

TEACHING AND LEARNING FOR
SPIRITUAL RELATIONS WITH NATURE

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By

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ABSTRACT

Modern Western Culture (MWC) is based in a materialist and mechanistic ontology that has marginalized spiritual relationality with the natural world. Awe of the Earth once maintained respectful relations between humans and Nature, where shared community existence was a primary concern. Through the rise of the MWC, reverence for the spirit of the Earth has gradually been lost and has altered the way humans situate themselves in the world. Many claim that as the divide between humans and Nature grows, significant barriers to thoughtful and sustainable ways of living have emerged, and reconnecting, or healing this divide is essential in the movement toward environmental sustainability. To address this divide, this research uses the reflective and iterative processes of action research together with feminist post-structural analysis to *examine barriers* to human-Nature relations at a spiritual level. It *explores dominant discourses* that act on middle years students and determine what is possible for student-Nature relations in a public school setting. The dominant discourses are embedded in three main themes: role of the city, social acceptance, and technology. Discourses within each theme have been deconstructed, identifying how they are reproduced or disrupted, the implications of adopting the discourses, and how alternatives may be encouraged in school to support spiritual relations with Nature. This research takes a small step toward broadening the possibilities of how people relate with Nature by including spiritual relations with Nature, and begins to erode a clearly identified barrier to achieving sustainability.

Keywords: *spiritual, human-Nature relationships, environmental education, Nature connection, relationality.*

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CHAPTER 1: INTRODUCTION

Personal Location

I come to this research as an environmental educator with an avid love of the outdoors. Much of my value system comes from the influence of my parents. They instilled a sense of wonder and exploration of Nature¹ from a very early age, which continues to grow and shape my life. When faced with important decisions, it has often been my individual relationship with Nature that has acted as my guide. As an adult, I regularly take time to connect spiritually with Nature, and feel rejuvenated and healthy when I do so. My parents' influence on me professionally is also evident, as my dad was a superintendent for Parks Canada and my mum an elementary school teacher. I grew up in a loving and supportive upper middle class home in Ontario where camping and outdoor play were encouraged and part of regular life. I have two older brothers who have inspired, challenged and motivated me to always keep up.

I am 31, heterosexual, Caucasian, active, and spiritual², but not religious³. Deep down I believe that in order humanity to become environmentally sustainable, Modern Western Culture (MWC), defined by Beeman and Blenkinsop (2008) as Earth's dominant culture that, "presupposes the primacy and centrality of the individual human and situates humankind over and above all else" (p. 96),⁴ could benefit from shifting its way of being in the world to a non-hierarchical relational ontology where spiritual relations with Nature are supported by love and respect. Through my individual interactions with Nature I have learned to listen, trust, and

¹ Refer to terminology section on Nature for an explanation of the use of the term

² I refer to spirituality as the sense of connectedness of all things, where the concept of God/gods is open. For more on this, refer to the terminology section on Spirit and Love.

³ In the context of this study I am defining religion as an organized entity that follows a set of dogmatic principles about a higher order of God (Büssing, 2010). Spirituality is less confined by structure, but rather, "a deeply embedded notion of the connectedness of things, gods, people and land" (Meyer, 1998, p.22).

⁴ See Human-Nature divide section in Chapter Two for a detailed explanation of MWC

challenge myself. I have had experiences in Nature that have left me feeling calm, grounded, challenged, defeated, invigorated and loved. I came to this research with the goal to affect positive change in the field of Environmental Education (EE), and although I have been developing a connection with Nature for my whole life, it is only since being introduced to Indigenous people and worldviews that I have become comfortable openly talking about it. In an Indigenous context, my reciprocal relationship with Nature is common sense, and the possibility of relating with the world in the way that I do seems less strange than in MWC. My experiences in ceremony and learning from Indigenous and non-Indigenous leaders alike has enabled me to feel supported and has given me some additional language to talk about my relationship with Nature. I have developed a great appreciation for the respectful and humble Indigenous teachings that I have learned. Those that have been of particular interest to me have been those teachings that address how humans and Nature are meant to relate. I identify most with the honour and respect of Nature and with the belief of the interconnectedness of all things.

I feel a strong personal connection to this project as interacting with the natural world has repeatedly provided me with powerful emotional experiences, which have led to a richer understanding of myself, others, and the relationships between us. In my work as an environmental educator, I have observed the positive power of solo time in Nature where students have walked away having had similar experiences to my own. I have also noticed repeatedly in my work, however, that this connection with Nature has been reduced or is altogether missing in many youth I have worked with, an observation which, sadly, is also supported by the literature (see for example Louv, 2005). I believe that in order to achieve both happiness and sustainability, we need to re-connect, or re-spiritualize the relationship between humans and Nature and foster a culture of love that extends beyond human.

Ontology and Epistemology

The best descriptor of my ontology at the time of writing this thesis is emerging animist. From my understanding, ontology is a person's way of being in the world, what a person believes to be true, and their understandings about the nature of "what is" (Blaser, 2009). An animist ontology is relational and is based on the view that the Earth is made up of interacting other-than-human persons, a term coined by Irving Hallowell in 1960 (Hallowell, 1960). Harvey (2005) provided a succinct definition of Hallowell's other-than-human persons. Other-than-human persons: "Related beings constituted by their many and various interactions with others. Persons are willful...sociable beings who communicate with others" (Harvey, 2005, p.18).

Both animate and inanimate beings may be considered to be other-than-human persons (Bird-David, 1999; Hallowell, 1960; Harvey, 2006), and other-than-human persons may not necessarily be bounded, but be seen as a series of relationships (Bird-David, 1999). Ultimately, animism is a way of understanding and being that is participatory, where each person is not separate, but is seen as a relationship to everything else, (Bird-David, 1999; Harvey, 2005; see also Blenkinsop & Piersol, 2013).

An animist ontology alters and decolonizes the western paradigm in which I have been encultured where humans are perceived to be situated above and separate from Nature. Rather, following an animist ontology, I see humans as a valued part of an interconnected, and interrelated web of beings where change in any one being results in change in others (Bird-David, 1999; Harvey, 2006). For me, this animist language and scholarship provides the necessary scaffolding to develop ecologically spiritual relations with Nature through loving and meaningful connections with other-than-human persons. As I adopt this ontology, I emphasize

the importance of relationship, interconnectedness and communicative capacity in the world (Barrett, 2013; Harvey, 2006).

A strong relationship exists between animism and decolonization. Decolonization has been defined as the spiritual, social, political and psychological process of “revitalization and reformulation of culture and tradition” (Smith, 1999, p.110), through the exposure and replacement of dominant discourses and practices held in place and reproduced by Western institutions. My research is well situated within the discourse of decolonization as it works to re-imagine human-Nature relationships beyond those imposed by colonial structures. Stuckey (2010) explained the link between animism and decolonization as she sees it: “Animist ways of knowing contribute to decolonizing because through them we can imagine more vital and reciprocal ways of relating to Nature, ways of relating that value agency and intention in beings formerly regarded as ‘things’” (Stuckey, 2010, p.202).

In recent years, the call from scholars for decolonized environmental education practice, and environmental education research, has become louder and more prolific, with an emphasis on re-connecting with the land as one of many starting points on this journey (Korteweg & Russell, 2012; Paperson, 2014; Root, 2010; Tuck, McKenzie, & McCoy, 2014). To move toward a relational ontology⁵ where one understands one’s self to be in relation to all others⁶ and their histories, to relate to Nature with awe and wonder, and to actively learn from the land, are all part of decolonization, thereby making it an inherent part of building spiritual relations with Nature.

As a person who has only recently discovered animism as ontology I am, in a sense, “trying it on.” My ontology continues to shift as I grow and experience the world, but it is my

⁵ One example of a relational ontology is animism. There are many others

⁶ Human and other-than-human-persons alike

understanding that my ontology is moving toward a more participatory and relational one, grounded in respect, awe of the Earth, love, and ecological spirituality. This way of being and knowing the world, relational and interconnected, is one that I believe the human world needs to embrace in order to become sustainable.

The ontology a person takes up, directly affects the epistemologies he/she has access to. I have found that one of the major strengths in adopting an animist ontology is that it has given me access to a wide range of ways of knowing that otherwise would not have been available to me. Epistemology can be described as the relationship between a person and his/her knowledge (Denzin & Lincoln, 2005) or more simply, it can be understood as a person's ways of knowing. In the exploration of animism as my ontological position, I have been working on balancing my epistemologies to draw on both the rational and transpersonal. Transpersonal experiences may be described as those in which, "the sense of identity or self extends beyond (trans) the individual or personal to encompass wider and deeper aspects of humankind, life, psyche, and cosmos" (Vaughn & Walsh, 2000, p.1800). I often rely heavily on those ways of knowing supported by MWC, which are predominantly linear, rational, mechanistic, and reductionist. That said, I have also been pushing myself to incorporate decolonized, transpersonal and relational knowing into my daily life and in this thesis. These ways of knowing involve developing understandings of the world through relationships, experience, embodied knowing, reflexivity, and dreams, just to name a few. For example, when I paint with Nature following the Creative Nature Connection (Flowers et. al, in press; Lipsett, 2011) the knowledge held in my body is directly connected and related to the place in which it is created. In the exploration of the new (to me) ontology, and epistemologies, I continue to learn and grow, and so do the ways in which I come to know.

