) programs, including outdoor and nature-focused education programs such as FS, have the potential to remediate negative outcomes of NDD as described by Louv (2005)—all while developing environmental stewards who possess a strong sense of place and belonging within nature.

Louv’s (2005) book, and the research on which it is based, speaks directly to deeply held beliefs about my own development and, as the father of three young children, it holds current relevance to me as a parent. I sense these findings on the importance of spending time in nature for children’s physical, emotional, and intellectual health and development would also be of
interest to my like-minded friends with young children. While many contemporary parents are highly engaged with their children’s development, research suggests many are also unaware of the potentially negative effects of their children’s increasing disconnection from nature and natural settings (Maller & Townsend, 2011; Mayer, Frantz, Bruehlman-Senecal, & Dolliver, 2009; Zaradic & Pergams, 2007). Although Louv’s (2005) book has created significant public attention towards research on the benefits of experiences in natural settings, it did not seem to be reaching my social circles: middle-class white-collar professionals and business people who are also parents of young school-age children. In casual conversations with some of these friends, I began to mention research on the cognitive developmental benefits offered by experiences in nature (Berman, Jonides, & Kaplan, 2008). After introducing the concept of FS, I would always frame my summary comments with the phrase “nature makes your kids smarter.” In each instance, my circle of friends immediately expressed an interest in having more information. This anecdotally suggested that my comments were appropriately framed to garner the interest of economically driven individuals who equate smarter kids, kids who perform better at school, with an economically brighter future (Lakoff, 2010).

I suspect that while Louv’s book is highly available, capturing the attention and engagement of this middle-class audience of parents towards it, and having them involve their own children in nature experiences through education, would require messaging that targets this groups’ specific values (Lakoff, 2010). This suspicion has fueled my desire to look into parents’ acceptance of more experiences in natural settings as part of their children’s regular school program, and even the plausibility of marketing a full-time FS to parents of preschool and elementary-school-age children in Thunder Bay. While my experience suggests that there is
limited knowledge of the benefits of nature experience amongst these parents, I seek to determine if this is in fact the case. FSs have only recently gained widespread media coverage here in Canada and as such I do not expect the general population to have much familiarity with them as an educational approach. I will also investigate the barriers to enrolment in such programs that might exist for parents, including perceptions about, and biases toward environmentalism or EE. I am interested in determining if barriers to participation for these parents include that which I myself experienced in my early weeks at MAEEC. In other words, would my social circle of middle-class white-collar professionals consider the FS concept to be an initiative more appropriately suited for the children of environmentally focused parents, potentially limiting their participation based on biases rather than real knowledge of this educational approach?

By answering these questions I hope to assess the market in Thunder Bay for more outdoor experiences in current schools, and possible enrolment in a full-time FS. I may also gain insights into how the marketing for these initiatives would best be structured or messaged to attract as wide an audience as possible—one that includes my social circles of like-minded economically driven people who are also parents of young school-age children. Given that parents make decisions as to what early childhood education and school experiences their children have, it is important to learn how parents think about FS educational opportunities and how to effectively reach the decision-makers.

Waite (2011) examined attitudes, practices, and aspirations of practitioners and children regarding outdoor experiential opportunities in educational and care settings for children between 2 and 11 years of age. However, research regarding parents’ perceptions of, and
barriers to, participation in FS appears to be missing. In this study I attempt to rectify this omission by focusing on researching my social circle of middle-class, largely white-collar professional, economically driven, parents of preschool and elementary-school-age children and their knowledge and perceptions of FS.

**Research Focus**

The core purpose of this research is to investigate potential barriers that may be encountered by some parents when making decisions regarding their children’s enrolment in FS, or programs offering an expanded use of outdoor natural settings. An additional marketing need is that of discerning an appropriate language with which to communicate to this component of the general population. Therefore it is beneficial to consider dominant paradigms, or worldviews, in order that this group’s existing values may be addressed and leveraged in a language that they are accustomed to and to which they are receptive (Pike et al., 2010).

**Research Question**

To achieve this, I asked the following research question: What are the potential barriers for a select group of economically driven, white-collar parents of preschool and elementary-school-age children in Thunder Bay to enrolling their children in FS? Encompassed within my research question, and of particular interest, was the following subquestion: Do study participants exemplify a myth of nature that may be a barrier to their consideration of FS programs?

**Research Context**

*Setting.*
The city of Thunder Bay, Ontario, sits on the shore of Lake Superior, nested in the Nor'wester mountain range. It lies between the Great Lakes–St. Lawrence forest to the south and vast Boreal forest to the north, an island in a sea of forests approximately 700 kilometres away from the next Canadian city of comparable size. Within the city there are several choices for enrolment in preschool or daycare facilities: home-based private, professional private, aboriginal head start, municipal, Waldorf daycare and kindergarten, Lakehead University childcare, Confederation College children and family centre, as well as various home-care options. Elementary school options include public and Catholic school boards, as well as a First Nation high school. There also does exist a little-known part-time FS in the township of South Gillies, located approximately 45 kilometres from Thunder Bay, which would not be considered local. With this extensive forest context, it is surprising that there is not a widely recognized local FS program for preschool or elementary-school-age children in Thunder Bay. However, the city’s history is one of development via natural resource extraction, which I suspect may have sustained an anthropocentric worldview amongst the general population, supporting a utilitarian attitude towards nature (Verhagen, 2002).

Demographics.

The past seven years has seen large-scale mill closures in Northwestern Ontario and a shift from resource-based industry to high-tech and research-based employment. This has brought many new immigrants to the city for purposes other than natural resource extraction (Di Matteo, 2010). Thunder Bay is also undergoing a cultural shift. Among the non-aboriginal population there are fewer births than deaths and the majority of educated youth are leaving the region for employment elsewhere (Di Matteo, 2010). The aboriginal component of the city’s
general population, currently 8%, is expected to account for 15% by 2031 (Di Matteo, 2011; Moazzami, 2003). Large numbers of aboriginal youth are relocating to the city for education, with some experiencing difficulty with the rapid transition from isolated reserves to an urban centre (Richards & Vining, 2004). This presents the city with a unique challenge: accommodating for a major demographic transition to a population that is statistically undereducated (Jankowski & Moazzami, 1995) and overrepresented in terms of both criminal activity and victimization (Luo, 2012; Monchalin, 2012). While Thunder Bay’s demographic shift from a labour-intensive workforce to a service- and professional-based economy, and an increased migration of aboriginal youth from remote communities, may represent a unique set of challenges, together they also highlight opportunity.

With the changing face of Thunder Bay, growth in both professional service careers and research and development facilities also brings a change in attitude. There has been a visible rapid expansion of the enlightened environmentally minded and with it an interest in social alternatives that until lately were seldom seen in Thunder Bay. Food security, non-motorized active transportation, green energy generation and conservation, community greening, and healthy lifestyles are the focus of attention at city hall as well as in schools and homes throughout the city. City parkland and unspoiled natural areas blend seamlessly in an interconnected web throughout Thunder Bay. Leveraging the availability of these areas to increase citizens’ well-being has become a municipal government mandate.

I believe the change in demographics and associated acceptance and interest in more natural lifestyles, combined with a consideration that natural environments are an effective bridge for new aboriginal citizens, may support the advent of a full-time FS facility in Thunder
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Bay (Friedel, 2011). My long-time entrepreneurial experience, combined with a deep personal belief in the benefits of FS, leads me to believe that the development of such a facility in Thunder Bay may be the most effective way for me to contribute to the field of EE. The facility as envisioned would service the existing community at large through a full-time FS program, while providing further EE support to the public, Catholic, and First Nation school boards, as well as to parents seeking extracurricular opportunities. The facility may also benefit aboriginal youth and the city at large, by eventually providing a transitional educational environment to help students with the difficult move to Thunder Bay from remote communities (Friedel, 2011).

**Desired Outcome: Bridging the Knowledge Gap**

A desired outcome of this study would be to leverage the claimed benefits in current research of developmental and remedial benefits of nature experiences to encourage parents’ demand for outdoor experiences in natural settings as part of their children’s regular school program. This qualitative investigation into some parents’ current knowledge of FS and potential barriers to enrolment may also inform poststudy communications tools that could deepen understanding of the claimed restorative and developmental health benefits available through nature experience. An embedded investigation into participants’ metaphorical language and associated dominant paradigms is essential in supporting poststudy communications tools and promotions for a future FS program in the area of study (B. Larson, 2011). In cases where there is some knowledge of the FS concept, there may also exist a perception among parents that these programs are more suited to a fringe element of the population. Overall, this research may help inform what present perceptions about FS are amongst this research group in Thunder Bay,
and how they may be reframed if necessary (Lakoff, 2010). It is my hope that these findings be leveraged to increase both demand for an expansion of outdoor educational experiences in natural settings in current school programs, and participation in FS through framing that alleviates potential misconceptions that may be limiting more widespread support and further supporting a socioecological divide (Lakoff, 2010).

Glossary of Terms

The following working definitions are applied to several words and terms used throughout the body of this thesis:

**Anthropocentric.**

A human-centred value system, or worldview, where humans are considered separate from and dominant over the natural environment.

**Ecocentric.**

A nature-centred value system, or worldview, where humans are considered to be an interconnected element of nature.

**Environmental Education.**

Environmental education teaches children and adults how to learn about and investigate their environment, and to make intelligent, informed decisions about how they can take care of it.

**Forest School.**

For a locally relevant definition of the term I’ve turned to the *Child and Nature Alliance of Canada* website, which states, “Forest School is an educational approach that fosters a connection to, and knowledge of, the natural world through repeated, regular access to local
woodland areas, parks and outdoor classrooms through the lens of play-based and child-directed learning.” (http://childnature.ca/forestschoolcanada) It is a form of education in which learning takes place primarily in the outdoors. FS refers to early, primary, and secondary years programs, with the ratio of time spent in outdoor to indoor learning environments varying from program to program. Early years programs are often commonly referred to as forest kindergartens, forest preschools and nature kindergartens. For the purposes of defining FS to participants of this research when necessary, I focused only on the very general underlying concept that FS is an outdoor classroom. This general explanation was given in an attempt to minimize influence on participants’ immediate reactions to the FS concept in cases where there was no preexisting knowledge.

**Natural Environment.**

Natural environment is used to denote places where plants, animals, geological features and processes may exist and natural processes are not drastically directly altered by human intervention on a continual basis, including parks and forested areas.

**Nature.**

The usage of the word nature varies throughout this work depending upon both the speaker’s worldview and the context. At times it is referring to nature on earth in the broadest sense, incorporating the material world and all life, reflecting an ecocentric worldview. Other times it is referring to nature on earth in a more limited sense, reflecting an anthropocentric worldview. Occasionally it is used interchangeably with natural environment, referring to nature as a *place* like parks or forested areas.
Chapter 2. Literature Review

At a point in time when Western society’s relationship with the natural environment could be described as strained at best (Dale, 2002), the future of environmentalism is in the hands of children, many of whom Larson et al. (2011) found are being raised with a dissociation from and fear of natural environments. Claims around the loss of benefits to children normally derived via engagement with natural environments constitute a growing concern across North America. This concern is perhaps best demonstrated by the groundswell of interest and support for initiatives generated since Richard Louv’s (2005) best-selling book, Last Child in the Woods, highlighting the effects of what he has termed nature-deficit disorder (NDD). Since the book’s release, much has taken place in response.

International Context

The Children & Nature Network in the United States has identified 115 grassroots initiatives campaigning to reconnect children with nature through efforts such as the greening of local daycare and school grounds. In the United States, many school districts are implementing education initiatives under the banner, No Child Left Inside. The initiative is championed by a coalition of the same name, comprised of over 2,000 business, health, youth, faith, recreational, environmental, and educational groups. The coalition works in support of the proposed federal bill, the No Child Left Inside Act of 2009 (http://bb.cbf.org/page.aspx?pid=956, retrieved Sept. 26, 2013). Meanwhile, other pop-culture books such as Your Brain on Nature (Selhub & Logan, 2012) and Louv’s (2011) follow-up The Nature Principle are now often found prominently displayed in high-street bookshop windows.
In the United Kingdom governmental support of environmental education (EE) has led to widespread recognition of the developmental benefits of nature experience by both educators and parents (Nicol, Higgins, Ross, & Mannion, 2007; Waite, 2011). A popular form of EE in the United Kingdom is forest school (FS) (Swarbrick, Eastwood, & Tutton, 2004). Under governmental support, and with guidance from the *Learning Outside the Classroom Manifesto* (Department for Education and Skills [DFES], 2006), institution development, practitioner training, and general knowledge of the benefits has resulted in a marked increase in enrolment in FSs. With the growing awareness of the benefits of FS, government-supported EE continues to mature in the United Kingdom.