Rationale and Significance of the Study

Under the influence of Modern Western Culture (MWC) (Beeman & Blenkinsop, 2008) limited progress has been made in achieving environmental sustainability, despite a growing body of knowledge about the causes of the current trajectory of the planet's life systems (Berry, 1999; Bowers, 1997; Ingold, 2000; Kollmuss & Agyeman, 2002; Macy & Brown, 1998; Plumwood, 2002). Literature in the field of environmental thought (e.g. Abram, 1996; Plumwood, 2002), as well as EE points to deteriorating human-Nature relations as a contributing factor to many existing environmental problems (Griffiths & Preston, 2004; Hart, 2003; Lipsett, 2011; Newman & Dale, 2013; Rennie, 2008; Thomashow, 1995). The relationship between humans and Nature has changed significantly over time from one of human reverence for the Earth, to one where the Earth is an object for human use (Berry, 2006). The current lack of spiritual relationship with Nature often justifies the mistreatment of the Earth's vital systems (Coates, 2004; Kumar, 2013; Nollman, 1990; Sponsel, 2012). Many claim that as the divide between humans and Nature grows, significant barriers to thoughtful and sustainable ways of living have emerged, and reconnecting, or healing this divide is essential in the movement toward environmental sustainability (Bai, 2013; Berry, 2006; Hart, 2003; Harvey, 2005; Ingold, 2006; Macy & Brown, 1998).

To address this problem, this research *examines barriers* to human-Nature relations at a spiritual level. It *explores dominant discourses* that act on middle years students' and determine what is possible for student-Nature relations in a public school setting. The language of spirit is used to acknowledge the fundamental epistemological and ontological shift I, and many others (e.g. Beringer, 2006; Berry, 2006; Coates, 2004) believe is required for MWC to move toward sustainability. In essence, this research responds to the human-Nature divide and takes steps

toward sustainability by decolonizing, re-spiritualizing and improving teaching and learning practices for spiritual relations between humans and Nature.

Terminology

Nature.

Many terms in scholarly work have been given to the natural world to address the position of humans in relation to it. David Abram (1996) used the term “more-than-human,” in reference to the natural world, to: 1) avoid reinforcing the hierarchy of humans over all else, 2) to avoid anthropomorphizing the natural world and 3) to recognize that humans are not the only living beings on the planet. Along the same vein, but grounded further in ontology and individual beings-in-relation, animists have employed the term, “other-than-human persons” (Hallowell, 1960) to refer to the beings that make up the world. The emphasis on ‘persons’ rather than on the, ‘more-than-human’ gives equivalent status to all persons in relation to one another, rather than measuring them solely against humans. Persons have the potential to have agency, volition, and communicative capacity (Barrett, in press; Hallowell, 1960; Harvey, 2005) and can take many different forms that are to be respected, including rock-persons, tree-persons, bear-persons, human-persons and thunderbird-persons (to name a few) (Harvey, 2006).

The word “Nature” has also been widely used to represent the natural world in academic writing (Davies & Whitehouse, 1997; Kellert, 2007; Rountree, 2012). It has been especially prominent in western environmental education (Arhar & Buck, 2000; Chambers, 2008; Fawcett, 2002; Kalvaitis & Monhardt, 2012) as it is a term that people relate to and easily understand. That said, the term has also been criticized, as it is understood differently depending on cultural and historical context (Russell, 1999).

In my research, I use the word Nature while acknowledging the problematics around the term. The word Nature is not meant to distance humans from the rest of the world, nor represent a wild or pristine place apart from human life, but rather, it is used to simply represent a whole living system and to situate humans within it and therefore, as part of it. I have chosen to use a large N to pay humble respect to a world greater than human. To me, the “N” represents spirit, life and mysticism, and stresses that humans are dependent on Nature and not the other way around.

Spirit and love.

A primary goal of this research is to develop an understanding of how we, as educators, can help youth build spiritual relations with Nature in the context of public education. Achieving this aim has the potential to take small – or perhaps even large – steps to help shift MWC to a healthier and more sustainable way of living. The term *spiritual relations* to me, describes the kind of relationship Thomas Berry (2006) called for where humans are considered to be a single interconnected and interrelated part of a whole Earth community. Spiritual relations with Nature are also grounded in love of and for Nature, and can be defined as *ecological spirituality*:

The realization or experience of a connectedness to all things; and a sense of awe and wonder at the spectacular diversity, complexity and creativity that exist in the life-forms and geology on the planet. [Ecological spirituality] involves a worldview, which not only values all life forms and all of Earth, but sees humans as but one of the many species which have equal claims to existence and to fulfillment. (Coates, 2006, p. 5)

I, along with other scholars in the field of environmental thought and education, (Bai, 2013; Macy & Brown, 1998; Orr, 2004), believe that to view the world with awe and wonder and to recognize the interconnectedness of all things and adopt an ecological spirituality, an

emotional bond and humble respect between humans and Nature is required. The best word I have to describe this bond is love. In this way, love of, and for Nature, of which humans are a part, may act as a precursor for developing spiritual relations.

For the purposes of my project, the use of the word *spiritual* is not synonymous with, or necessarily linked to, the word *religious*. *Connection* or *connection with Nature* is often referred to in EE literature (Beery, 2012; Cheng & Monroe, 2012; Eagles & Demare, 1999; Ernst & Theimer, 2011; Fawcett, 2002; Johnson & Manoli, 2011; Kalvaitis & Monhardt, 2012; Watson, 2006), but a clear and consistent understanding of what makes up *connection* has not yet been established (see Blenkinsop & Piersol, 2013 for one possible typology). Here, I distinguish between the term *spiritual relations*, and *connection*, because for me, ‘*spiritual relations*’ implies love of, and for, Nature, which *connection* may not.

Sustainability.

This study is grounded in the desire for humanity to reach a state of ethical sustainability where the well-being of humans and Nature are of primary concern. For the purposes of this project, I use the United States Environmental Protection Agency’s (2014) definition of sustainability to describe the desired goal:

Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.

Research Aim

This research explores discourses of supports and barriers to spiritual relations with Nature for students in school. It also works to develop an understanding of how educators can

encourage spiritual relations for youth and Nature in order to shift MWC towards an ethical relational ontology.

Research Objectives

1. Assess existing student-Nature relations as perceived by students
2. Develop and implement a series of activities for students that respond to any student-Nature divisions that emerge
3. Identify and interpret dominant discourses, and implications of these, regarding student-Nature relations in the context of school.
4. Determine some supports and barriers to teaching and learning for spiritual relations with Nature.

Research Questions

1. In what ways might educators enhance teaching and learning for spiritual relations with Nature?
 - a. What are some of the barriers that prevent such relations for students and teachers?
 - b. What are some supports that can help students and teachers move beyond these barriers?
2. How do we as teachers and learners support and nourish students having a relational ontology where a love for Nature is okay?

CHAPTER 2: LITERATURE REVIEW

Human-Nature Divide

Modern western culture.

Modern Western Culture (MWC) is the dominant constellation of beliefs, values, and practices that underpin contemporary western societies and is rapidly spreading globally (Beeman & Blenkinsop, 2008). As noted above, under the influence of MWC little progress has been made working toward sustainable living, despite a growing body of knowledge around the current trajectory of the planet's life systems (Berry, 1999; Bowers, 1997; Ingold, 2000; Kollmuss & Agyeman, 2002; Macy & Brown, 1998; Plumwood, 2002). With the growth of MWC has come the growth of the divide between humans and Nature. Although divergent voices suggest otherwise (e.g. Gaia theory, some forms of religion), a dominant thread of MWC focuses on economic growth, technological advances, and materialist and mechanistic ontology, which support continued consumption and pollution of the Earth's lands, waters, and air (Bai, 2012; Plumwood, 2002). As such, MWC has marginalized spiritual relationality, and created a significant barrier to thoughtful and sustainable ways of living as part of a single Earth community (Bai, 2009; Barrett, in press; Berry, 2006; Plumwood, 2002). First steps to alleviating the existing human-Nature divide may be to redefine how humans can relate with Nature.

Relationships that separate humans from Nature have been discussed as a problem in literature stretching back to early environmental philosophers including, but not limited to, David Henry Thoreau, and Aldo Leopold. For example, in his stories from *Walden*, Thoreau wrote about the feelings of oneness and connectedness he experienced with Nature while in the woods, sharply contrasted with the loneliness and disconnect he felt in human society, particularly in

town life. Despite the proximity of the two places, he wrote as though these experiences and feelings came from distinct, independent and separate worlds, an early indication of the already present divide between humans and Nature (Thoreau, 1854). Almost one hundred years later, Aldo Leopold echoed Thoreau's concerns in his land ethic included in the *Sand County Almanac* (Leopold, 1949). He wrote that the ways in which humans and Nature relate are fundamental to environmental problems. At the time of writing, and not unlike today, these relationships were grossly misunderstood by western culture as strictly economic relationships that provide privileges [to humans], but demand no responsibilities in return. He stressed that human individuals are part of a single interconnected community, "where the boundaries of community include soils, waters, plants, and animals, or collectively: the land" (p. 243). Roughly another 40 years later, additional scholars echoed Leopold's sentiment of the need for change in how humans relate with Nature (Bateson & Bateson, 1987; Berry, 1988; Capra, 1988; Carson, 1962).

Following these works, human-Nature relations have remained in academic focus through to the 21st century. The discussion of these relationships gained momentum with the rise of the North American environmental movement in the late 1960s that grew out of the public recognition of the deteriorating state of the planet's resources (primarily air and water) (Gottlieb, 2005; Millenium ecosystem assessment, 2005; Smyth, 2006), and has carried through as the health of the planet continues to decline. Academic literature that stresses humanity's need to re-think the dominant culture's hierarchical human-Nature relationship is spread across a wide range of fields including, but not limited to: environmental psychology (Bell, 2003; Oakley & Watson, 2010; Thomashow, 1995), environmental philosophy (Abram, 1996; Ingold, 2006), environmental history (Cronon, 1996), environmental education (e.g. Bai, 2009; Thomashow, 1995), eco-spirituality (e.g. Sponsel, 2012), deep ecology (e.g. Ehrlich & Ehrlich, 2009),

Indigenous studies (e.g. Cajete, 1999a; Mohawk, 2010), contemporary religion (e.g. Harvey, 2005; Rountree, 2012), and policy sciences (e.g. Barrett, in press). Although the examples mentioned above each approach human-Nature interactions from slightly different perspectives, the overarching argument is aligned: MWC needs to shift away from the disrespectful hierarchical interaction between humans and Nature and regard the world as a single community in order to achieve sustainability. A brief outline of four key characteristics of MWC with regard to human-Nature relationships as identified in academic literature, follows.

Characteristic #1: MWC views humans as separate from and above Nature.

It is no wonder that humans have devastated the planet so extensively. It was only a collection of objects to be used.

(Berry & Tucker, 2006, p. 18)

The dominant model of relations between humans and Nature in MWC is hierarchical. Scholars argue that this hierarchy is the root cause of current environmental problems (Abram, 1996; Barrett, in press; Beeman & Blenkinsop, 2008; Berry, 2006; Bowers, 2010; Ingold, 2000; Plumwood, 2002; Zajonc, 2006). By placing Nature on the hierarchy below humans, it has been reduced to a commodity solely for human use. There are multiple origins for this separation between humans and Nature, however this sense has been around for a long time (Berry, 2006). In the recent history of science, Bacon and Descartes are both prominent representatives of the line of thinking that humans are dominant over Nature (Bacon, 1561-1626/2008.; Descartes, 1644/1985). This system of thought reinforced the objectification and commodification of Nature and contributed to the development of the hierarchical relationship between humans and Nature that currently exists in MWC (Bai, 2009). New(old) (Bell, 2003; Blenkinsop & Piersol, 2013; Bowers, 2010; Oakley & Watson, 2010; Thomashow, 1995) epistemologies and ontologies

where humans are not the pinnacle of life, may provide opportunities for healing this relationship. Traditionally, Indigenous and other animist cultures have engaged in worldviews that situate humans as part of a single community that includes all other beings. This placement reflects the human dependence on, and reverence for, the sacredness of Nature, which thus works to protect it (Cajete, 1999b; Mohawk, 2010).

Characteristic #2: MWC marginalizes spiritual relations with Nature.

To the disenchanted, de-animated, objectified consciousness, the world is a place with corresponding characteristics. We then act out our perception and destroy the world, backwardly justifying that this soulless, machine-like world exists instrumentally as resources for our consumption.

(Bai, 2009, p.148)

Currently the dominant view in MWC is that the Earth itself is without spirit. The Cartesian and reductionist worldview where the system is understood to be nothing more than its parts, has helped to marginalize the worth and validity of spirit in MWC (Bai, 2009), and furthered the separation between humans and Nature. This quality enables humans to extract and exploit its resources without much consideration for the consequences to Nature and has contributed to the globe's current environmental problems (e.g. climate change, desertification, species loss etc.) (Bai, 2009; Coates, 2004; Plumwood, 2002). Other models for relating with the Earth support loving and spiritual relations with the more-than-human world. For instance, Rountree (2012) described a neo-pagan worldview where all of Earth's beings, including tsunamis, mosquitoes and cancer cells (and all other offspring of the Earth) are considered to be kin with humans and hold both spirit and life. Similarly, many Buddhists adopt a worldview centered around intersubjectivity where, "the other [is known] as a "fellow being" whose identity

and welfare are bound up in some ways with one's own" (Bai & Scutt, 2009, p.99). Many Indigenous cultures experience non-humans as beings with spirit, life and purpose (e.g. Cajete, 1999a; Davis, 2009; Hallowell, 1960; Knudtson & Suzuki, 1992; Meyer, 1998). This inherently causes the relationship between humans and Nature to be one of respect and love. For example, the relations between the Indigenous, "hunter of good heart," and the hunted described by Cajete (1999) are respectful, intimate, communicative and ritualistic in spite of their predatory Nature. The presence of spirit in the other-than-human⁷, and the interrelatedness between the hunter and hunted causes respectful, loving and humble, albeit physically brutal, relations between them and leads to more sustainable ways of living (Cajete, 1999a).

Characteristic #3: MWC privileges mechanistic epistemology.

Human-centredness promotes various damaging forms of epistemic remoteness, for by walling ourselves off from Nature in order to exploit it, we also lose certain abilities to situate ourselves as part of it.

(Plumwood, 2002, p.98)

MWC is currently dominated by a single way of knowing that validates mechanistic and reductionist thinking (Beeman & Blenkinsop, 2008). Over time, epistemologies and ontologies that deviate from this way of thinking have been marginalized and invalidated (Bai, 2009; Barrett, in press; Stuckey, 2010). Many ways of knowing beyond the rational, are currently under-represented in research (Barrett, 2011) and have often been challenged to prove what they know by rational means, further undermining their worth. This hierarchy of knowledge systems has positioned rationalism as superior, and has privileged humans over the rest of Nature (Ingold, 2000; Rountree, 2012). In the process of marginalizing ways of knowing beyond the rational,

⁷ See Hallowell (1960)

MWC has moved away from knowing through the senses and embodied understandings of the world (Abram, 1996; Bai, 2009). In order to develop renewed respectful relations as part of Nature, humans need to re-learn how to feel the world (Bai, 2013; Flowers, Lipsett, & Barrett, 2014). Privileging mechanistic epistemology and ontology has contributed to the dominance of the English language as a means of control and command in the process of colonization (Britton, 1999; Viruru, 2001). The limitations of the English language are discussed further below.

Characteristic #4: MWC shapes and limits experiences with the use of English as the dominant language.

The problem in discussing...animist worldviews and lifeways is that European language and discourse rarely recognize the personhood of...other-than-humans.

(Harvey, 2006, p.12)

Language has been privileged as the dominant form of representing the world in colonized society (Viruru, 2001). The words we use in describing our experiences directly affect the kinds of experiences that are possible. The English language often limits the way in which relations with Nature can be expressed, and can reinforce the human-Nature divide in subtle and overt ways (Bell, 2003; Blenkinsop & Piersol, 2013; Bowers, 2010; Oakley & Watson, 2010; Thomashow, 1995). An example of a limitation of the English language is that anything without gender is considered to be an object; without life, or spirit. In languages from animist cultures, by contrast, the distinction between the animate and inanimate is not always dependent on gender. For example, it is possible in the Ojibwa language to consider trees and rocks as animate (Hallowell, 1960). When Nature is described as animate, the relations between humans and Nature can shift from hierarchical to one of kinship (Harvey, 2006; Rountree, 2012).

Not only should English speakers be aware of the limitations of the language to situate themselves in the world (Bell & Russell, 1999) they also need to recognize that words have a history, and that there are taken-for-granted conceptual foundations connected with them. According to Bowers (2010), if these foundations are neglected, MWC may continue to use the tools that have contributed to the current ecological crisis to try to remedy it, which he believes to be a futile process. These tools include modern narratives that privilege some ways of knowing over others, using language to sustain patterns of inequality and re-enforcing the idea of individual intelligence as more important than communal intelligence, which promotes the human-Nature divide (Bowers, 2010). As the divide between humans and Nature grows, significant barriers to thoughtful and sustainable ways of living have emerged. First steps to alleviate the existing human-Nature hierarchy in MWC may be to redefine how humans can relate with Nature to include spirituality and connectedness (Oakley & Watson, 2010).