**Canadian Context**

Until recently, despite significant promotion by numerous parties, EE has had trouble making significant inroads into the traditional formal school system in Canada (Canadian Environmental Grantmakers’ Network [CEGN], 2006). In Ontario this was demonstrated as recently as 2000, by the Ontario Ministry of Education’s policy decision to remove environmental science as a stand-alone course, effectively restricting the amount of associated outdoor education students would experience (Puk & Behm, 2003). An attempt to correct this oversight was made in the more recent document *Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools* (2009), elevating the importance and role of EE in the system. This policy still calls for an integrative approach, but now includes an acknowledgement that EE in Ontario schools is a long-term process that will evolve with time.
School boards in major Canadian cities are considering research findings and recognizing the economic and social benefits of reconnecting their professionals, students, and staff with nature through the greening of their school grounds and integration of the outdoors into existing curriculums (BC Ministry of Education [BCED], 2011; Dyment, 2005). Paralleling this new development is the emergence of a small number of FSs in Canada (Blanchet-Cohen & Elliot, 2011). These schools are thus far focusing primarily on preschool-age children, delivering a traditional British model of FS that includes a heavy focus on the outdoor component of daily activities. Hallmarks of this model are freedom to play, exploration, and interaction within natural settings to enhance cognitive development, neuro-physiological development, motor skills, social skills, physical health, and children’s sense of well-being (Bird, 2007).

A variety of EE-based initiatives have come into effect in Canada since Last Child in the Woods was released in 2005. Some of these initiatives refer directly to Louv’s book and the term nature-deficit disorder (NDD) as inspiration for program development. Others refer commonly to the core propositions of connecting all children to nature within their educational settings. The level of nature experience provided through these initiatives ranges from the greening of daycare and school grounds, to providing educators support in bringing nature into the classroom, to taking the classroom outdoors on a more regular basis, to making the local natural environment the classroom.

News of nature-based education initiatives is gaining national mainstream media attention. A July, 2013 article entitled This is Not a Field Trip, by Rosemary Westwood in Maclean’s magazine, describes parents’ interest in the “‘avant-garde’ to Canadians” concept (http://m.publishing.rogers.com/macleans/share/2013-24/07b_soc_photoessay.html). A June,
2013 article titled *Guelph Outdoor Preschool Takes the Classroom to the Meadow*, by Andrea Gordon in the *Toronto Star*, describes the new preschool, and others like it in Ontario, as well as the underlying FS concept (http://www.thestart.com/life/parent/2013/06/07/guelph_outdoor_preschool_takes_the_classroom _to_the_meadow.html). The same journalist, Andrea Gordon, further investigates the concept in *Forest Kids: Why the Modern Classroom is Moving Outside*, an e-book available through the *Toronto Star* (www.stardispatches.com). In October, 2008 CBC’s *The National* provided coast-to-coast coverage of the launch of the *Carp Ridge Forest Pre-School* in the Ottawa Valley (http://www.cbc.ca/news/canada/ottawa/kids-to-face-embrace-elements-all-day-long-at-outdoor-preschool-1.767663). More recently, in April, 2013, CBC television also provided coverage of Atlantic Canada’s first FS, the *Tír na nÓg Forest School* for preschoolers located in Roachville, New Brunswick (http://www.cbc.ca/news/canada/new-brunswick/sussex-area-pre-school-launches-atlantic-canada-s-first-forest-school-1.1410790).

The *Child and Nature Alliance of Canada* (CNAC) was launched in 2009. This registered charity is comprised of organizations and individuals with the common aim of connecting Canada’s youth and families with nature and the outdoors (http://childnature.ca/about-alliance). The *Forest Schools Canada* (FSC) project is a national education initiative of the CNAC. Launched in 2012, FSC seeks to develop a community of practice to support educators who are in the process of program development through training, and also to provide a network of resources for those who already are running FS programs. FSC lists several types of programs that it considers to fall under the umbrella term of FS: forest preschools, urban forest preschools, nature kindergartens, Grade 2 forest schools, and after
school forest programs. The amount of time spent in an outdoor classroom or woodlot varies from program to program (http://www.forestschoolcanada.ca/home/about-forest-school/types-of-forest-school-programs). In Sooke School District in Sooke, British Columbia, Nature Kindergarten launched in 2012, becoming the first government-funded FS for school-age children in Canada. The program caters to kindergarten-age children and offers opportunity for children to explore their natural environment combined with indoor play-based learning (http://naturekindergarten.sd62.bc.ca). Also in British Columbia, Fresh Air Learning in North Vancouver offers full-year private programs for 4- to 6-year-olds, providing a forest setting for exploration in which children’s interests lead daily sessions (http://freshairlearning.org).

In addition to the highlighting the growing interest in FSs internationally and in Canada, this literature review will look into the underpinnings of Louv’s propositions that there are benefits offered through nature experience, as well as potential factors that may influence parents’ perception of the value of nature-based educational experiences for their children. I will look into peer-reviewed research around the claimed remedial and developmental benefits of nature experience, focusing on the psychological effects—both what was available at the time of Louv’s (2005) work, and since. This is followed by an examination of: parents’ education expectations, priorities, and desires for change around schools today; the benefits derived from EE; and the use of metaphorical language.

**Remedial and Developmental Benefits of Nature Experience**

A literature review of the specific benefits claimed about nature experience revealed some early research into this psychological aspect of human life. Much of the research to date
claiming health benefits to be available through interacting with natural environments has been largely correlative in nature (Scrutton, 2011). Findings of this research identify the psychological benefits of subjective emotional well-being (Hartig et al., 2010), attention restoration (Kaplan, 1995), and cognitive development (Berman et al., 2008).

Roger S. Ulrich, an architect and influential healthcare design researcher, sought to test claims made by renowned 19th century American landscape architect Frederick L. Olmsted that nature provided “tranquility and rest to the mind” (Olmsted, 1870). To do this, Ulrich (1979) conducted research contrasting the self-reported affective states of two groups measured before and after viewing slides of either natural or urban landscapes. Participants’ affective states were measured using the Zuckerman Inventory of Personal Reactions Scale (ZIPERS). Ulrich’s published findings claimed there indeed was a significant difference between treatments regarding participants’ levels of psychological well-being. His results suggested slides of urban landscapes deteriorated subjects’ pretest emotional states, and slides of natural landscapes improved pretreatment emotional states. Shortly after these findings Wilson (1984) bolstered Ulrich’s research findings with his theoretical claim that humans have a natural affinity and gravity towards the natural world as a result of evolutionary development within the boundaries of the natural world.

In 1991, Ulrich revisited his 1979 research. This time he essentially duplicated his methodology but for the addition of a battery of physiological measures of stress. He further determined that previously found effects on emotions from natural and urban landscapes were also quickly showing up in subjects’ physiologies (Ulrich et al., 1991).
Meanwhile, Hartig, Mang, and Evans (1991) conducted research in support of both Ulrich’s findings suggesting response to the natural environment is affective in nature, and earlier research by Kaplan and Talbot (1983) suggesting response to the natural environment is cognitive in nature. These researchers ran two experiments similar to the original ones, this time measuring the regeneration of attentional capacity through direct exposure to nature, as opposed to landscape slides.

The first experiment was a quasiexperimental design because random assignment of participants to the various treatment regimes wasn’t possible. It measured self-reported affect and proofreading abilities between three groups, after three treatments. Treatments were four to seven days of wilderness backpacking, nonwilderness vacation, and a no-vacation control group. Results of this experiment utilizing direct exposure to nature showed that the wilderness backpackers had a statistically significant increase in overall happiness and ability to focus on proofreading tasks; this further supported Ulrich’s original findings.

The second experiment, a true experimental design, involving random assignment of individuals to three treatments: nature walk, urban setting walk, and a relaxation condition. The nature walk group showed a statistically significant increase in overall happiness as seen in ZIPERS positive affect scores, lower ZIPERS anger/aggression scores, and cognitive recovery from induced mental fatigue; this further supported Kaplan and Talbot’s (1983) earlier work.

Hartig et al. (1991) claimed the combined results of these two experiments built upon earlier work, providing stronger evidence that experiences in nature have restorative outcomes. The researchers postulate this was in part because experiences in nature facilitate recovery from mental fatigue. The group identified, as an implication of their findings, that restorative effects
might be found in a wide range of natural environments, and suggested further research be done to explore differences between various natural environments.

Kaplan (1995) following the lead of Hartig et al. (1991), looked to integrate conflicting theories around causation of the agreed-upon benefits. Ulrich (1979) emphasized stress reduction while Kaplan and Talbot (1983) surmised that directed attention, such as that called upon in urban settings, is effortful, can be depleted, and that natural settings provide replenishment due to an evolutionary familiarity and affinity. Kaplan (1995) introduced *attention restoration theory* (ART) and proposed that the previously unrelated research on stress and attention fatigue were in fact related. The researcher claimed what differed were the causes of stress and fatigue, but that both were subject to replenishment through nature.

Since the introduction of ART there has been a large body of research further testing the restorative effects of natural environments on both psychological and physiological resources. Many studies offered Kaplan’s (1995) theory as a possible explanatory mechanism (Berto, 2005; Berto, 2007; Hartig, Kaiser, & Bowler, 2001; Kaplan & Berman, 2010; Perkins, Searight, & Ratwik, 2011; van den Berg, Hartig, & Staats, 2007; Wells & Evans, 2003).

Much of the post-ART research has taken place since Louv’s (2005) book, and often considers broader benefits of interactions with the natural environment than simply an attentional restoration role:

Theories about learning and personal development provide an important complement to theories about psychological restoration in the effort to understand how nature experience serves health. People may benefit from experiences in natural environments not only by restoring depleted resources, but also by acquiring new capabilities. With activity in a
natural environment, a person may correct a mundane deficit, such as directed attention fatigue, or a more serious one, such as learned helplessness. In either case, the activity may segue into a process of development and growth that does far more than simply correct the deficit (Hartig et al., 2010).

Berman, Jonides, and Kaplan (2008) published research comparing the restorative effects of interactions with natural versus urban environments. Their empirical research was comprised of two controlled experiments. The first investigated how interactions with both urban and natural areas affected cognitive performance on a backwards digit-span test. The second tested Kaplan’s ART with an attention network test (ANT) to isolate attentional function types. Their respective results showed that when isolated from other effects, performance on the cognitive function test improved after participants walked in nature. Secondly, when using the ANT to isolate the three different attentional functions of alerting, orienting, and executive functioning, only executive functioning, the function requiring directed attention, showed improvement, and only after viewing the set of nature pictures. The researchers claim these results support ART and “demonstrate the restorative value of nature as a vehicle to improve cognitive functioning” (Berman et al., 2008).

Johnsen (2011) hypothesizes nature experience is needed by all, and that while the effects may provide psychological well-being for those suffering from attention fatigue, more research is necessary to determine its capacity to provide well-being in those experiencing serious common psychological conditions such as ego depletion or depression. Other research has suggested access to natural environments to be beneficial in the treatment of dementia in the aged (Aspenson, 2011), attention deficit hyperactivity disorder in children (Faber Taylor & Kuo,
2011; von Kampen, 2011), autism in children (von Kampen, 2011), and a variety of other mental health and physiological issues in both adults and children (Bird, 2007; Herzog & Strevey, 2008; Li et al., 2007; C. Maller, Townsend, Brown, & St Leger, 2002; C. J. Maller, 2009; Roe & Aspinall, 2011).

**Education Expectations**

A notion that appears to be supported through numerous public opinion surveys looking into parents’ feelings on public education is that parents want public schools to be all things. In the 2009 Phi Delta Kappa Gallup Poll of the Public’s Attitudes Toward the Public Schools of America, parents demonstrated they are far from unanimous with regards to what improvements should be made to kindergarten through Grade 12. The single most common answer for 17% of those polled was better teachers. This was closely followed with as many as 10% of parents believing that schools should get back to the basic curriculum of reading, writing, and arithmetic, commonly referred to as the three Rs. Education concerns of the remaining 73% were spread evenly across 17 other answers ranging from greater school funding to year-round schooling (Gallup, 2009). This diverse spread of answers mirrors results seen on other recent national surveys. While several core subjects were raised again and again, EE specifically did not appear on this list or any others reviewed here.

In 2013 the American Federation of Teachers commissioned Hart Research to determine what America’s public school parents want from public education. The results of a survey of 1,003 public school parents revealed five things they believed schools should do to prepare their children for postsecondary education and careers: improve education in English, history, science,
and math (81%); develop critical thinking and reasoning abilities (68%); provide a safe and secure environment (80%); educate students in civics (61%); and address social, emotional, economic, and health needs (54%). These percentages display considerable overlap regarding parents’ expectations of public schools, across a diverse range of outcomes. However, when asked elsewhere in the same poll, only 18% of parents say schools should focus more on math and reading, while 74% expect a more balanced curriculum. Further dissonance is demonstrated within the same survey with 19% more parents believing public schools’ primary focus should be on teaching the whole child, including their emotional and social development, than those that believe the primary focus should be the basics of English, history, science, and math (Hart Research Associates, 2013). Here too it can be seen that parents seem to expect public schools to provide the basics when asked one way, and to educate the whole child when asked another way.

In the 2013 PDK/Gallup Poll of the Public’s Attitudes Toward the Public Schools of America (http://pdkintl.org/programs-resources/poll/), when Americans were asked to consider which subjects studied in school have proven to have been the most valuable to them in their lives, respondents replied: math (34%), English (21%) and science (12%). These results are largely unchanged since the same question was asked in the 2002 poll, illustrating a sense of importance regarding these core subject areas. When asked to describe desired outcomes from the public school system, the same respondents selected critical thinking as the most important skill (80%), followed closely by communications (78%). With regard to testing, 75% believe that testing either hurt or made no difference. The results of this survey seem to suggest a belief in the importance of soft skills development in schools, but not at the expense of the basics.
When asked of their satisfaction levels about the quality of public education in America, respondents replied very satisfied (10%), somewhat satisfied (30%), somewhat dissatisfied (27%), and very dissatisfied (29%), continuing a response trend that has remained unchanged since 2001. However, when asked directly about public education in their own communities, 53% of respondents gave their local schools a grade of A or B (Gallup, 2009). These results suggest parents’ own positive experiences with public education are not influencing their perceptions of public education elsewhere.

A 2013 survey conducted jointly by the Pew Research Center and *Smithsonian* magazine, *Public’s Knowledge of Science and Technology*, reveals the public underestimates how well American high school students perform on standardized science tests compared with students in other developed nations. Supporters of strengthening science, technology, engineering, and math (STEM) warn that American students are falling behind other nations in technical subjects, and survey results concur, with 44% believing that 15-year-olds in other developed nations outrank American students in knowledge of science. The reality however is much different: American students are ranking 17th out of 34 developed nations on standardized tests for the Program for International Student Assessment (PISA). This again suggests that parents do not have an accurate understanding of the state of public education on which they are commenting. The same survey asked what subject kindergarten to Grade 12 schools should emphasize more these days. Respondents replied math (30%), English (19%), science (11%), and history, social studies or government (10%) (Pew Research Center, 2013). This mirrors very closely the 2013 PDK/Gallup responses to which subjects have proven most valuable to individuals in their lives, and also highlights the perceived importance of the three Rs.
A British Columbia Ministry of Education document titled “BC’s Education Plan Engagement: What You’ve Said” published the results of a seven-month public discussion forum on education planning. On the topic of curriculum, public input suggested a reduction to the number of expected curriculum outcomes, as well as the inclusion of competencies relevant to success in a dynamic environment. It was suggested that these new competencies should not come at the expense of foundational skills such as reading, writing, and numeracy. A large emphasis was placed on the importance of technology education such as digital literacy, critical analysis of online content, and digital citizenship. However, once again it was believed that the teaching of these skills should be balanced with the teaching of the three Rs. Respondents further suggested that the use of digital technologies in schools should be minimized so as to not de-value the role of teachers; isolate students from one another; lead to decreased physical, emotional, and mental health (British Columbia Ministry of Education, 2011).

It is not terribly surprising that parents in these surveys are not unified in their views about what priorities for public school should be. There exists in most communities a wide range of social classes; each of them comes carrying expectations of the outcomes of education for their children. Middle-class parents surveyed tend to value social growth and development of a well-rounded individual, while working-class and poor parents surveyed often prefer that schools provide core academic functions engaging students with practical job skills (Lareau, 2007). Regardless of the reasons, all of these studies illustrate the burden of conflicted expectations being put upon our public school systems. On the one hand, parents state the concept of educating the whole child is desirable—developing critical thinking and reasoning skills while tending to children’s social, emotional, and physical health needs. On the other
hand, parents simultaneously state none of this should take place at the expense of the three Rs. In order to achieve a balance for these parents, the trick of course will be to bring all of this together.

**Benefits of Environmental Education**

Formal education in the Western world today is largely based on the Cartesian method of analysis—a viewpoint that separates mind and body and sees all objects as separate from one another (Ireland, 2007; Orr, 2004). This philosophy of dualism has promoted a reductionist approach in the field of science where fragmentation has encouraged the creation of, and division between, more narrowly focused disciplines (Robinson, 2011). Our public education system mirrors this trend by promoting a narrow, linear, mechanistic focus over a broad, integrative one. Linear thinking evident in the pedagogical approach, hierarchy, and structure of current public education institutions reinforces the dominant anthropocentric paradigm that we are separate from and dominant over the natural environment (Dale, 2002; Ireland, 2007).

This narrow view of education as discrete disciplines, objects, and sets of objects limits our knowledge of systems, recognition of our interdependence with the natural world, and understanding of the emergent properties present when complexities are viewed in their whole state (Morrison, 2008). Without consideration of emergent properties there can be no true ecological understanding (Gunderson & Holling, 2002). Through a mechanistic viewpoint the true complexity of an object is seldom recognized, and thus not considered in a truly effective manner (Robinson, 2011). Systems perspectives, in which things are viewed within their context, and with consideration given to their antecedents and dependents, are not predominant
A reintegration of morals and values with objects under scrutiny and the process of analysis of said objects is required to develop a true understanding and respect for the importance of ecological systems (Orr, 1996).

We cannot solve the problems caused by industrialization with the same type of education that supported their development; reductionist thinking must be replaced with divergent, systems thinking to solve today’s problems (Dale, 2002; Orr, 1995). To quote Albert Einstein, “The significant problems we face cannot be solved at the same level of thinking we used when we created them” (Calaprice, 2000). It is, therefore, necessary to be aware of the need for educational reform. Orr (2004) called for a shift of the core fundamentals of education to promote an understanding in learners that they are part of natural systems, and for educators to remember that context of learning is as important as content:

We need to help overcome the disciplinary narrowness and the aloofness characteristic of academic institutions by immersing students, kindergarten through to PhD, in the natural environment … cultivate mindfulness by slowing the pace of learning to allow a deeper kind of knowledge to occur and teach students that there are some things that cannot be known or said about a mountain, or a forest, or a river—things too subtle or too powerful to be caught in the net of science, language, and intellect … (Orr, 2004, p. 89).

EE facilitates education reform based on the environment as an integrating context (Chawla & Escalante, 2007). EE has been described as education in, about, and for the environment (Palmer, 1998). The Alberta Environmental Education Framework (Ireland, 2013, p.11) more specifically defines EE as:
A learning process that helps us: understand how ecological and social systems and processes are interdependent and influence personal and collective wellbeing; value the significance of biological and cultural diversity as well as diverse perspectives in developing social, cultural, global and environmental responsibility; contribute positively in furthering a sustainable society through social, cultural, global and environmental responsibility by fostering attitudes, motivation, and commitment to make informed decisions; and developing investigation and evaluation knowledge and skills and action competence through systems thinking and futures and design thinking.

EE promotes a broader sense of self-awareness incorporating the interconnectedness of the entire natural world; it includes broader, divergent, biocentric views, methods, morals and values (Orr, 2004).

EE programs that take place in a natural setting have the added value of a host of physiological and psychological benefits including reduced stress levels and attention restoration contributing to improvements in students’ academic achievement and personal feelings of well-being (Berto, 2005; Kaplan 1995; Thayer & Sternberg, 2006). With respect to academic achievement, schools that use the natural environment as an integrating context, such as FS, have seen students improve in reading, writing, math, and social studies (Lieberman & Hoody, 1998). In supporting research, findings from the government of Washington State shows K–12 students involved in EE also demonstrated strong improvement in math and science, and lesser improvement, but improvement nonetheless, in social studies, and language arts (Wheeler & Thumlert, 2007).

**Metaphorical Language**
Given the clear benefits of EE and its potential to meet parental educational expectations, it is important to consider potential parental barriers to supporting EE or FSs as a desirable educational approach. Our most readily available window into people’s attitudes to nature, dominant paradigms and associated values are the nuanced embedded metaphors of the language they choose to use while answering questions, or talking generally about a topic under consideration (Lakoff, 2010). As some parents consider the FS concept as an alternative for their children, presumably based on their values and paradigms, I have attempted to gain an understanding of the potential barriers that may exist and may be impeding FS programs as a viable choice; understanding the myths of nature held by parents is also of particular interest and relevance when examining whether or not FS is seen as a viable option for their children. I have sought awareness of parents’ knowledge and perceptions of the general FS concept through asking direct questions about this topic. I have also sought understanding of how these parents think about and value nature, or what myths of nature they may relate to, through the nuanced use of metaphors embedded in their language as I ask about their personal nature experiences. “Every age has its own unique view of nature, its own interpretation of what the world is all about. Knowing a civilization’s concept of nature is tantamount to knowing how a civilization thinks and acts” (Rifkin, 1985).

The embedded metaphors of a culture-sharing groups’ language are tell-tale signs offering a glimpse into their myths of nature (Lakoff, 2010), and the myths of nature that these groups hold true are reflective of dominant paradigms influencing how they decipher and relate to the natural world (Gunderson & Holling, 2002). A society’s dominant paradigms, myths of nature, and associated embedded linguistic metaphors are interdependent, yet have the effect of
reinforcing one another (Dale, 2002; B. Larson, 2011). Larson (2011) refers to this system of reinforcement as feedback metaphors. As the aforementioned interdependence suggests, the resultant dominant paradigms further influence, shape, and reinforce the metaphors of a groups’ language (Dale, 2002; B. Larson, 2011).

Understanding a group’s dominant paradigms informs us of what their current values, perceptions, and visions of reality are, thus enabling us to infer how they may have been formed and how they may influence decision-making (Capra, 1997). Dale (2002) offers describes several current prevalent socio-economic dominant paradigms: exploitist paradigm – where growth is inherently good, and limitations can be transcended by human knowledge and technology; utilist paradigm – where limits imposed by the carrying capacity of the planet are acknowledged; and integrist paradigm – that recognizes interdependences between human and natural systems, and embraces uncertainty and unpredictability.

Dominant paradigms influence daily decisions, receptiveness to new information and ideas, and affect what people will or won’t work towards (Dale, 2002). Through understanding people’s values we may gain insight into what motivates them to act, as well as knowledge of where people are currently positioned in their thinking (Lakoff, 2010). By speaking to people through language they recognize, and linking to values they already hold, we may communicate new ideas and concepts, like FS, more effectively (Pike, Doppelt, & Herr, 2010). Understanding a culture-sharing groups’ current values, perceptions, and visions of reality may reveal leverage points for communicating about and encouraging understanding and acceptance of other groups’ value systems (Dale, 2002; Gunderson & Holling, 2002; Koltko-Rivera, 2004; Mathews, 2010). Inversely, a society’s dominant paradigms, myths of nature, and associated metaphors also hold
the potential for creating significant barriers to recognizing the value of environmental education and the development or growth of a sustainability mindset, potentially limiting acceptance of new concepts such as FS.
Chapter 3. Methodology

Qualitative Research

This research seeks to understand how an environmental education (EE) program, a forest school (FS), is perceived by a purposeful sample of economically driven parents of school-aged children in Thunder Bay, Ontario, and to inform us of their present knowledge of, potential experience with, and preconceptions about FSs. While this research speaks directly to parents about perceptions and barriers as they relate to enrolling their children in FSs, a wider lens also informs it—one that considers participant’s language, dominant paradigms, and associated metaphors that inform how participants relate to and understand the natural world. It aims to discern this population’s current understanding in a manner that also provides insight into how perceptions, if any, of FS may be being influenced by dominant paradigms. Qualitative research can provide the deeper understanding that is required by describing parental perceptions in rich detail, providing me the grounding from which I may conduct further informal research and analysis supporting the design, development, and implementation of a future FS (Creswell, 2007; Seidel, Friese, & Leonard, 1996). The results of this investigation could provide an appropriate context within which future FS concept and marketing communications would be best received by these participants (B. Larson, 2011; Tesson, 2006).

Ethnographic Approach

This qualitative research utilizes an ethnographic semistructured interview methodology. Ethnography refers to a qualitative design where the patterns of values, behaviours, and beliefs
of a culture-sharing group, in this case some parents of preschool and elementary-school-age children in Thunder Bay, are described and interpreted by the researcher (Creswell, 2007).

Semistructured interviews, as a qualitative method of inquiry, have been chosen as a best fit for the type of data that is sought. Open-ended answers to open-ended questions are desirable in this study as I am looking for naturally emergent themes best illustrating participants’ preconceived notions and beliefs, if any, around FS (Ireland, 2007).

**Research Participants**

The research participants are parents of preschool and elementary-school-age children in Thunder Bay, Ontario, who fit an economically driven, white-collar demographic. I reside in Thunder Bay with my preschool and elementary-school-age children, and as such have access to numerous friends and acquaintances within that demographic. As members of my own social circles, many are professionals and businesspersons. Sampling from this population constitutes a sample of convenience satisfying the parameters of research stated. This group of both younger and older parents has a variety of available local preschool care and elementary school options, none of which currently could be described as a local FS. From this population I selected a pool of 10 participants whose children are currently of preschool and/or elementary school age, following the procedure outlined below. A target of 10 participants was determined to be a suitable number based on the specific time constraints of this thesis research. Interviews lasted between 45 minutes to an hour each, providing over 24,000 words worth of detailed information for transcription and analysis.