Conclusion.

The four characteristics identified above must be addressed to help MWC move toward sustainability and a relational ontology. This study works toward making space for other ways of knowing by contributing to a growing body of research that encourages spiritual student-Nature relations and attempts to bring to light dominant discourses that currently prevent such relations.

Student-Nature Relations

Prior research on student-Nature relations.

Student-Nature relations have been the focus of much environmental education research. In this field, attempts have been made to determine: 1) The level of connectedness of students to Nature which, for the most part, have shown increased connectivity after taking part in EE

programs, although ceiling effects are often at play (Beery, 2012; Blenkinsop & Piersol, 2013; Ernst & Theimer, 2011; Kalvaitis & Monhardt, 2012), 2) The types of EE experiences that promote the greatest learning in students, which tend to be those that involve multiple ways of knowing, free choice, meta-cognitive and are experience based (Ballantyne, Anderson, & Packer, 2010; Campbell, 2010; D'Amato & Krasny, 2011; Griffiths & Preston, 2004; Heimlich, 2007; Neilson, 2007; Williams, 2012), and 3) How experience in place makes a difference in EE programs, which have found that place is critical to fostering connecting students to Nature (Griffiths & Preston, 2004; Jardine, 1998; Payne, 2005) and may contribute to positive environmental behavior (Griffiths & Preston, 2004; Knapp, 2005; Stevenson, 2011; Tooth & Renshaw, 2009). The majority of studies have followed a group of students through an EE program and gathered data before, during and after the experience to see change in values and behaviour. Findings vary, however. Often it is found that attitudes and beliefs change immediately following the experience, but may not last. Additionally, there continues to be much debate around how directly change in attitude correlates with change in behavior (Eagles & Demare, 1999; Hungerford & Volk, 1990; Kollmuss & Agyeman, 2002; Manoli, Johnson, & Dunlap, 2007; Shepardson, Niyogi, Choi, & Charusombat, 2009).

Measuring connectedness to Nature.

A number of quantitative scales have been developed to attempt to measure environmental attitudes, worldview and the more tangible aspects of "Nature connection." These scales include Dunlap and Van Liere's NEP (1978), Bogner and Wilhelm's 2MEV (1996), and Johnson and Manoli's combined and adapted version of the two (2007). In such studies, criteria of positive environmental attitudes include factors like: enjoyment of Nature, care with resources, concern for environment as a system, and interest in and affection for Nature. These

studies have provided great insight into environmental attitudes and behaviour, but have not, in my estimation, included any measure of the spiritual components of “connectedness”. More recently, scholars (e.g. Cheng & Monroe, 2012; Mayer & Frantz, 2004; Nisbet, Zelenski, & Murphy, 2008), have attempted to create scales of Nature connection that focus on relationality as a major part of connectedness. They have returned to Aldo Leopold’s idea of connectedness (1949) and incorporated measuring sense of community, kinship and belonging in determining relationship (connection) with Nature. I argue that these measures are an attempt to include spirituality in defining connection to Nature, although they are not explicitly stated as such. Questions in these surveys deal with sense of oneness, empathy and relation with Nature and parallel Palmer’s definition of spirituality (see section on Spirit) (Palmer, 1999).

Conclusion.

This study builds on work that has found that connection is inherently linked with relation, and that people who experience greater connection, ecological spirituality, and love, have more positive environmental behaviours (Mayer & Frantz, 2004). In response to the findings, rather than attempting to alter student perceptions through isolated workshops, this study works to uncover some dominant discourses that act on students with regard to relations with Nature. This research describes student perceptions of their relations with Nature, and works to (re)-introduce them to the possibilities of developing spiritual relations and a relational ontology. By breaking down the discourses, understanding what they are, how they are reproduced and/or disrupted and the implications of adopting them, supports to teaching and learning for spiritual relations with Nature may be developed in this work.

CHAPTER 3: METHODOLOGY, METHODS AND THEORETICAL FRAMING

Methodology

Action research.

Action research (AR) is a practical problem-solving methodology with an emancipatory focus (Elliott, 2011). It is frequently used in education research due to its transformational, social, and collaborative approach (Hendricks, 2006), with two main purposes: 1) improve practices, and 2) generate theory (Carr, 1995). It is the balance between generating theory and creating positive change that causes action research to stand out from other research methodologies where theory generation is the primary goal.

AR is most often drawn on in social professions such as health care and education where practitioners investigate, evaluate and alter their own work to make positive change. Specifically within the field of education, AR has been described as a self-reflective spiral where teachers observe a problem, plan a change, implement and observe the process and outcomes of the change, and then reflect on their observations and

experiences. They then make further observations, re-plan and start the cycle again (Kemmis & Wilkinson, 1998) (see figure one). AR is rooted in learning from experience and does not seek a final outcome because it is a living, constantly changing process and in this way parallels the practice of teaching and learning (McNiff & Whitehead, 2002). This study is designed using AR to ensure that the process itself is relevant, practical and directly affects change in practice.

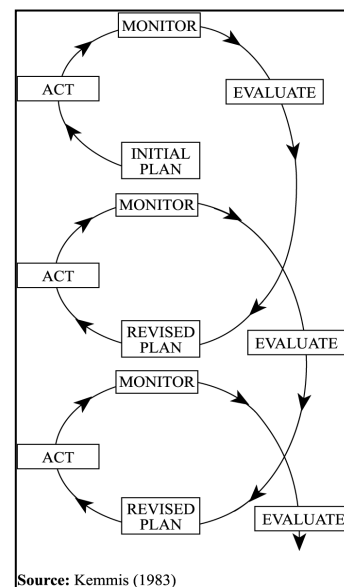


Figure 1: Action research cycle

In terms of this project, each part of each stage informed what data were sought, and how they were collected in subsequent stages. For example, after each stage of data collection, all transcripts were compiled and coded for common themes, which were later broken down to identify the discourses⁸ embedded within them. These common themes then informed the activities that were done and the questions that were asked in the next stage. For a more detailed explanation of how each stage was influenced by the information uncovered previously, please refer to the methods section later in this chapter.

AR is uniquely suited to this project because under this framework, the researcher and participants are reflexive and attempt to make informed practical improvements to teaching and learning. The theoretical lens of feminist post-structuralism complements AR due to its emancipatory focus on affecting positive change.

Feminist post-structuralism.

According to Barrett (2005), feminist post-structural analysis, “brings a political agenda to post-structural theorizing and focuses on its reconstitutive possibilities” (Barrett, 2005, p.88). It adds an activist, or emancipatory focus to analysis in order to affect positive social change (Lather, 2000; Weedon, 1997). According to Gough and Whitehouse (2003), “feminist post-structural analysis allows the description of socio-cultural discursive practices that would otherwise be absent from the environmental literature, and as such, informs more completely our collective understandings of contemporary complexity” (p.40) with the goal of leading toward social change. The deconstructive nature of feminist post-structuralism enables power relations to become evident and can provide insight as to why social systems operate as they do. As a

⁸ Discourses can be described as the shared cultural narratives that guide and determine what is considered to be conventional, acceptable, or a “normal” mode of being, and subsequently what is unconventional, unacceptable or an abnormal mode of being (Barrett, 2005).

result, this theory has the potential to influence creating change in social fields (e.g. nursing, women's and gender studies, environmental education, education etc.).

Feminist post-structuralism rejects a single truth or reality. It also critiques grand-narratives (or discourses) that re-inscribe dominant cultural values and practices (Denzin & Lincoln, 2005). It is a deconstructive and pluralistic theory often credited to the works of Jacques Derrida, Jacques Lacan and Louis Althusser among others, including the later works of Foucault (Weedon, 1997). Although feminist post-structural theorists have diverse beliefs, the main tenets of post-structuralism can be summarized in relation to the following four ideas:

1. Knowledge and truth,
2. Language and discourse,
3. Deconstructing discourse and power relations, and
4. Discourse, subjectivity and agency

(Barrett, 2005; Davies, 1993; St. Pierre, 2000; Weedon, 1997)

1. Knowledge and truth.

Feminist post-structuralism accepts that no fixed and stable universal truth exists (Azzarito & Solmon, 2006) because as Gough and Whitehouse (2003) described, "truth cannot be separated from the procedures of its production" (p. 38). What is known cannot be independent from the way and the context in which it has come to be known. For example, rationality is understood to be both historically constituted and relative because it is firmly embedded in the discourses of the dominant culture which privileges some ways of knowing and being over others. According to St. Pierre (2000), "post-structuralism acknowledges and investigates multiple forms of rationality produced by the codes and regularities of various discourses and cultural practices" (p. 487). The theory understands knowledge and truth to be

fluid, relational and contextual which enables it to acknowledge and operate within diverse knowledge systems.