**Participant Selection.**
Facebook™ was utilized to communicate a request for volunteer participation in this study. The site was chosen for both its communication and cost effectiveness. A Facebook™ group page, *Environmental Education in Thunder Bay* (https://www.facebook.com/groups/225735517545261/?fref=ts), was constructed to provide information about this research to prospective participants. The Facebook™ group page included a brief study summary and request for volunteer participants, the content of which can be reviewed in Appendix A. In an effort to reach potential participants representative of the demographics mentioned above, I sent the Facebook™ group solicitation device through my own and two associates’ Facebook™ friends public profile pages. An invitation to join the Facebook™ group page was sent to my 383 Facebook™ friends, 651 Facebook™ friends of my partner, and additionally 746 Facebook™ friends of an associate. Although I was unable to be sure that the invitation was seen immediately by all invitees, notification of the invitation would be presented upon their next Facebook™ log-in. This method of dispersal held the potential to reach a large cross-section of the population under consideration immediately, and also for immediate exponential growth. The Facebook™ group was built with an open viewing option, enabling it to additionally be seen by the Facebook™ friends or page viewers of any of the initial 1,780 invitees. Prospective volunteers were invited to contact me via e-mail through the Facebook™ group page constructed for the study or by phone. In the event that not enough volunteers were found initially, the solicitation would have been broadened to include additional associates’ Facebook™ friends.

Within three days of posting the group page I received over 100 requests to join the group. From these Facebook™ group page joiners, 15 individuals, whom I know personally and
consider to be like-minded economically driven individuals, agreed to participate in this study: six through Facebook™ e-mail, and nine by phone. Of those who volunteered themselves as potential participants I selected five male and five female individuals. Selection of participants was based on their availability for scheduling of interviews, as well as fulfilling an accurate cross-sectional representation of Thunder Bay’s visible ethnic demographic. Participants included one First Nation individual, which is representative by population: eight per cent. Professions listed by the 10 participants were elementary school teacher, college professor, broadcast journalist, accountant, bank manager, air paramedic, pharmaceutical sales rep, police officer, entrepreneur, and professional forest-fire fighter. Participants ranged from 35 to 55 years of age. Participants each had between one and three children ranging between one and 10 years of age.

**Interview Questions**

During the research interviews, I asked a series of questions of parents of preschool and elementary-school-age children in an attempt to reveal participants’ perceptions, and current knowledge of, FS while simultaneously revealing presently held myths of nature (Dale, 2002; Gunderson & Holling, 2002). The interviews were comprised of open-ended lead questions and subsequent open-ended follow-up questions, when necessary. Occasionally, further explanation was required about the questions, or the conversation moved away from the scripted questions. I welcomed these detours insofar as they were relevant to the research and in each case returned to the next scripted question upon completion. Question development and selection involved trial
Interview Process

Prior to each interview I provided potential participants with a cover letter describing the nature of the interview and subsequent research process as it related to duration, topic of interest, consent, anonymity, participation withdrawal, and contact information for the Royal Roads University Research Ethics Board. This cover letter is displayed in Appendix C. Upon answering any resultant questions, and with participants’ agreement to proceed, a letter of consent was provided, signed, and stored. A sample copy of the letter of consent is displayed in Appendix D. Each participant was provided the option of choosing a pseudonym, which would be used to protect his or her identity throughout this research. Pseudonyms as chosen are noted on each participant’s letter of consent. One-on-one interviews were conducted in person, and located where convenient and comfortable for the volunteer participants (Creswell, 2007).

Scripted interview questions were developed and asked to initiate potentially revealing conversations around primary topics of interest. Subquestions were asked when necessary to continue probing within a primary topic of interest. Subquestions were occasionally not necessary, as a conversation may have already covered the related area of interest. The nature of these discussions was seldom completely linear as scripted; often a conversation sparked by one question was relevant to another.

Creswell (2007) suggests that it is important in ethnographic research for the researcher to be not only present and recording, but to also be observing the participant in order to
accurately reflect their point of view. Therefore, I maintained a research journal throughout the study, documenting any inaudible subtleties noticed, and considerations of interest as they occurred. Interviews were recorded in audio using an iPad™ with an external microphone placed on a table or the ground. I explained at the time of interview that the recordings would be transcribed verbatim via word processing software and exported to Dedoose™ Internet-based qualitative software for analysis. Participants were informed they would be offered an opportunity later to aid in research by verifying their answers were represented accurately in transcripts.

Data Analysis

Analysis of the qualitative data involved a process of discovery whereby transcriptions of interviews were prepared and organized for analysis and sharing with interviewees to check for accuracy. All interviewees ultimately declined the offer to review transcripts, often stating time constraints and a trust in my ability to transcribe their answers directly. The analysis process involved field note referencing and reflection; thematic coding through review and correlation of data in light of research questions, and intercoder agreement with my thesis supervisor; integration of interview and field note data; and numerous iterative drafts incorporating discussions with my thesis supervisor over a period of two years.

Preparing Data.

Upon completion of each recorded interview, field notes were summarized to aid in reliable reflection of relevant considerations that may have occurred during the interview. Interview data transcription into Microsoft Word 2007™ was attempted using Microsoft
Windows 7™ speech recognition program. I would listen to the recordings at a reduced speed while wearing a headset and speak simultaneously into a microphone for transcription. Using this speech recognition software proved unproductive, so I instead transcribed recorded interviews by hand. Each transcription was saved in a Microsoft Word 2007™ file under a pseudonym chosen by the participant. Hard copies of pseudonym to actual name pairings and signed letters of consent have been stored separately in a locked filing cabinet.

Microsoft Word 2007™ transcriptions were uploaded into Dedoose™, which enabled the association of layers of attributal data to original transcription data for analysis. Dedoose™ was used to help code and analyze themes and concepts relevant to participants’ perceptions, beliefs, values, and behaviours towards FS, as well as their use of revealing metaphors.

**Transcript Analysis.**

The process of qualitative data analysis involves “Noticing, Collecting, and Thinking about interesting things” (Seidel, 1998). I closely followed a process of qualitative analysis for ethnographic data where the patterns of values, behaviours, and beliefs of a culture-sharing group—in this case some parents of preschool and elementary-school-age children in Thunder Bay—are described and interpreted by the researcher as set out by Creswell (2007).

I initially attempted to gain a sense of the entire database as a whole by reading each transcript in Dedoose™ repeatedly before setting out to break the interviews down into parts (Creswell, 2007). Throughout this process I memoed my thoughts, describing the content in the Dedoose™ memo application. The thoughts and ideas recorded in my field notes aided in reminding me of other considerations relevant to the text. These reminders were also recorded as associated transcription attributes at relevant points using Dedoose™ memo.
Describing, Classifying, Interpreting, and Presenting the Data.

The next stage of analysis involved describing, classifying, and interpreting the content of transcriptions. I began the process by describing in detail my perspectives of each transcription while considering the relevant context and associated metadata. Several initial themes for classification of data were developed and fine-tuned as they become apparent through combing of the data. In order to accomplish this, data was first broken down into categories by way of tagging words, sentences, or entire passages with codes (Creswell, 2007). Initially I developed a short list of tentative *a priori* codes. These *a priori* codes were largely composed of information that I expected to find in the data given my research questions, literature review, informal discussions with friends, and pilot interviews held with family and friends. Pilot interviews as well as journaling of my own thoughts helped bracket potential personal biases. In order to minimize the amount of data manipulation involved, I began with a small number of initial broad codes (around five or six) with the expectation that this would expand to 30 or so narrower codes (Creswell, 2007). Additional codes were added as they emerged with the presence of surprising, unexpected, and conceptually interesting information in the transcribed interview data. These code words were developed and applied in an unambiguous, consistent, and thorough manner (Seidel, 1998). An example of this process was the early identification and coding of metaphors in general, followed by a further breakdown of the category into types of metaphor: exploitist, utilist, or integrist (Dale, 2002). The resultant codes were next classified into several general themes or subthemes describing how the data as a whole could be discussed.

Interpretation involves making sense of the data collected as a whole. I attempted to step back and gain a broader view of what was taking place for participants as a group, and the ways
in which they differed. I formed my interpretation through the use of a combination of my own bracketed hunches, insights, intuitions, and perspectives (Tufford & Newman, 2012). Dale (2002) says, “The researcher is an integral part of the context. Just as objects and subjects influence and interact with one another, so, too, does the environment influence and interact with all who observe and conduct research” (p. 18). In this meaning-making phase of data analysis I attempted to ensure that each participant’s meaning, as experienced, was reflected accurately in the final summary (Creswell, 2007). Participants were contacted before data analysis and requested to review transcripts of their interview to ensure their meaning had been reflected accurately (Creswell, 2007). Each participant politely declined the request to spend additional time on this research, perhaps due to the length of the initial interview process. Unfortunately, this meant I would not have participant verification of the validity of my interpretation of the interviews and would instead rely on field note referencing, reflection, and intercoder agreement with my thesis supervisor for data triangulation. In hindsight, the request for interviewee review of transcriptions and my subsequent interpretations could have been made and scheduled during the participant selection process, ensuring its achievement.

The analysis of data following the methodology outlined above was in fact an arduous task. At the midway point, I felt the methodology created distance between myself and the information that was available to be drawn out of the interviews. As I worked at isolating passages and sentences for tagging with representative codes, data often lost its context and meaning. I began to see the data as snapshots of information and lost sense of the contextual connectivity of the interview as a whole. Upon this revelation, and with my advisor’s advice, I returned to the interview data with new eyes. Through repeated readings of the entire data set I
began to reconsolidate the fragmentation that had occurred, thereby gaining confidence in my understanding of the interviews as a whole. The initial thorough breakdown of interviews highlighted the relevant passages that did exist, and through repeatedly revisiting the interviews in their entirety, passages regained contextual richness. While this was at the time worrisome, in hindsight it was an important part of creating a deeper qualitative understanding. Reoccurring themes throughout the data were coded and are discussed and exemplified in the findings section below.

**Delimitations and Limitations of Study**

**Delimitations.**

This study is an attempt to research knowledge and perceptions of FS, a form of EE, by participants in Thunder Bay, Ontario. A recognized delimitation is inherent in its restriction in scope to one specific city. This subset of the entire population of parents of preschool and elementary-school-age children in Ontario was chosen for its specific relevance to Thunder Bay and for ease of accessibility to respondents. I recognize that the resultant attributes and findings of this study may not be directly applicable to FS inquiry in other communities, but anticipate the research process may be. I also recognize any conclusions gained through this qualitative research are not representative of the general population, but do give insight into how some members of this particular demographic view FS, possibly identifying important questions for further study by other methods.

**Limitations.**
In ethnographic research a major limitation to the reliability of collected data lies in the realm of the respondents’ level of truthfulness and understanding of their own beliefs towards the questions posed (Creswell, 2007). In recognizing this limiting factor of ethnographic research, efforts were made to allow the respondents to help form questions asked through the use of open-ended lead questions, with the intent of ensuring questions were relevant to each respondent’s current reality (Golafshani, 2003). Golafshani (2003) recognizes this effort adheres with the notion of data triangulation.

Within the collection process triangulation was established through three methods of data collection: recorded interviews, my field-book notes, and subsequent interviewer summaries. In addition, when coding interview transcripts I established transcript intercoder agreement for validity of analysis with my thesis supervisor (Creswell, 2007).

This qualitative research includes acknowledgements of my position and viewpoint, thus enabling the reader to consider whether researcher bias may have influenced descriptions and/or interpretations in the analysis of interview data (Creswell & Clark, 2007).

Validity

An attempt to provide some measure of validation to the results of this study was made through the following efforts: audio records of each interview were kept for ease of referral; recordings were transcribed directly, including pauses for reflection and restating of answers; a research journal was kept to document any inaudible subtleties noticed, and considerations of interest as they occurred during interviews; a posttranscription analysis was offered to each
participant in an attempt to verify that their meanings had been interpreted and represented accurately.
Chapter 4. Findings

Introduction

Research findings are presented in six sections mirroring the major themes addressed through the interviews. Excerpts from the interviews are presented in this chapter to support the major themes: myths and worldviews; parental experiences in nature; awareness, preconceptions, and perceptions of forest school (FS) programs; perceived benefits, barriers, and ability to overcome barriers; readiness to participate in the FS concept; and concerns with current education options.

Myths and Worldviews

The first section looks into participants’ values and beliefs through the presence of cultural metaphors that reflect and influence how participants view and relate to nature (Ireland, 2007; B. Larson, 2011).

Metaphors supporting Dale’s (2002) utilist paradigm, or myth of nature, are illustrated in well over half of participants’ early experiences and are reflected as well in their current views of nature. When asked the interview question “What does nature, or the natural environment, mean to you?” seven of 10 participants demonstrated a common Cartesian split between themselves and nature suggesting they hold an anthropocentric worldview: a human-centred value system where humans are considered separate from and dominant over the natural environment. Half of all participants pointed or nodded to a window when answering this question, indicating that nature existed out there, separate from their personal environment. A representative excerpt
from Lynne: “Basically it means being outside, having a place to go hang out and exercise or whatever you need to do. Anything outside I would think.”