2. Language and discourse.

For feminist post-structuralists, language is where both social organization and the individual sense of self are produced. Feminist post-structuralism stems from this position in that it links language, social organization, individual subjectivity and power. It emphasizes language as producing social meaning rather than reflecting a single reality (Denzin & Lincoln, 2005). Discourses can be defined as the shared cultural narratives that guide and determine what is considered to be conventional, acceptable, or a “normal” mode of being, and subsequently what is unconventional, unacceptable or an abnormal mode of being (Barrett, 2005). Generally, feminist post-structuralists believe that discourse has the power to shape reality and language can be understood as competing discourses (Denzin & Lincoln, 2005). Davies (1993) explained that through using discourses, “we speak and write ourselves into existence” (p. 1). In this way discourses have the ability to influence interactions in social institutions, epistemologies, and individual subjectivities. Not only do discourses influence interactions, but social practices, including actions and physical space, also create discourses. As Davies (2000a) explained, individuals are not distinct from the social landscape, but are fluid within it. It is important to note that all discourses operate with assumptions, although the key to actively choosing those to resist or adopt is in having an explicit understanding of those assumptions which we are limited in knowing (Weedon, 1997).

3. Deconstructing discourse and power relations

Feminist post-structuralism can be an effectual theory because it can shed light on the need for new discourses, or ways of thinking, when problematic power relations within the

existing discourses become evident. Deconstructing discourses to determine where they come from, what upholds them, and if/where oppression exists within, or as a result of them can enable positive social change. Feminist post-structuralists contend that power is always present in human relationships (at the individual and institutional levels and everywhere in between) and that this power is not fixed, but can be altered or shifted (St. Pierre, 2000). Breaking down discourses and examining their interactions helps to make visible power relations and the ways in which dominant discourses are produced and re-produced. This process also works to uncover how dominant discourses maintain particular ways of being, acting and thinking. As one example of how discourse works, Davies (2013) pointed to binaries such as human/Nature or man/woman as creating and maintaining problematic relations of power. She argued that they are troublesome, because one half is dominant and the other subordinate. The subordinate is given the position of “other” which reinforces and maintains the dominant systems of power.

Davies (2003) spoke to the ability of feminist post-structuralism to promote and create social change:

If we see society as being constantly created through discursive practices then it is possible to see the power of those practices, not only to create and sustain the social world, but also to see how we can change that world through a refusal of certain discourses and the generation of new ones. (p. xiii)

Feminist post-structuralism has the ability to generate mobilized knowledge by making relations of power evident and explicit, which in turn may promote the adoption of new, more socially just discourses. Once identified, alternative discourses may be adopted if necessary (see the section on Agency below). Feminist post-structural theory has frequently been applied in education research where the research goal is often to do with understanding social interactions,

and what drives them (e.g. Azzarito & Solmon, 2006; Davies, 1993, 2003; Whitehouse & Evans, 2010).

4. Discourse, subjectivity and agency

Weedon (1997) described subjectivity as, “the conscious and unconscious thoughts and emotions of the individual, her sense of herself, and her ways of understanding her relation to her world” (p. 32). It is a fluid state of being that is renegotiated at every interaction. Feminist post-structural scholars reject the idea that a single ‘self’ exists because subjectivities change as we move through different contexts and relationships. Landing somewhere between the humanist view that individuals are autonomous free actors, and the structuralist view that individuals are shaped solely by surrounding social structures, the feminist post-structuralist sees the subject as having some agency by being able to choose which discourses to take up and/or resist, while at the same time being forced into others (St. Pierre, 2000). Subjects both actively and inactively take on discourses that help to construct their identities and worldview. If one is able to acknowledge and make visible the dominant discourses, their origins, power relations and implications, the subject may be better equipped to resist or accept these discourses into his/her worldview (Barrett, 2005).

The subject is constantly shifting; it is contradictory and a work in progress (Gannon & Davies, 2007). Feminist post-structuralists argue that a subject’s identity is a product of layers of culturally produced discourses (Barrett, 2005; Davies, 2004; St. Pierre, 2000; Weedon, 1997). The discourses that shape the subject shift and change over time and experience, in terms of power and magnitude, but a subject always operates within discourses. Feminist post-structuralists see individuals as having agency, however, in that they are able to disrupt discourses by actively choosing to adopt alternatives (Barrett, 2005). This is not to argue that

from a feminist post-structural perspective individuals are free acting and autonomous. Davies (2004) made this clear when she argued that, “agency is never autonomy in the sense of being an individual standing outside social structure and process” (p. 4). Rather, she argued that individuals can actively choose which discourses to take up within these social structures and processes, but can never be free from discourse.

My relation to the data

As I moved through my analysis, I adopted the principles related to research practice and understanding subjects as outlined by Davies (2004). First and foremost, I recognize that I, as the researcher, am not separate from the data, but rather I relate to and interpret within the data and my own subjectivities, to create meaning. The kind of power relations that exist between the research participants and me also influence the interpretations I am able to make of the data. The student-teacher relationship is one of unequal power and although I attempted to “level the playing field,” it would be a mistake to deny that such a power differential exists.

Accounting for Gender

During the interview selection process, I spoke with an equal number of boys and girls to ensure both genders were represented equally and tried to reflect that here. I paid attention to gender as I read through the data provided by the students in this research. No cases arose in the analysis where male or female students expressed or named discourses in a significantly different manner from one another. A more complete gender analysis could be carried out on the data collected in this research in the future.

Feminist Post-structuralism and Spirituality

As Coates (2004) described, building spiritual relations with Nature can be linked with shifting toward a worldview that is outside that of the dominant view held by MWC. As an

individual connects spiritually with Nature, he/she may start to experience a shift in how he/she views the world and his/her place within it (Coates, 2004; Higgins, 1996). I argue that this ontological shift moves toward a relational way of being in the world. In order to make this change, understanding where, why and how cultural norms are created and/or held in place may be key. Feminist post-structuralism, as a deconstructive form of analysis, works to develop these understandings and make visible power relations that influence the discourses we adopt and the contexts within which we adopt them.

Research Participants

Research partnership.

GreenSchool⁹ was invited to take part in this research project, in part because although the program often immerses students in Nature, developing student-Nature relationships is not a focal point. As a result, students may not have been thinking actively about their relationships with Nature or consciously changing their behavior as a result of the program. Paradoxically, I felt that the program's focus on aspects of learning outside of student-Nature relationships enabled me to observe how students genuinely enacted dominant discourses with regard to their relations with Nature. These discourses are still present and reproduced in the program, without perhaps having been acknowledged in the past. The instructors were enthusiastic about partnering in this research and were well positioned to implement any pedagogical changes identified. The instructors are often asked to lead professional development workshops both provincially and nationally for their peers, which increased the potential for immediate and long-term positive impact from the study.

⁹ The name of the program has been changed to protect the identity of the research participants

GreenSchool.

GreenSchool is a public school program for students in their early teens. The program emphasizes leadership and teamwork through culturally responsive, engaging, experiential, and integrated problem-based learning. While in the program, students are exposed to a range of activities that challenge them to stretch their comfort zones and work together to grow and build confidence. The program is designed to ensure that students spend more than 60% of their school year learning outside of the traditional classroom walls. Students take part in a combination of longer trips outside of the city (e.g. camping and canoe trips), and daily trips within the city limits (e.g. museum, swimming pool, park visits) that work to push their boundaries and expose them to activities that promote health and well being while covering curriculum requirements.

Classroom setup.

Although students in GreenSchool spend the majority of their time outside of the classroom, they also have access to a classroom space. The physical setup of the room removes barriers between the students and encourages a family atmosphere. The instructors work each year to create this supportive family relationship within the class, primarily through leadership training. In this training, students work to disrupt any negative perceptions they have about themselves and build their confidence. The program's focus on independence and leadership stresses that students are given control of themselves and their learning. They are encouraged to make mistakes and take on the responsibility of fixing them. They are in charge of ensuring everyone feels like part of the family. The ultimate goal is to keep the family safe and happy.

A requirement of GreenSchool is that students have a professional attitude toward themselves, their peers, their instructors and the program content. Through the training they

receive in this program, students graduate with a better understanding of the importance of communication, collaboration, respect and responsibility. In this way, students gain confidence and learn to accept one another for who they are, which can work to disrupt discourses about how important it is for them to fit in.

The students.

The GreenSchool class was made up of 28 students, 13 boys and 15 girls. GreenSchool is designed for at-risk youth who show a degree of financial, educational and/or emotional need as well as the desire to be in the program. It is free for students to join and all of the necessary outdoor gear is provided to make it accessible to all. Many students who take part have shown potential for leadership in their regular schools, but they have been unable to realize that potential for a wide variety of reasons. Students join GreenSchool for many different reasons. In general, the program often attracts students who want to learn by doing and have struggled in “regular” school, as well as those who have a curiosity about being active in the outdoors.