Mary’s answer implies nature to her is something that exists outside of her, aside from her utilization of it:

_I use nature’s bounty, and yes I use it recreationally. Just somewhere I can go walk and be in trees, not see any concrete. Parks are lovely but I like the real—where there’s no sign of human interference._

Despite a very tangible physical connection with the natural world, Trent too displays a conceptual separation between nature and human environments: “So, downtown Toronto is not a natural environment but there’s nature there.” Regardless of this viewpoint, Trent does display an understanding of the importance of connectivity to the natural world:

_I’m a hunter and fisherman and I eat wild animals and fish. I believe that the people that are against that have kind of lost contact with the way that we are. People that live in the cities are used to people doing the dirty jobs for them. They’re totally disconnected from reality. It’s a false sense of security that they have. If anything ever happened they would have to revert to the way it was and then they’re going to be lost. It’s the same as when you talk about somebody who’s a city person and they go to a small town: they’re lost for a while because they’ve lost their whole transit system, a store everywhere and they got to adapt._

From the larger context of the interview, Trent’s response illustrated his belief that some people who are opposed, and perhaps do not value his relationship with nature, are themselves being shortsighted and selective in terms of what it means to be connected with nature.
Rob describes his conceptual separation between nature and humans: “It means the outdoors. Environment—where we live and sustainability of the planet. That’s what it means to me.” Rob also states that he considers this viewpoint a luxury, and further explains why he believes it exists:

My relationship with nature is complicated. I do in one way have serious concerns for the future of the planet and our well-being; but at the same time in the age that we live in, which is an age of waste and thoughtlessness of future, I am myself being wasteful. I’m not considering the future of our planet. I consider that a luxury as I can see a day when people aren’t going to have the luxury of doing some of the things that we do, and of being as wasteful as we are with our resources. I have a paradigm conceptually, but between how I view nature and how I act in my day-to-day life there is a disconnect. I know what I should be doing but (pause). We hear about a worldwide freshwater shortage, yet we live on the edge of the biggest freshwater lake in the world, so I have a hard time buying into that one. I hear about shrinking forests, but we live in the forest here. A lot of these things are not real to our environment, but going to a big city like Los Angeles where there’s nothing but subdivisions for hundreds of miles and no resources, no trees—I can see how it would be an issue. However, we live in an area where we don’t feel the impact as much as others do.

Rob understands the necessity of a biocentric outlook for some, but does not count himself among them, as he does not believe he is immediately feeling the negative impacts of anthropocentric worldviews.
Metaphors supporting Dale’s integrist paradigm, or myth of nature, are displayed clearly amongst the other three participants. They suggest an ecocentric worldview: a nature-centred value system where humans are considered to be an interconnected element of nature. For some of these participants, an ecocentric worldview is not reflective of their early experiences. Their evolution of perspective is an example of how worldviews and environmental outlooks in particular may change with education and life experience.

I know Ophelia personally, so prior to meeting with her for this interview I was aware that she and her children choose to recreate frequently in natural settings. I’ve seen the connection she instills in her children with the natural world firsthand, as well as through Facebook™ images of her family at play outside. When I arrived for the interview, Ophelia came in from gardening in the backyard to greet me. Her boys remained playing in the yard for the duration of the interview. Through her interview, Ophelia spoke about how her worldview has evolved from an exploitist to utilist viewpoint; from a recreationalist and hunter earlier, to an integrist myth of nature at present. Ophelia was exposed to a utilist worldview as a youngster on bird hunting daytrips with her father:

> We had a camp on a mile-long spring-fed lake by Jellicoe, up by Hwy 11. And so I spent all of my time, morning until night, outside. My dad hunted the entire time I grew up, so we spent a lot of time “scouting” with him.

My notes aided me in recalling that Ophelia smiled lovingly, but with a tone of disapproval during the above remark. In the following excerpt she displays an understanding of interconnectivity and an acknowledgement of the bio-psycho-social benefits available through interacting with nature:
It means my happy place. In really simple terms it’s where I reconnect with myself. It’s where I clear my head. It’s where I make decisions. It’s where I make sense of stuff and it’s where I get in shape. I’m proud of that perspective. It makes me feel grounded and it makes me feel connected.

Gord currently holds a master’s degree in wildlife biology, and is employed as a college professor in natural resources education. Gord’s current viewpoint demonstrates a true understanding of connectivity: “Nature to me is the natural world including the natural laws. The laws of thermodynamics, gravity, conservation of energy and all those types of things. The natural environment would be a subset of that.” Gord, too, demonstrates an evolution of perspective. While his early interactions with nature were largely focused on nature’s bounty—“That was my interaction at an early age. Pretty much limited to that. Little bit of hunting, but not a lot. Primarily fishing with my mother.”—recent interactions and expressed interests suggest a marked change towards an altruistic outlook:

Then as I moved through university and postuniversity days I’ve become less of an angler and much more of a hiker. If I had to put myself in a group I would say hiking would have been a category I could place myself in … I went on this trip to South America where our primary goal, reason for going (myself and my two friends), was to hike different natural environments. Jungles, beaches, glaciers: every single type of natural environment we could find in South America. So that was the change, I’d say.

Participants’ myths of nature, like all of ours, are stories. Often they are stories that are inherited as children from an influential adult, or formed from formative experiences at an early
age. These stories then either persist as they are affirmed by further experience as we grow, or they evolve as our experience demonstrates their inadequacies.

**Parental Experiences in Nature**

The second section looks into participants’ interactions and connections with nature: how this may have changed over time, the role nature plays in their life today, as well as beliefs around the benefits it provides.

A common thread stitching together all participants was a perceived prevalence and importance of nature experience in their own childhoods. A typical life story among this group of respondents involved a natural attraction for interactions with nature as children. Participants’ childhood experiences often involved camping, spending time at a cottage with family, or seeking out natural places in urban environments on their own accord.

For some participants there was commonly a purpose to their early experiences with nature which involved recreating or harvesting nature’s bounty. Gord provides a comment representative of this:

*I was born and raised in Thunder Bay, and my memories of physical interactions in the natural environment would have included fishing every single weekend, that was available throughout the summer. A great deal of time was spent fishing, camping, fishing as a youngster, including winter camping.*

Other participants spent time in and enjoyed nature for nature’s sake during their childhood. This excerpt from Rob exemplifies the importance of early nature experience to participants:
Swimming in the lakes, fishing in the rivers, building forts in the bush, going on nature hikes. So a lot of my youth was spent in nature, interacting with nature. It’s where I grew up. When I think back to my childhood the most poignant memories of my childhood were spent at our summer cottage in nature growing up.

Most respondents were raised by parents who provided access to naturally enriched environments at a young age. Mary recollects her family cottage:

In childhood, my folks had a little camp here. I spent a big chunk of my childhood just running around in what you’d consider nature. No real facilities, no plumbing, no anything; probably half the time peeing in the lake. My connection with nature started young. You discover animals, trees, plants, water, and you realize that you are kind of a part of that. That natural environment to me is really important.

All participants described a reduced time spent in nature with adulthood and the addition of their own families. This is exemplified by Trent:

Just the restrictions that I have now with the kids keeping me busy, I don’t get out near as much…. I used to take an early layoff so I could go guiding. Once that started I was in the bush with nature every day until December 15th. It was great. So now, since Jasper came along it’s been very limited. I haven’t shot a deer or a moose in about five or six years now. Now, my nature experience consists of flying over it and looking at it burning. Oh yeah—there’s nature.

Many participants work hard to provide their children the same opportunities of time in nature as they themselves were provided by their parents, often citing busy lifestyles as the primary impediment. Only one participant, Lynne, suggests constraints other than time to be a
limiting factor to her child’s access to nature. Lynne discusses what she perceives to be new constraints, including potential harm from environmental changes such as solar radiation, as well as from social change such as potential danger from strangers:

Actually in the last couple of years I just started gardening. I try to get Georgia outside as much as I can, but we laugh because whereas we used to just walk outside, now it takes like 20 minutes to get them all loaded up with sunscreen and water and all that stuff. We used to just drink from hoses as we walked by people’s houses. (laughs) It’s changed a lot, but like I said, since I’ve had Georgia I’m definitely outside way more because I want her to be able to experience what I did and I just believe all kids should be outside as much as possible. With the constant sunscreen, the difference now is they can’t be outside alone anymore (pauses searching for words). Stranger danger! I don’t remember ever worrying about that, as long as we were home by when the streetlights were on. Now, if I’m too busy to go outside, Georgia can’t go outside. She doesn’t get to go outside because she is an only child!

Perceived benefits of nature.

When asked what nature or the natural environment means to them, subsequent dialogue revealed that all participants recognized some personal benefits derived from interacting with enriched natural areas for themselves and/or their children. Participants displayed evidence of understanding the benefits to themselves and their children that can be derived from experience in natural settings and, in some cases, of the connections that these individuals, anthropocentric worldview or not, have with nature. Many of the benefits described by participants are reminiscent of those found by researchers, including attention restoration; cognitive
development; emotional, spiritual, and physical well-being (Berman et al., 2008; Hartig et al., 2010; Kaplan, 1995). When asked about the perceived benefits of nature experience, participants answered from several perspectives. Some answered from the perspective of their own childhoods, some discussed the benefits to themselves as adults, while others considered the benefits to their own children.

Lynne recognizes physical benefits from her own childhood: “Definitely beneficial in activity, exercise, fresh air—just all-over.... I just think having an active childhood outside has kept me healthy and helped me to teach my child the same values.” Dawn too discusses her own childhood and the natural world’s effect on imagination: “We were always outside, playing in the trees, climbing trees, just having fun. Using our imaginations.” Rob describes how formative his early time spent in nature was: “All my time and the happiest memories of my childhood were spent interacting with nature in some way.”

Mary discusses her memories of benefits such as an enhanced focus and attention restoration derived both as a child and as an adult:

I always thought I was way more engaged sitting there in the woods on a hard bench for church than I ever was in a big fancy building.... nature brings me peace and time to chill out and relax.... It still plays a role in keeping me grounded and remembering what’s important. Getting rid of the distractions of technology, and all the things that are bombarding us all the time.... I mean it’s where we live, it’s what we do, it’s what we eat, and drink. We’re very lucky here to have the water we have and the food we have. Gord recognizes psychological health benefits as an adult as he describes a period of attention restoration:
I think it is still the place where I go to get grounded…. There’s a period of coming back where you don’t realize how desensitized, or whatever the word is, that we get to this (points to iPads on table)…. The health and psychological benefits are profound, and I don’t think they can be found any place else.

Trent describes the psychological well-being and spiritual benefits he derives from nature experience as an adult:

What’s beneficial? Just peace of mind. That’s where I’m happy— It’s just, peace. It’s my very happy place…. I’m a hunter and fisherman and I eat wild animals and fish. I’m a nature boy. I believe in nature—I’m not a believer in God or religion or anything, I just believe in nature.

Patrick holds strong beliefs in the various benefits to all of interacting with natural environments:

I think it’s beneficial to anyone. Are we talking about physically, mentally, spiritually?

Speaking physically, it fed me, it clothed me, and it gave me everything I have…. There’s no doubt in my mind that kids do a lot better learning outside…. In a small room your thinking becomes small. If you’re outside, your thinking becomes more wide open.

K-Baz recalls formative moments from her own life and in that of her children’s lives as well:

What I got was lasting memories as I’m sitting here telling you about them 30 years later and I remember them like they were yesterday…. They love being there and to be quite honest they thrive in that environment. It plays such a huge role in learning for them, and they can take those skills and bring them to wherever else they’re going to be.
Ophelia also describes using nature experience for attention restoration as well as the benefits to her children’s focus:

*It means my happy place. In really simple terms it’s where I reconnect with myself. It’s where I clear my head. It’s where I make decisions. It’s where I make sense of stuff, and it’s where I get in shape…. My boys are active. They need to be moving, and actually their behaviour is so much more manageable if they are climbing a hill or a mountain than it is when they’re stuck indoors.*

Mike mentions the benefits available to combating physical health issues, but that are not utilized enough today: “*The kids these days just aren’t exercising as much, because they are not outside. They’re not playing like they used to.*”

**Awareness, Preconceptions, and Perceptions of Forest School Programs**

This third section contains excerpts demonstrating participants’ level of awareness regarding FS programs. In instances where there is some awareness of FS, this section delves deeper to discern if there also exist preconceptions or perceptions.

**Awareness of forest school programs.**

When asked about their knowledge of FS programs the majority of participants answered they have none and therefore also held no preconceptions of FS programs. Three participants—Ophelia, Gord, and Patrick—stated they had heard of the existence of alternative education formats such as FS, although Ophelia and Patrick further acknowledged they did not possess a true understanding of such programs. Only two participants, Ophelia and Gord, were aware of a part-time private FS operating within the district school board in the neighbouring township of
South Gillies. I did not expect there to be much awareness of the FS concept amongst participants, as FSs are still quite uncommon in North America so it was not surprising most had little if any knowledge of them.

Ophelia is an educator by profession, suggesting hers to be an informed position on educational issues in the Lakehead District School Board. Ophelia had a general awareness of the FS concept:

_I don’t know a lot about it to be honest. I’ve heard whisperings. I’ve heard talks. I’ve read articles and I think it’s really very interesting. I love the concept of the outdoor classroom. I’ve taken students out to an outdoor education centre several times for a residential stay. Like for three days, and it’s magic._

With regards to the South Gillies FS program Ophelia replied: “_I’ve heard of it.... I don’t know anything about it. At all._”

Only one participant, Gord, was in fact knowledgeable about FS in general, and the FS operating within the district school board in the neighbouring township of South Gillies specifically. He and his wife had previously investigated nature-based alternatives to the local board of education option. On his awareness of the FS concept Gord stated, “_The centre where Kai goes, they have sort of an outdoor curriculum as part of their philosophy. I’m also familiar with forest school to a limited extent._” With regards to the South Gillies FS program specifically he was more informed than Ophelia but disclosed he had limited knowledge: “_I’m familiar in that I know that it’s there, and I’m somewhat familiar with its philosophies._”

**Preconceptions of forest school programs.**
Preconceptions of FS programs were limited as was the general knowledge of such programs amongst participants. Ophelia’s knowledge of the South Gillies FS was limited, as documented above, and she expressed little interest even though she is an educator and places high value on interacting with nature, loves the concept, and has been involved in a limited amount of outdoor education herself. Even with this background, given her limited knowledge and interest she indicated no preconceptions of the program.

Despite acknowledging no familiarity with, or knowledge about, FS programming, one participant, Patrick, displayed evidence of negative preconceptions:

*I’ve heard of them in different places, mostly not in Northwestern Ontario though. I think there’s one down outside of Toronto run privately. One of the people I went to university with went there. She was all agog about it. But she was a crazy leftist hippie who had really weird ideas about things though so I can’t really...*

Patrick didn’t finish his thought, but rather trailed off at this point. He left the impression that if FS was something that this “crazy leftist hippie” found acceptable, then it wouldn’t be of interest to him as an option.

**Perceptions of a nearby forest school program.**

Where there was awareness demonstrated, as was the case with Gord, I continued with further questions to determine his perceptions of the FS concept. Gord’s responses illustrate perceptions developed while investigating the South Gillies FS as an option for his children. Gord’s view of the South Gillies FS’s core construct illustrated issues he has with relating to the core curricula as well as a stereotypical characterization that doesn’t speak to his values:
I’m an analytical kind of guy and I still want the curriculum of any school to consider the fundamentals of mathematics and chemistry and these types of things. I think there’s a perception and I don’t know how well-founded it is … that some of the initiatives are a little too far, a little too hippie-ish to use the term…. That’s the fear, and I think that’s the perception out there. That some of these initiatives are a little too loose and open-ended in that regard, and that … some of the fundamentals of a traditional curriculum might not be achieved.

Gord’s negative perception of the South Gillies FS was further entrenched after looking into an open house at the school:

There was, sort of the forest fairy kind of weekend that happened. For me it’s just too far out there…. I understand where they are going with that and the rationale behind it. For me, I don’t need that to create a sense of awe and wonder about the natural environment. I am in awe and wonder about the natural environment as somebody who scientifically has an understanding of the natural world. I’m still in awe. So, I don’t need fairies. I don’t need it to be created for me. It’s there.

Gord felt that the South Gillies FS core construct and messaging did not reflect his and his wife’s concerns for the three Rs, views of nature, or what a nature-based education should be. His concern about its emphasis on fairies and creating a sense of awe and wonder as well as an apparent lack of emphasis on traditional core curricula is supported by the school website. This school has on its website homepage a banner image of a mystical nature scene. The image is of many small children, depicted as fairies, arising for the day from the roots of a grand tree and running through the forest. The website further describes a typical day at the part-time FS:
After our morning sun salutations we spend time in our individual sit spots (special places in the forest), where we spend time connecting with the earth and ourselves. We then head inside for a communal snack, followed by our circle time, which involves activities and learning centered on the day’s theme as well as time for a story. Creative play follows, where the children transform the space and themselves into everything imaginable. There are organized art activities and ongoing art projects that the children may choose to work on. After our communal lunch, folks head off for their quiet time. Some may work on journals, others may read or make puzzles. As this winds down (and the kids wind up), we again head outside for our day’s adventure. We spend time learning about the rhythms and life found in the natural world. We explore, discover, and definitely get dirty. The last part of the day is spent inside following up with the day’s theme (either doing art, movement, completing projects etc.) or engaging in specific sessional classes. E.g. games from around the world, gardening, moon journals etc.

After our closing circle, kids gear up and head outside to meet their parents (http://www.theforestschool.ca/about-us.html).

This is a program whose message is presumably targeting a subset of parents that may identify with a biocentric, communal, creative worldview, potentially characterized, as Gord did, with a hippie or granola stereotype label. Based on this website Gord was initially sceptical of the program, but still looked into an open house, only to find that his earlier mentioned preconceptions “a little too hippie-ish” were to be confirmed. Gord’s closing comment in his excerpt above is an important reminder of the fascination held by some, who could be described as pragmatic, towards the natural world:
For me, I don’t need that to create a sense of awe and wonder about the natural environment. I am in awe and wonder about the natural environment as somebody who scientifically has an understanding of the natural world. I’m still in awe. So, I don’t need fairies. I don’t need it to be created for me. It’s there.

This comment in particular highlights the importance of framing FS communications in order to appeal to potential participants’ values. To Gord, it was unnecessary to inject mythical beings into the natural world to spur interest when he sees there is already magic enough in photosynthesis and other natural processes to capture the imagination.

**Perceived Benefits, Barriers, and Ability to Overcome Barriers**

This fourth section contains excerpts demonstrating participants’ general considerations around FS, perceived benefits, barriers to enrolment, and thoughts on overcoming those barriers.

In each situation where the respondent was not knowledgeable of FS, I took the opportunity to explain in very basic terms the concept of FS: “What I am referring to here are nature-based environmental education programs such as forest school, a form of education in which learning takes place primarily in the outdoors.” This explanation then enabled each participant, knowledgeable or not, to participate in further discussion regarding their thoughts on the merits, barriers, and feasibility of participation in FS programming for their own children. The representative excerpts below illustrate that this group of participants, without much previous knowledge, was able to identify many of the benefits of the concept of FS that are acknowledged in the literature. Benefits identified by participants include psychomotor
development, attention restoration, an understanding of interdependence and connectivity with nature, as well as an enhanced level of focus and engagement during activities.

**Perceived benefits of forest school.**

While interviewing this group it became clear that regardless of their familiarity with the concept of FS previous to the interview, each participant could see the benefits to an education in an outdoor setting. This is not to say that participants viewed the very act of being immersed in nature as a form of education in and of itself, but rather that they could see the benefits to learning from removing walls. Gord supported this in stating, “I see incredible benefits to being out in the environment and fostering adaptability and creativity and an awareness that comes from the immersion in being in the natural environment.” Mary believes that the FS concept might be an appropriate fit for her son:

*He loves being out in the garden finding worms and finding bugs and is very curious about their differences and what they do. How they eat, what their role is in the garden and in the world. That makes him do a lot of thinking… He wants to learn about nature. Based on that I would think that having a school that revolved around that would really engage him. Math, you can teach with anything; count the branches if they’re little. Centipedes. There’s so much numbers in nature, right? You look at the physics of various animals and know things grow and how they relate to one another. It’s engineering at its best when you look at how trees develop and grow based on their surroundings. You can use that as your basis and still teach what needs to be taught.*

Rob instinctively intuits that there is something different going on for people in natural environments: “I think you could engage children better in a natural environment because
there’s a lot more stimulation going on than in four yellow walls and a grey floor.” Mike describes a common belief in the benefits of hands-on experience in education:

In experiencing stuff, you learn a lot better, so if there’s a science or a botany course that they’re picking up, going out in the woods and looking at it is a lot different than searching for it through a textbook.

As a professional educator Ophelia has seen firsthand the benefits of education in an outdoor setting:

What I love about those programs the most is that the kids that are super tough to manage in the classroom, and you are sort of at your wits’ end because you don’t have the tools at your fingertips to deal with these kids properly. Nine times out of ten, maybe even more, you get those kids outside and you don’t even recognize them as people. They turn into something that you haven’t seen before.

Participants seemed to relate easily to the FS concept and demonstrated overall support for it insofar as it was used to enhance current curriculum, teaching, and learning.

**Perceived barriers to enrolment.**

Early on in my consideration of this topic, and upon finding out there was a void in the research regarding parents’ barriers to participation in FS programs, I surmised a very different response to the question of barriers to enrolment. While I imagined accurately that there would be very little knowledge of such programs, I believed this lack of knowledge would translate into an initial lack of acceptance of the concept on philosophical grounds. While I cannot rule this out as a barrier to enrolment, it definitely did not come to light in this research. Among this group of participants, stated barriers to enrolment were of a much more tangible nature and
reliably consistent. They can be encapsulated under four categories: curriculum, financial, location and access, and safety.

Curriculum was the most prevalent concern and potential barrier mentioned by seven of the 10 participants. Participants seemed to use several terms—core fundamentals, fundamentals, and the three Rs—interchangeably to describe an undefined base curricular content. I do not know the details of each participant’s view of the core fundamentals, as this was outside the scope of this study. However, it was clear to me that when participants spoke of core fundamentals they felt no further explanation was necessary. I understood this to mean the core subjects of reading/writing, math, science, and social studies. The following representative excerpts summarize the spirit of participants’ comments overall. First, Gord discusses a shared concern about the core fundamentals:

*I see incredible benefits to being out in the environment and fostering adaptability and creativity and an awareness that comes from the immersion in being in the natural environment, but that can’t be at the cost of some of the core fundamentals of education, in my perspective.*

Another major curriculum concern was the ability to incorporate technology into the curriculum in an outdoor environment. Rob discusses the availability of technology in an outdoor environment:

*The three Rs can be taught anywhere, but technology requires computers.... That would be my only trepidation; somebody would have to be able to convince me you could learn as much about technology in an outdoor environment as you could in an indoor*
environment…. If that were somehow compromised for the sake of being in nature I would have concerns with that.

Trent also discusses the technological content available in an FS: “I would be fearful that it wouldn’t include enough of the technological new age stuff…. I don’t want my kid going to a school that just focuses totally on technology and ignores nature. Unfortunately too many do already.”

It would seem there is rejection to taking their children into an outdoor environment to enhance and broaden the scope of their learning, unless they bring what they are already learning with them as well. There is a resounding message that could be summarized as nature yes, but not at the expense of the core fundamentals. These participants expect there to be clear linkages between experiences in nature and the core curriculum. Presumably teaching about nature, in nature, through nature would satisfy their expressed expectations.

Several participants commented on the private financial burden that would accompany an FS program not currently funded by local district school boards. Gord spoke about financial barriers:

*It would be incorrect to say that there’s not a financial barrier in some ways to these institutions as well…. looking at some of the other options out there that have been proposed, you’re looking upwards of $500.00 a month.*

K-Baz commented further on financial considerations:

*Cost! If it wasn’t part of a public system available to all kids you’re not going to get all kids in it…. we have two incomes, we also have two car payments, two mortgages, so cost is a huge consideration.*
Other participants highlighted that a lack of school board funding may represent significant challenges with respect to transportation and educational assistance in instances of special needs. Ophelia too discusses funding:

Funding. Where would the funding come from for things like transportation and that kind of thing? I mean, that would be a huge barrier to knock down.... My immediate and instinctive response is ‘get me to the front of the line’. And my second response is ‘what happens if my kid runs into difficulty?’ What kinds of things would be in place to help with any sort of learning issues? I mean, I have a kid with some major attention issues. Nothing that’s been identified or anything like that; but I worry about, if we ran into problems what structures are in place to fix them? Is there assistance? Is there one-on-one help available?

Funding concerns were expected and are of course legitimate. At this point in time, the nature kindergarten in Sooke, BC, is the only board-funded full-time FS program in Canada.

With almost half of respondents mentioning distance as a barrier it too is worthy of attention. With no particular FS program in mind, this barrier is based purely on respondents’ presumptions that such a program would not be located within city limits. K-Baz discusses physical proximity of an FS as a potential barrier: “Geography, where it would be and how accessible it would be to us for our kids to go and get there every day would be important too.”

The following quotes represent a list of safety considerations that should be contemplated at the time of program development for any FS initiative. Lynne’s primary stated concern regarding enrolment of her daughter is of an adequate learner-to-educator ratio to ensure child safety:
As long as I knew there were safeties in place—not being alone with animals and no sunscreen.... Supervision is the main one. If she was basically safe in someone else’s care outdoors just because obviously there’s more dangers out there than in the contained building.

Trent, an avid outdoors enthusiast, brings up a very practical safety concern about access to appropriate shelter when needed in northern climes such as the one Thunder Bay is situated in:

“Here? Yeah, I’d say the weather in the wintertime. How would that work? I don’t know.”

None of the barriers identified by participants included a rejection of the concept in principle. Most concerns are instead focused around the details and logistics of implementation.

Overcoming Perceived Barriers.