Methods

Overview of methods.

Stage one:

May/June 2013

- 1) Pilot iMovie to ground-truth problem statement¹⁰ and support activity development

Stage two:

September 2013

¹⁰ The view that humans are separate from and above Nature prevents spiritual and respectful relationships in the Earth community. As a result, the health of both human and other-than-human-persons is at risk. Privileging certain ways of knowing over others reinforces the human-Nature divide, expressed in MWC in many ways, including in the practice of teaching and learning.

- 1) Introductory iMovie with 2013-14 class to get to know research participants and support activity development
- 2) Develop and implement activities
 - a. Solo-time in provincial park
- 3) iMovie reflections on activities
- 4) Unstructured follow up interview with ten students

Stage three:

November 2013

- 1) Develop and implement activities
 - a. Solo-time in urban park
- 2) iMovie reflections on activities
- 3) Unstructured follow up interview with ten students

The following table outlines the codes used to identify where data originated in this thesis:

Table 1.0: Data codes in this thesis

Data Collection Method	Stage	Code
iMovie Reflection	1	Pseudonym, Pilot
iMovie Reflection	2	Pseudonym, IM1
iMovie Reflection	2	Pseudonym, IM 2
Student Interview	2	Pseudonym, INT 1
iMovie Reflection	3	Pseudonym, IM 3
Student Interview	3	Pseudonym, INT 2

Rationale for methods.

iMovies:

Students created self-video recordings where they answer open-ended journal style questions about their relations with Nature using iPads and iMovie software. Open ended questions have been used effectively and appropriately in environmental education to: 1) understand students' connectivity to Nature (Loughland, Reid, Walker, & Petocz, 2003), 2) explore the purpose and methods in environmental education research (e.g. Bell, 2003), 3) include student feedback in program development (e.g. Hagay & Baram-Tsabari, 2012), events in their classroom (Cappello, 2005). The primary motivation for choosing to use iMovie creation as a method of data collection in stage two is that it is a method of reflection that is often used to assess student learning in the GreenSchool. iMovie creation is both familiar and exciting to students, and allows students at all skill levels in writing to meaningfully engage in the research, ensuring that as many perspectives as possible are heard in depth.

Unstructured student interviews:

The unstructured format of these student interviews enabled both the researcher and participant to discuss the events and/or subjects that were most significant to them during the interview, which emphasized the participatory and relational aspect of the research. The researcher worked in a combined way to draw on intuition and her rational mind to generate and adapt questions that were suitable to the interview, which resulted in the development of very appropriate and relevant questions (Berg, 2001; Schwartz & Jacobs, 1979).

Solo time activities in Provincial Park:

In the stage two introductory iMovie, 56% of students responded that they spent little to very little time in Nature prior to being a part of the GreenSchool program. Additionally, 50% of

students responded that they enjoyed spending time alone in their favourite place in Nature. Based on these data, and my own personal experience with solo time activities, and a significant body of literature that supports the importance of solo time in Nature (Bobilya et al., 2005; Campbell, 2010; Daniel, 2005), I decided that I would include solo time on a regularly scheduled camping trip as a way to connect students with Nature.

Solo experience in urban park:

One of the most common barriers to spiritual relations with Nature that arose in stage two was the role of the city. This, combined with the positive feedback from students about their solo time in the provincial park led me to decide to have students complete fifteen minutes of solo time per day for three days in urban parks as the second set of Nature-connection activities in this research. Rather than provide students with activities to do as they spent their time alone, in this stage, students were given one question per day to think about as they sat. The rationale behind this decision was to see how students would respond to the challenge of being alone with their thoughts, rather than engaging in solo time through activity. Upon reflection, this may have been a design flaw in the study, or could also represent a re-inscription of a discourse about Nature and the city on my part. The activities put forward in the provincial park were based on feeling, and those in the city were based on thinking. Perhaps this is a barrier that needs to be broken down in order to develop spiritual relations with Nature, particularly in an urban setting.

Process, Reflection and Preliminary Analysis:

Stage 1: Pilot iMovie (n=15).

Process:

The main purpose of this iMovie collection was to ground-truth my problem statement, however, this stage also acted as a pilot for my data collection methods and provided me with a good understanding of the kinds of answers to expect from students.

For the pilot, I went to the GreenSchool classroom and spent a morning with the class while the instructors were in a meeting. Students had two tasks to complete over the course of the morning. One of those tasks was to create an iMovie about their relationship with Nature. After hearing a brief overview of my research project, students were instructed to find a quiet place in the school and make a self-recording of their answers to a series of questions. Five students chose to complete this task in small groups rather than individually. Fifteen students made a total of twelve iMovies. The purpose of these questions was to assess students' relations with Nature (q. 2-3 & 6), investigate any change in their relationship with Nature over the course of the program (q. 2), and their comfort level with sharing this relationship with the people closest to them (q. 4-5) in order to ground-truth the problem statement. The questions students were asked in this stage were:

1. What is your name, age, neighborhood, and where is your family from?
2. Think back to the beginning of the school year before GreenSchool. Was your idea of Nature different then? What is your idea of Nature now? Have you changed the way you act in Nature because of GreenSchool? If so, what do you do differently now, why?

3. Think about your favourite place in Nature. Describe it as best you can. What does it look/feel/smell/sound like? Are you alone when you spend your time there? What do you spend your time there doing while you're there? How does it make you feel?
4. Do you talk about your favourite place in Nature with your friends and family, why or why not?
5. If you do, what do you tell them? If not, what would you tell them if you could.
6. Is your relationship with Nature spiritual in any way? If you can, say more about that.

Reflections:

The key learnings I took away from reflecting on this stage of data collection included:

- It is important to have a relationship with the students prior to doing this kind of activity—there is a higher level of “buy in” to the project when they know and respect you as an individual;
- Keep the introduction to my project short and relevant to students so as to hold their attention;
- It is difficult to tell how engaged students are in creating their iMovies—one student who looked disinterested produced a high quality product, while others who looked engaged produced very little;
- Students pick and choose which questions (and parts of questions) to answer;
- It took about 20 minutes for students to create their iMovies;
- Some students were not comfortable video recording themselves alone;
- Some students struggled to explain their answer to the last question (is your relationship with Nature spiritual in any way).

Preliminary analysis:

After the iMovies had been created, I transcribed them using ExpressScribe software. I then created one master document that contained all students’ transcripts and thematically coded each question. Following the first stage of the action research cycle, the pilot iMovie data informed the questions that I asked in stage two. Table 2.0 below contains a summary of what was determined, and decided from the pilot stage, and the rationale behind each decision that was made.

Table 2.0: Key learnings and decisions from pilot stage

Determined in pilot	Decided	Rationale for decision
	To include questions about the students’ current relationship with Nature	Try to develop a background understanding of student experiences/relationships with Nature upon entering the program (respond to research question #1)
86% of students felt a change in their attitudes/actions toward Nature from the beginning of the program to the end. 14% reported no change. (Question #2)	Not to include this question in stage 2 or 3	Students are only partway through the program during stage 2 and 3
50% of students explained a change in their perception of Nature from the beginning of the school year (Question #2)	To include a question in Stage 2 about what the students thought of when they heard the word “Nature”	It became clear in the pilot data that students were referring to a range of things when they used the word ‘Nature,’ <ul style="list-style-type: none">• I wanted to understand their perceptions of Nature in order to more accurately describe their relationships
92% of students were able to name and describe their	To include this question in stage 2.	The responses to this question helped me to

favourite places in Nature (Question #3)		develop a sense of the students' relationships with Nature, and produced data that clearly demonstrated some of the discourses that students were acting within
50% of students spoke about their relationship with Nature with their friends and family, 50% did not. (Question #4)		
Students were split about if their relationship with Nature was spiritual in any way (33% yes, 66% no) (Question #6)		
Students were responding to questions from within discourses	To conduct a brief discourse analysis using the data collected in this stage of my research	To familiarize myself with the process and to practice identifying discourses from student responses
The discourses that became apparent included: <ul style="list-style-type: none"> • Nature is a site for connecting with other people • It is not socially acceptable to talk with friends and family about my relationship with Nature • It is not cool to love Nature in regular school • People in GreenSchooltreat Nature with respect • Our current way of living is not sustainable • Nature is “out there” 	To investigate if the stage 2 research participants name/operate within the same discourses as those in the pilot	To respond to research questions 2 & 3

Stage 2: Introductory iMovie (n=28).

Process:

Stage two marks the end of the pilot data collection. From this point forward, the research participants were the 2013-14 class of GreenSchool. This stage of data collection was designed to get to know the research participants. The information collected here helped to

ground-truth my problem statement, and also helped to inform the activities and questions for later stages of research.