The barriers identified by participants are revealing and helpful when considering program development and enrolment. It is useful to know if identified barriers are seen as impediments or roadblocks. Do respondents feel they have the ability to overcome these barriers? If so, it may be surmised that the barrier in question can be addressed. If not, it may be surmised that the barrier identified is seen as a roadblock, possibly reflecting participants’ doubt about program feasibility.

One participant, Lynne, stated that her barrier to enrolment would not be the concept, but rather specific knowledge of the daily management and safety of an FS program. Details such as supervision model, sunscreen availability, safety from wildlife were of primary importance to her. So while she is not expressing a disagreement in principle to FS programs as a viable option, details of the day-to-day operation would constitute deciding factors for Lynne.
Gord, K-Baz and Ophelia each mentioned distance and associated costs of transportation, as well as the financial requirements of such a program as barriers to enrolment, suggesting location and access are a barrier to enrolment. These individuals all suggested that board funding could overcome this barrier. A representative statement from Gord: “…[FS] should be physically embedded and supported in society and that would speak to it all. The problem would be totally solved right there (laughs).” My field notes support my memory that Gord’s statement was sarcastic in tone, indicating that he saw this as a major roadblock.

As identified earlier, a number of participants mentioned that the physical distance to a site might be a barrier in itself, illustrating that participants were not comfortable with the notion of their children having to travel very far from home for any type of school. Yet others recognized this did not need to be a barrier. Dawn addressed this issue of access: “Yeah, I just meant extreme distance, you know? If it was in the city boundaries it would be no problem.” Patrick supported this with a complementary statement:

*If it was inside the city that would be great. When it comes down to it, if the Catholic school wasn’t right beside where Jen works and we had to drive all the way across the city for it I may not have thought of taking the kids to that school.*

In this case, a physical embeddedness within the community, as suggested by Gord earlier, might help overcome this barrier.

The barrier representing the greatest consensus among these participants was curriculum, concerning both traditional core fundamentals and access to technology. While all participants recognized there would be benefits to holding class in the outdoors, they each had concerns
about what the curriculum would look like. As mentioned earlier this could be summarized as

*nature yes, but not at the expense of the core fundamentals.*

Many of the statements heard here regarding participants’ thoughts on their ability to
overcome this barrier are simply the barrier reinstated in a slightly different manner, suggesting
that they are solvable. Regarding the fundamentals, there was an expressed agreement that it
would make sense to continue with much of the current curriculum in an outdoor setting at FS.
A representative statement from Mary supports this finding: “*I think we all know that you can
teach the fundamentals through nature.*”

When considering the ability to incorporate technology into the curriculum in an outdoor
environment, Rob recognized this was not necessarily a barrier:

*I wouldn’t want to have my child left behind, as far as technology’s concerned, because
of participation in an outdoor classroom. If they could stay in lock-step with the kids in
an indoor classroom, then I guess I would have no real concern…. You’re right, with
wireless nowadays, Wi-Fi, iPads, I guess there’s no reason why you couldn’t have
wireless portals to an outdoor classroom.*

The final sentence in Rob’s statement came as a result of my physically pointing out that while
we were meeting in an outdoor setting, I was in fact using an iPad connected to an adjacent Wi-
Fi network to record the session.

**Readiness to Participate in the Forest School Concept**

This fifth section further explores participants’ considerations around acceptance of and
enrolment in such programs within their wider social communities.
Participant readiness.

The group as a whole expressed an interest in the FS concept and was open to considering it as an option. When asked specifically if they saw this as a good fit for their own children, one answered positively in principle with the caveat of requiring specific information about security and student-to-teacher ratios. The rest answered positively with caveats regarding the deliverables of this type of education if it incorporated the core fundamentals. This representative excerpt from Ophelia demonstrates her personal belief in the educational and social benefits available and an excitement at the prospect of participation in FS for her own children:

…I have always said my son would learn math way better if you could put him on a treadmill in the classroom while he was learning it. I think they learn way better moving. And so, I think both my kids would do amazing in an environment like that. I think it’s a great idea, but I would need to learn way more about it.

It cannot be stated that any interest demonstrated by participants in FS is based on a clear understanding of the FS concept. For many participants this interview process was their introduction to FS. From the interviews it was apparent that the expressed interest is based on participants’ understanding of the potential benefits, feelings that something is missing from current education systems, and inabilities to provide the same access to nature they themselves were provided as children. This is reflected in Lynne’s comment, which is also reminiscent of the core principle in Richard Louv’s book, Last Child in the Woods (2005):

We’ve created this situation with these kids where they don’t even want to step outside because there’s no computer. With parents getting busier they’re letting the TVs and
computers babysit their kids. I understand that, but you both need to get out. The pendulum has swung too far to indoor kids.

Participants all expressed a readiness to participate, and a keen interest in potentially being involved in a local FS program if offered.

Community readiness.

I was originally concerned that some participants might feel uncomfortable responding negatively to questions in a face-to-face interview, and may unintentionally misrepresent their true feelings around FS in exchange for a positive interview experience. I wanted to provide an opportunity for participants to comfortably express negative feelings. Therefore, near the end of each interview I asked participants how they thought their neighbours would view FS. Ideally this would allow participants to project their own negative responses, if any, onto unnamed others. I initially surmised this would result in numerous predictions of rejection by their community at large. I was, however, surprised at the results. A majority of participants thought that other members of their community would also be accepting of the concept of FS. Below are several representative responses, starting with Gord:

I think generally in my community and in my peers that there is an appetite for it…. I think there’s an appetite for this broader movement, and I think the barriers that I’ve identified and mentioned are probably the barriers that keep a lot of people from pursuing this further. So some of the initiatives that have been tried and have failed, failed for the financial reasons and the access reasons and probably in part for the curriculum differences too. But I think the general idea, and the general principles and the benefits that would come from it that I mentioned and think about are probably
shared by a very large audience…. I think there’s a broad base of support for it and desire to see it happen.

Gord is a member of several local environmental organizations. He believes this component of his community’s perceptions about FS are in line with his. His statement reiterates concerns with curriculum and he suggests his wider community would share this concern. K-Baz, a pharmaceutical sales-rep and busy parent with three young boys, had this to say about her neighbourhood:

*It’s funny, Todd, because where we grew up in our really urban setting in downtown Thunder Bay all of our neighbours were so involved with the outdoors and it was a major part of how they raised their children. Even though we lived 20 feet away from them in the next house, row housing, row by row; it was a big part of what they believed in…. I truly think that if these questions got proposed to a larger group you would start to see that there is a major interest and a trend. People are doing these types of things but it’s not being offered in the school system. They have to find ways to still do it for their kids.*

K-Baz believes there is a void of FS programming in the local school board. She feels FS would be widely accepted by members of her community, who are personally attempting to do what they can for their children, regarding EE, on their own with limited time.

Several participants’ responses did reflect some skepticism. Rob displayed minor skepticism in his view of his community’s immediate readiness to accept FS programs, but also indicated he thinks it would be a success with time. From Rob:

*There are a certain number of progressive people that would seek it out, and people would follow that. I think over time it could become very successful. In the beginning*
it’s going to be tough, because it’s so outside of the box. It will be fraught with challenges in simply educating people as to the benefits. I believe there’s an old Herman Sheer comment that there is a word for it in Germany where something radically different, you find a lot of resistance to it initially, but over time it becomes the smarter way of doing things. Then looking back everybody claims they were for it right from the beginning.

Of all respondents, the most sceptical of answers came from Trent, a professional forest fire fighter and avid outdoorsman who fishes and hunts for sustenance. Trent believes that he is more in touch with nature than many people he knows, and in his mind they may not be as accepting of the concept as him:

I think most would probably be sceptical, maybe for the same reasons that I’m a little on the fence. I’m much more involved with nature in my mind than a lot of people I know. I can’t imagine those people all of a sudden saying ‘oh well.’ To me, they’re going to think it’s a step backwards.

Trent also stated earlier on that he didn’t believe a school based in the outdoors would necessarily be well-suited for everyone. This response, sceptical as it is, indicating that FS might be a tough sell in Thunder Bay, seems congruent with his earlier comments about the concept’s viability.

Regarding acceptance of the FS concept, most participants felt that within their wider communities there existed an appetite for it, it would be widely accepted, and that some parents are already attempting to fill the existing void through family activities. These comments relating to community readiness were all consistent with respondents’ expressed personal
considerations and concerns. This provides some confidence that respondents were comfortable enough with the interview process initially to provide their true feelings about the topics under consideration.

**Concerns With Current Education Options**

This final section investigates the gaps that come to mind for participants when asked to consider the education system they are currently involved in, or are currently considering for their children when they will be of school age. Two participants had no concerns with their children’s current school system. The remaining eight participants’ concerns are outlined below, many of whom point to the availability of time spent on environmental education (EE) as a concern.

Trent referred to a lack of extracurricular nature experience for credit:

*My sister works at a high school in Guelph, and she runs an outdoor education program there. They actually get credits for going on a canoe trip for a week or two and all that jazz. That type of program’s great, but I know every school doesn’t offer that. My biggest fear is that stuff like that is not available.*

Mary feels that there is a lack of consistent EE within the current curriculum framework:

*Some of the teachers have all kinds of things that they bring in. Little animals and insects and stuff get shared around, but it sounds like there is a real difference class to class to class. It depends on the teacher you get…. Because it’s mandated they probably are doing some, but how much are they really doing?*
Gord, who is familiar with the concept of FS and has been looking into options for his children, states his belief that the current education system is eroding creativity and not properly instilling an appreciation for the environment:

*My experience as a post-secondary educator is that the current system is broken. I see the product of the current system; it’s not a good product. I wouldn’t buy it. I wouldn’t sell it. I wouldn’t suggest it to anybody…. I see that with the students that come into my classroom graduating out of high school … the skill base that they have is not adequate to meet the challenges of our current society and it will not be adequate to meet the challenges of our societies 20, 30 or 40 years from now…. The challenges we’ve seen dwarf in light of the challenges that these future generations face…. That is gonna require an enormous amount of creativity and an appreciation for the environment that sustains us. Both of those things are being eroded by the current education system.*

K-Baz more generally believes there is a need to reexamine the existing system and restructure it to incorporate what is necessary for this generation of youth to be successful in the future:

*I believe there certainly is major room for improvement when it comes to kids and being exposed to the environment and learning more about nature. I truly think it comes down to restructuring the school system: how they’re learning throughout the day, the core principles, what’s important, getting rid of EQAO testing or whatever that is. Getting back to what’s really important for these kids to succeed in life.*

Several participants mentioned concerns outside of the realm of EE and instead focused on core curriculum, teacher–student ratio, and life skills such as finance and parenting. Lynne is
primarily concerned with opportunities for physical activity during the day: “I don’t worry about the education per se, like the knowledge part; I’m more worried about them phasing out gym classes, outdoor time.” Rob was more concerned with the core curriculum: “My concern right now is our core curriculum in Ontario is far behind some of the more progressive states in the US.” Dawn spoke of class sizes: “My concern would be the lack of one-on-one attention because the class sizes are so huge. They’re not really getting what they need 100% out of their teacher.” Finally, Mike was more concerned with life skills:

_Mine would be lots of life skills. Financial management. Working in a bank I see it all the time. You’re never really taught that at any point in your life. Some sort of social skills class too, or parenting. Understanding what it takes to be a parent…. It’s something that’s meant to be taught at home I guess, but sometimes the parents aren’t the right ones to be delivering that message._

Participants exhibited a diversity of concerns, exemplifying potential considerations that could also apply to any educational setting. However, it is reasonable to assume that the EE content concerns described above may be more readily remediated through participation in an FS-type program.
Chapter 5. Discussion

In this study I sought to understand several things about some parents of preschool and elementary-school-age children in my community: What is their knowledge of, and perceptions of forest school (FS)? Are they accepting of FS as a legitimate form of education? Would they enroll their children in FS if available to them? And most importantly, regardless of their acceptance of the concept, what do they see as the potential barriers that might impede the success of an FS program within their community?

While this study may not provide reliable evidence that a full-time FS program in Thunder Bay would be supported, it does suggest that these parents value environmental education (EE) in their children’s curriculum as well as their children’s access to nature. The above findings highlight commonalities amongst participants and inform us of opportunities that may be leveraged to connect some economically driven parents of preschool-age and elementary-age children in Thunder Bay, Ontario, with EE in general.

Various stereotypes contrasting environmentally focused and economically driven individuals have been counterproductive and perhaps have exacerbated a socioecological divide. Speaking from my own personal experiences, economically driven individuals have often felt outside what they have perceived to be a stereotypical environmental community, and it may have been assumed by environmentally driven individuals that they are. Yet, my research is showing that some of these people in fact have a strong connection with nature. Regardless of the type of connection to nature that participants hold, in this case a largely utilist myth of nature, the fundamental connection to nature is valued by these participants. So too is these parents’
desire to pass this connection on to their children. This suggests that despite stereotypes, there is common ground on which to build towards inclusive EE initiatives: real connections with nature.

A significant common thread amongst all participants was an understanding of the importance of nature experience in their childhood, as well as to their children’s development. Despite a largely anthropocentric worldview, these parents intuitively understand the benefits of the FS concept. Most participants initially held little to no awareness of the FS concept, or of the literature relating potential benefits these types of programs might offer their children. However, once forest schooling was briefly explained, and upon consideration of the general concept, participants identified cognitive, emotional, and spiritual well-being benefits that may be realized based on their own experiences.

Regardless of the lack of initial awareness, participants are interested in this educational opportunity. This reflects their shared belief in the importance of being connected with the natural world. Almost all participants showed an interest in the FS concept and were open to considering it as an option for their own children. Most participants believe there is something lacking under their children’s current education system, and many struggle against time constraints to provide nature experience opportunities for their children, which FSs could conceivably address. As a result, these participants may be accepting of initiatives designed to help them to do so, and may support formal or nonformal educational initiatives that immerse children in nature experiences.

Participants were very clear that while they were accepting of FS conceptually, in order for it to be acceptable in practice, the curriculum must include the three Rs. This sentiment represented the single largest potential barrier to participation, and mirrors those of parents in
nationwide polls considering alterations to their children’s current education. It also demonstrates parents’ support for social, environmental and economic imperatives of sustainability in public schools (Dale, 2002). Parents expressed support for the inclusion of soft skills such as nature immersion, critical thinking and communications, which are important for developing socially and ecologically literate individuals, but not at the expense of the traditional fundamentals—skills commonly associated by the economically driven with success.

This research shows that participants are accepting of FS, and we do need to ensure it is inclusive of the three Rs, and market it as such, to entice widespread enrolment. This acceptance suggests there is reason to broaden the scope of FS concept communications to incorporate the expressed values of these participants. This type of framing may be of significant benefit as it leverages what appears, from the literature on parental expectation for education, to be a very common sentiment. Attending to these concerns would potentially broaden the appeal of FS-type programs to the general public. An FS program marketed with this in mind moves one step closer to mending the perceived stereotypical divide between environmentally focused and economically driven individuals.

In both Ophelia and Gord’s cases, there is evidence the current message being received by them regarding the South Gillies FS program is being disregarded. In Gord’s case, the program’s emphasis on fairies and more spiritual considerations was enough to convince an educated and otherwise primed participant to turn away from this FS program option. Despite his beliefs that the FS concept would greatly benefit his children, Gord has decided he would rather not participate if it means disregarding his core values and his belief that EE need not exclude traditional subject matter. Ophelia, who despite her interest in the concept of the
outdoor classroom and a strong belief that her own children would benefit, showed that she had heard of the South Gillies FS but wasn’t interested enough, presented as it is, to investigate further.

The above findings have me optimistic about the acceptance of FS programs in Thunder Bay, Ontario. Thankfully, it would appear that my early assumption that some of these individuals might view FS programs as more appropriate for the children of others was incorrect. While many participants do hold an anthropocentric worldview, their connection to nature is very important to them and influential in how they wish to see their children raised. As such, the myths of nature held by these individuals do not represent a barrier to participation. It would appear the FS concept speaks equally to values long held by all individuals, possibly stemming from early formative childhood experiences. Barriers to participation identified in this study are manageable and may be accommodated for at the outset of FS program development through marketing to the values of a broad-base audience inclusive of these economically driven, white-collar parents.
Chapter 6. Conclusion and Further Research Implications

In the 2012–2013 fiscal year, the Ontario Ministry of Education made available $20,000,000.00 in funding to support outdoor education programs provided by third-party organizations or by school boards themselves (http://www.edu.gov.on.ca/eng/funding/1213/Technical12_13.pdf). In a presentation at the Council of Outdoor Educators of Ontario Annual Conference held in July of 2013, Annelies Groen, the Toronto District School Board’s Instructional Leader in Science and Technology, stated while there is funding now available for the creation of outdoor classrooms, underutilization of the benefit exists due to a lack of educator experience in environmental education (EE) (A. Groen, personal communication, September 28, 2013).

At a time when public school boards in Ontario have begun utilizing newly available funds, it may be of benefit to consider this study’s findings in the development and delivery of internal EE programs. Programs designed with built-in assessments and reportables may help ease the transition for current educators as they learn to satisfy board curriculum requirements in an outdoor classroom environment. Programs designed with parents’ desires and concerns taken into consideration can help foster community acceptance at a local level. Third-party EE providers also may benefit from detailed information, similar to that collected within this study, as well as a supplementary broad quantitative study discerning local parents’ considerations of EE programs.

The findings of this study represent the views of a few middle-class parents of school-aged children in Thunder Bay. Whereas this study has provided a glimpse at the considerations of a few parents with respect to one form of EE, it could provide the basis for an expanded
quantitative survey of the same topic. Such a targeted survey might provide the type of information necessary to build locally relevant EE programming from an informed stance.

Dale’s (2002) paradigms and other models of worldviews are, in effect, coarse filters through which a populace is divided into distinct categories. While the associated myths do accurately describe an aspect or layer of participants’ outlooks, they do not account for, nor were they intended to account for, the complexities of which these participants are comprised (Chang, Hammitt, Chen, Machnik, & Su, 2008; Hartig et al., 2010; Proctor & Larson, 2005). I believe trouble may arise if environmental educators, communicators, or program directors were to use models such as Dale’s paradigms to focus in on target audiences that appear to have a supportive myth of nature. Such stereotyping could result in a forest school (FS) program being marketed to a narrow audience who may be like-minded and receptive, but miss the greater population who may presently be unaware of such initiatives, but potentially supportive based on their experiences of nature. Alternatively, benefit can be found from using myths of nature to identify groups or individuals that lie outside a committed environmental perspective, and to broaden communications efforts to be inclusive of their values as well. The thread that can tie seemingly disparate groups together is a common heritage and appreciation of nature experiences.

I believe FS offers our children and our society many benefits. It helps to instill and nurture in our youth a sense of connectivity with the natural world that matures with them as they develop into future stewards of our environment. The literature is clear that it fosters imagination, creativity, physiological, and bio-psycho-social wellness among children, as well as improved educational performance—all benefits which will eventually contribute to a more sustainable world. FS programs also hold the potential for bringing together parents from
diverse social sectors to discuss shared values such as clean air, clean water, food security issues, and healthy living. With this concept of the expanded role, or *opportunity afforded* by FS, it is important to welcome all social sectors through inclusive programming and communication efforts.

Yes, we need to learn to reconnect with nature in general, and the best place to start is at the beginning, in nature kindergartens. But we must remember it is parents who will make decisions about the type of education their children will receive. In order for that decision to be an EE program, such as FS, those parents need to feel the educational experience will help prepare their children to be happy, healthy, and successful, and they need to feel welcome. They need to feel it speaks to their values. Ultimately, it is important that we attempt to bridge perceived socioecological divides by providing EE that is inclusive and open to diverse ways of valuing the environment. In doing so we strengthen our ties, and our recognition that we are all part of nature.
References


INVESTIGATING PARENTS’ KNOWLEDGE OF FOREST SCHOOL


J. Schipperijn (Eds.), *Forests, Trees and Human Health* (pp. 127–168). Dordrecht, Netherlands: Springer.


Appendix A: Study Facebook™ Group Page

Greetings,

My name is Todd Moore. I am a graduate student at the Royal Roads University School of Environment and Sustainability, and the primary researcher of a qualitative study investigating parents’ perceptions and awareness of a particular form of environmental education. I am looking for 10 volunteer respondents who are willing to participate in a 30- to 45-minute interview in which they will be asked a series of open-ended questions relating to their personal experiences with nature. Participants must have children of a preschool or kindergarten age and reside in Thunder Bay, Ontario.

Let me say in advance that I appreciate your consideration of this solicitation thus far. As a father of three I have experienced and understand the dynamic demands that all new parents must face. Planning appointments is often tough, and added expectations are unwanted; in volunteering to be interviewed for this study, these realities would be fully respected.

If you are interested, available and would like to help develop this body of research please contact me through this Facebook group page; you can either join the group or message me. Alternatively, my contact info has been made available below. I will get in touch to provide you with details and arrange a time and place at your convenience. If you yourself are not interested, but think you know of somebody else that may be interested in participating, please feel free to forward this group and/or join for them to see.

Thanks again for your consideration.

Have a great day.

D. Todd Moore, Primary Researcher
Appendix B: Interview Questions

1. What does nature/the natural environment mean to you?
   
i. How would you describe the distinction, if any, between the two terms nature and natural environment?

   ii. An alien just dropped in from a neighbouring galaxy. It would like you to now describe humans’ relationship with nature/the natural environment. *(nature or natural environment was used throughout depending upon participant’s answer to question 1.i.)*

   iii. If you could talk to another fictional character, Mother Nature, what would you thank her for?

2. Could you briefly describe your memories of physical interactions with nature/the natural environment, as a youngster?
   
   iv. Over the course of your lifetime what has changed about the amount, or way, you physically interact with nature/the natural environment? If there has been a change.

   v. How would you describe the role nature/the natural environment plays in your life as an adult?

   vi. In what ways do you think your contact with nature/the natural environment then and now was and is beneficial to you?

3. What are your perceptions and knowledge of environmental education and programs that utilize nature as core curricula? Or your familiarity of such programs. What I
am referring to here are nature-based environmental programs such as Forest Preschools or forest schools that use the outdoors as the primary place for learning.

vii. What are your thoughts on enrolling your child in a program that uses the outdoors as the primary place for learning?

viii. What are your perceptions of forest schools or nature kindergartens?

(asked only if participant demonstrated some knowledge about the existence of such programs)

ix. How were these perceptions formed?

(asked only if participant demonstrated some knowledge about the existence of such programs)

x. Do you feel forest schools or nature kindergartens, as you know them, are a good fit for your family?

(asked only if participant demonstrated some knowledge about the existence of such programs)

4. What, if any, barriers can you think of that might stop you from enrolling your child in a school that uses the outdoors as the primary place for learning?

xi. Of these barriers to enrolment, what do you see is needed to overcome them?

5. How do you think your neighbours would view Environmental Education programs that utilize nature as core curricula? And why?

6. Do you feel there is anything in particular missing in the current education system offered to your children?
7. Do you have anything else you would like to add regarding the topics we have discussed within this interview?
Appendix C: Study Cover Letter

Potential Study Participant,

My name is Todd Moore. I am a graduate student at the Royal Roads University School of Environment and Sustainability. I am the primary researcher for this study which investigates the potential barriers to encouraging parents to enroll their children in nature as core curricula programs. Through this 30- to 60-minute interview you will be asked a series of open-ended questions relating to your personal experiences with nature and your knowledge and perceptions of programs involving nature as core curricula.

With your consent the interview will be recorded. The interview is anonymous and at no time will any specific personal information provided be disclosed. Publication of any portion of the interview will include the use of a false name to ensure anonymity. Your full name will not appear on any documentation. The results of this research will be published and displayed in the Royal Roads University library. All recordings, transcripts and personal information will be held in safe and secure storage by Todd Moore at his office for a period of 5 years. This data will only be accessible to Todd Moore. After 5 years all data will be appropriately and permanently disposed of.

Participation is voluntary. If at any time you feel uncomfortable and/or simply choose to withdraw from the study, you have the right to do so freely. In the event you choose to leave the study, all data collected from you will be disposed of immediately. If you have decided you do wish to participate in this study please read the attached consent form carefully and sign.

This research project has been approved by the Royal Roads University Research Ethics Board. If you have any concerns regarding this study please feel free to contact the Research Ethics Coordinator, Office of Research, at (250) 391-2600, extension 4206. If at any time you wish to contact me with questions about the study, or regarding your participation in the study before proceeding, please use the contact information provided on this sheet.

Thank you,
Appendix D: Study Letter of Consent

Project Title: Investigating Parents’ Knowledge and Perceptions of a Form of Environmental Education: Nature Experience as Core Curriculum.

By: David Todd Moore, MAEEC, Royal Roads University, 2012

For: Dr. Richard Kool, Environmental Education and Communication Program Head, School of Environment and Sustainability, Royal Roads University.

By signing this form, I am indicating that I understand:

1. I have thoroughly read and understand the cover letter of the study.
2. I agree freely to participate and as a volunteer I can choose not to answer any portion of the interview or withdraw entirely.
3. I agree that portions of my interview may be transcribed and displayed in the body of the research study write-up.
4. There is no obvious risk that has been associated with participation of this interview.
5. All information I provide will remain confidential and secure at the office of Todd Moore for a period of 5 years. The interview will not be identifiable personally in any way and will remain anonymous for the write-up of the study through the use of a fictional name.
6. The research summary will be made available to me by contacting the investigator at the address provided on the take home cover letter.

Further:
I give consent for the interview to be digitally audio recorded by initialing here: ___________.
I do not give consent for the interview to be digitally audio recorded by initialing here: ___________.

If consent has been given for interviews to be digitally audio recorded, do you also consent to said recordings being erased after a period of five years? Yes_____  No_____.
(please initial one).

Name (please print): ________________________________________________________

Signature: ________________________________________________________________

Date: ____________________________________________________________________