This data collection took place in a local provincial park on September 19, 2013 at 1pm. The GreenSchool students were divided into three groups and rotated through three stations, one of which was iMovie making with me. Each station took approximately one hour, and all 28 students made an iMovie. The questions were similar to those asked of the previous year's class in order to further ground-truth the problem statement, and uncover student perceptions of their relations with Nature. When each group arrived, I reviewed the first six questions with the whole group to ensure that all students understood what was being asked, and then instructed students to find a quiet spot to sit alone and make their movie. Students were asked to report back to me when they had completed the first six questions, upon which time I gave them the seventh question and asked them to add their answer to their iMovie. I did this in order to eliminate bias question seven may have had on previous answers. The questions were designed to probe at understanding the students' conceptions of Nature (q. 2), their relations with Nature (q. 3-4 & 7), and how they talk with the people closest to them about their relations with Nature (q. 5-6). The questions students answered were:

1. What is your name, age, neighborhood, where does your family come from?
2. Describe what comes to mind when you hear the word Nature. Where do you think that description comes from?
3. How would you describe the amount of time you spend in Nature? Describe what you spend your time in Nature doing.
4. Think about your favourite place in Nature. Describe it as best you can. What does it look like? Feel like? Smell like? Sound like? Are you alone when you spend your time

there? Why is it your favourite? What do you spend your time doing while you're there, and how does it make you feel?

5. Do you talk about your favourite place in Nature with your friends and family? Why or why not?
6. If you do talk with your friends and family about your favourite place in Nature, what do you tell them? If you don't, what would you like to tell them if you could?
7. Is your relationship with Nature spiritual in any way? If you can, say more about that.

Reflections:

The key learnings from the data collected in the introductory iMovies in this stage included:

- It took about an hour and a half for all students to create their iMovies;
- It worked well to answer questions as a whole group and then send students off individually afterward to make their iMovies;
- Knowing the students from the first day of the program was really helpful for building a rapport and relationship with them—all students listened to and respected my instructions;
- Remember to remind students to keep their hands away from the microphone while recording;
- Some students may feel more comfortable, or may be able to produce a better product if they adapt the iMovie assignment (e.g. one student read the questions aloud to another as they recorded);
- Students appear to enjoy working with the iPads, and having some time to work alone;

Preliminary analysis:

After the iMovies were created, I transcribed the data using ExpressScribe software.

Like in the previous stage, I created a single document that included all students' transcripts from this stage of data collection, and read through each question to look for themes. A preliminary discourse analysis on the introductory iMovie data collected in Stage 2 was not conducted, but rather these transcripts were included in the detailed post-structural analysis described in Chapter Four. Key learnings and decisions from the introductory iMovie in stage 2 are shown in Table 2.1 below:

Table 2.1: Key learnings and decisions from Stage 2 introductory iMovie

Determined in introductory Stage 2 iMovie	Decided	Rationale for decision
The students' definitions of Nature ranged from "surroundings," to "outdoors," to "camping," and "trees"		
The most common definition of Nature cited by 9 students included both plants and animals		
Four student definitions included human activity (e.g. camping)		
Most students responded that spending time in Nature made them feel good or happy, and yet, most students also responded that they spend little time in Nature	To ask the students why they feel this phenomena exists	To probe for barriers and supports for relations with Nature
21 students responded that they do not talk about their favourite place in Nature with their friends and family, while 7 students responded that they did	To ask students why this is	To probe for barriers and supports for relations with Nature

14 students responded that they spend either “little” or, “very little” time in Nature, while 4 answered that they spend “some,” and 7 spend “lots”	The responses to these questions suggests that a disconnect exists between at least half the students and Nature (works to ground-truth problem statement).	Little to very little time spent in Nature can make spiritual relations with Nature impossible.
13 students named and described their favourite place in Nature, while 15 explained that they did not have a favourite place		No connection to a favourite place in Nature can be an indication of a lack of spiritual relations.
15 students stated that their relationship with Nature was not spiritual, 10 students stated that it was spiritual, 2 did not know and 1 student did not respond		The majority of students explicitly answered that their relations with Nature are not spiritual, which suggests a disconnect between students and Nature.

Stage 2: Solo time in Provincial Park.

In October, the GreenSchool class spent four days camping in a provincial park. On two of those days, the students were asked to complete fifteen minutes of solo time as part of their regular day. On the first day, the solo time took place in the middle of a bike ride through the park. Students were spread out on a hill that overlooked a small lake. The students were shown boundaries and encouraged to sit away from their peers, but governed themselves in deciding where to spend their time. The majority of students were within ten feet of another person. Students were asked to complete one of the two solo time activities while they sat by themselves (see descriptions below). On the second day, solo time took place following lunch and a short bike ride. On this day, students were scattered around a picnic area and were asked to complete the activity they had not done the day before. Both days were cool and windy.

1. Sound mapping

Give students each a cue card and something to write with. Have them wander silently until they find a spot they are drawn to sit with. Ask them to draw an X in the center of their cue card. Tell the students the card is a map, and that the X shows where they're sitting. When they hear a sound, they should make a mark on the card that aptly describes the sound. The mark's location should indicate as accurately as possible the direction and distance of the sound. The marks should be interpretive, not literal; the players don't have to draw pictures of plants and animals, just a few lines indicating wind, or a musical note indicating a songbird. In other words, they should spend little time drawing and most of the time listening. Ask students to keep their eyes closed while they listen. Explain that cupping their hands behind their ears provides a reflective surface for catching sounds, creating a shape like the sensitive ears of a deer. To hear sounds behind them, they needn't turn their heads, but just cup their hands in front of their ears. Give students the chance to share their experiences in a talking circle at the end. (Adapted from: Cornell, 1998)

- Asks students to draw solely on a sense/way of knowing that is not used frequently in MWC;
- Invites students to feel Nature from a different perspective;
- Students can feel their bodies' reactions to the sounds around them, (e.g. changes in posture/stiffness, feeling rooted etc.) which may provide the potential for connection with Nature.

Materials: cue cards, markers, pens

2. Transformation is in our hands- painting with Nature- Lisa Lipsett

Students paint from the inside-out following the Creative Nature Connection activity outlined in Green Teacher (Lipsett, 2011)

- Painting in this way is likely new to most students, and may offer a way for them to connect with Nature that they haven't been exposed to in the past;
- Working with paint, or with art in general may work as a hook to interest students;
- For me, it had been years since I was last invited to paint without thinking about the product- the same may be the case for these students. It has probably been a long time since they've been allowed to use their fingers to paint too;
- This is a very tactile exercise, which may help to keep students' engaged;
- It involves drawing on a way of knowing that is likely not the norm for the students;
- It can be a comfortable starting place to both solo time (because it gives the students something to do), and to relating to Nature in a new way (because they will all be at least somewhat familiar with painting/art);

Materials: paper, paints, water, cups, cloth/paper towel, pens

Reflections:

I started the solo times in the provincial park with a circle talk where I described the activities students would be doing during their solo time (see above) and the expectations around being quiet and staying in your own space. Students listened actively and respected themselves and each other in this process. Both days, 4-5 students were able to separate themselves from the rest of the group, and went further away to be alone. The others sat within a few meters of each other. I decided to let the students' actions and body language be the indicators of when they had had enough. When students started talking and moving more, I called them back into the

circle where we talked about our experiences. The first day solo time lasted for approximately 15 minutes, and 17 minutes on the second. The activities seemed to engage most students and for some, made it easier to be alone because they had something to do/focus their attention on. When asked if they enjoyed doing the solo activities on the camping trip, more than 80% of students said yes.

Stage 2: iMovie in response to solo time in Provincial Park (n=28).

Process:

GreenSchool students created a second iMovie after they had completed their solo experiences in the provincial park. The camping trip took place on October 15-18, and students spent approximately one hour at the school on October 22nd creating self-video recordings in which they answered questions probing into their solo experiences. All 28 students completed the iMovie recordings the week following the camping trip. The questions asked in this stage of the research were designed to explore the students' reaction to their solo experiences (q. 1-4 & 6), probe at barriers for developing spiritual relations with Nature (q. 5 & 7), and examine students' relations with Nature (q. 7 & 8). The questions were:

1. Tell me about your solo experiences in the provincial park. What did you do? What would you tell your friends about them?
2. Where did your mind go during solo time? Did you think about anything?
3. Do you want to do solo time again? Why or why not?
4. If you do want to do solo time again, do you want to do it the same way or differently? If differently, what would you do differently?

5. Almost everyone answered that being in Nature made them feel good/happy, and yet most people also explained that they don't spend much time with Nature. Why do you think that is?
6. How does solo time in Nature influence the way you understand yourself?
7. Complete the following sentence: My solo time in Nature was like _____, because_____.

(e.g. my solo time in Nature was like reading a new book because it was hard to get into at first, but then I didn't want to stop)
8. Have you ever experienced solo time in Nature before GreenSchool? If yes, describe your experience.

Reflections:

By this stage in the research, the students, instructors and myself were all comfortable with the format of the data collection and the process occurred smoothly.

Preliminary analysis:

As in the previous stages, the iMovie data was transcribed using ExpressScribe and compiled in a single word document for the preliminary analysis. This analysis primarily looked into the answers students provided for question five which worked to identify some barriers to spiritual relations with Nature in order to respond to my second research question. Student responses were read and coded for common themes. What was determined, decided and the rationale for those decisions in the Stage 2 iMovies from a provincial park is included in Table 2.2 below.

Table 2.2: Key learnings and decisions from Stage 2 iMovie

Determined	Decided	Rationale for decision
Themes existed for barriers to spiritual relations with Nature	To explore and name themes	Deepen understanding of student perceptions
Barriers for spiritual relations with Nature included: <ul style="list-style-type: none"> • Nature/city divide, • Technology • Laziness • Other 	Probe further into each theme for deeper understanding of student responses	To identify and name specific discourses that re-inscribe or disrupt the barriers

Stage 2: Unstructured interviews with students (n=10).

Process:

After the iMovies were created, the data were transcribed, read through and coded for common themes that responded to the second research question: In what ways might educators enhance teaching and learning for spiritual relations with Nature? What are some of the barriers that prevent such relations? What are some of the supports that can help students and teachers move beyond these barriers?

From reading the transcripts with this lens, four themes arose from the data that related to this question. Those themes were: Nature/city divide, technology, laziness and other. I intentionally left the “other” term in in order to avoid missing any patterns I had overlooked to this point. As I re-read the data, I coded all of the transcripts with these themes, and ended up adding lack of time as an additional theme. Once these themes were identified, I wanted to use the unstructured interviews with students to garner a deeper understanding of the discourses within the themes. To ensure I spoke with the students who would provide me with that kind of information, I developed a list of criteria for interview participants. The criteria included:

- The student addresses at least one of the identified themes
- The students' are articulate and say interesting things
- Both genders are represented as evenly as possible
- At least two students must address each theme
- Any dramatically outlying opinions will be considered for an interview

Twelve students were chosen following these criteria and the list was given to the GreenSchool instructors to review. Any students who were too far behind on their regular classwork were removed from the list. The students who were interviewed in this stage were: Bubblegum, Haruhi, Bob, Eric, Kimberly, Maddie, Storm, Travis, Eminem, and Willow. The unstructured interviews took place during regular class time on November 5 while students were working in the computer lab. They lasted anywhere from five to ten minutes. Prior to the interview, the researcher highlighted sections of the student's transcript to probe, and in the interview students were asked to say more about what they had originally said, or explain it in different language. The aim of the conversations was to identify dominant discourses with relation to Nature, as taken up by the students.

Reflections:

The interviews with the students felt natural because of our existing relationship. Students appeared to be comfortable in explaining their iMovie responses and seemed to enjoy talking about them. All students who were invited to take part in an interview agreed with the exception of one who was too busy completing other schoolwork.

Preliminary analysis:

The data gathered in the interviews were transcribed and included in the complete post-structural analysis detailed in Chapter Four.

Stage 3: Solo time in urban parks.

Process:

During the week of November 11, the students completed three fifteen-minute solo time experiences in urban parks. Each day the students were given one question to focus on while they spent their time alone. I chose to ask one of my research questions directly to students to hear their perspective on how they would like to develop a connection with Nature in school so as to avoid only imposing my ideas on them. The questions students were asked were:

- How do you personally build a relationship with Nature?
- How can we support and nourish an identity where loving Nature is okay?
- How would you teach connection to Nature to a group of your peers?

Reflections:

Students seemed to struggle to stay alone and focused during solo time in the city, particularly on the first day. It was very difficult for all but two students to separate from their peers. Two students spent much of their solo time on their phones, and most others stayed in groups and talked throughout. Prior to sending the students out for solo time on the second day, I asked students to do a check-in with themselves about how successful they were the day before. We also re-visited solo time expectations which helped to set up their second experience which went much more smoothly. The third day was an improvement on both previous urban solo experiences in that the students separated themselves more easily, stayed quiet and appeared to be focused. One of the challenges of these solo times was that students had nothing to do physically, but were asked simply to spend time alone in thought. The wording of the questions also proved to be challenging, however, the students' iMovie reflections suggest that for the most part, what I was asking was understood.

Stage 3: iMovie reflections (n=28).

Process:

Students completed three urban solo times in local city parks on November 12-14. Back at the school on November 15, students were asked to create an iMovie in response to their experiences. All 28 students completed these iMovies. The questions in this iMovie were designed to help generate an understanding of the students' solo experiences in urban parks (q.1-2), and their responses to major barriers that arose as themes in stage two including the role of the city and social acceptance (q. 4-5). Students were also asked directly how they would promote connection with Nature in youth (q. 3). The questions they were asked were:

1. Describe your experiences in the three solo times this week. What did you do? How did they go? Did you find it hard to do? Why or why not? If you did find it hard, what was hard about it?
2. Did the solo times this week feel different to you than the others we've done this year? If yes, how so?
3. What did you come up with in response to the each of the questions of the day? They were:
 - a) How do you personally build a relationship with Nature?
 - b) How do we as teachers and learners support and nourish an identity where a love for Nature is okay?
 - c) How would you teach connection to Nature?
4. Do you think it's cool to love Nature in GreenSchool? Is that different from in your regular school? Explain.

5. Do you feel a difference in yourself when you're in Nature in the city versus when you're in Nature in a park outside of the city? Explain your answer.

Preliminary Analysis:

The aim of the data collected in this stage of the research was to shed light on more barriers and supports to spiritual relations with Nature, and how we can support a student identity where a love of Nature is okay (research question #3). The iMovie data from this stage were transcribed using ExpressScribe and compiled into a single word document. Table 2.3 contains a summary of the key learnings and decisions made from the iMovies created in Stage 3.

Table 2.3: Key learnings and decisions from Stage 3 iMovies

Determined	Decided	Rationale for decision
Themes existed for how we can support a student identity where a love of Nature is okay (research question #3)	The themes were: <ul style="list-style-type: none"> • How to connect students with Nature • Social acceptance of loving Nature in “regular school” • Social acceptance of loving Nature in GreenSchool • Relationship between student identity and relations with Nature 	The themes identified here were the most common across the student data in this stage
	Themes will guide the process for determining which students to interview in Stage 3	Want to talk to students who adopt the themes named by students in GreenSchool in order to deepen my understanding
	To probe themes in interviews to uncover and name discourses adopted by students	Understand the discourses that students operate within in order to respond to research questions 2 and 3.

Stage 3: Unstructured follow-up interviews (students) (n=10).

Process:

The same process as in stage two was followed to determine which students to interview. The criteria also remained the same. The students who were chosen for interviews in this stage were: Bee, Daniel, Eminem, Farrah, Haruhi, Ichigo, Kayla, Nicole, Taylor, and Tornado. The main themes that arose from the data in this stage were about how to connect students with Nature, the social acceptance of loving Nature in various contexts, and how identity is connected with spending time in Nature. The interviews took place in the morning of November 21, when students were working on other schoolwork at the computer lab.

Preliminary Analysis:

Data from this stage were transcribed and compiled with the data from all other stages and organized by student. For further detail on this analysis, refer to Chapter Four.

CHAPTER 4: ANALYSIS

Comprehensive Data Analysis

After all of the data was collected, I conducted a discourse analysis for each student. In order to do so, as I read through each student's transcripts, I answered the following questions that respond to my research questions:

1. What is Nature to the student?
2. What kinds of subjectivities is the student allowed to adopt?
3. What does the student think supports spiritual relations with Nature?
4. What does the student think prevents spiritual relations with Nature?
5. List the discourses exemplified or described by the student

Themes were identified in student transcripts by the commonality of their use. The discourses¹¹ embedded in those themes were identified by seeking commonality, and by deconstructing the theme to understand the discourse. For example, in Stage two five students explained that people do not go in Nature because they live in the city. This led me to identify the city as a theme, and the dualism between urban Nature and Nature "out there" as a discourse. It is important to note that as much as possible, the themes and discourses arose from the data; however, as a researcher I am working from my own positionality and relate to the data through my epistemological and ontological positions and may be biased towards seeing particular discourses. Using the lists created from the fifth question, I compiled a long list of discourses (158) as named by the students and identified by me. From there, I eliminated duplications and grouped the discourses thematically to arrive at a shorter list of 36 discourses. I noted how often

¹¹ Discourses can be described as the shared cultural narratives that guide and determine what is considered to be conventional, acceptable, or a "normal" mode of being, and subsequently what is unconventional, unacceptable or an abnormal mode of being (Barrett, 2005)

each of the discourses was cited by students in order to identify which discourses were the most influential or common. In the case of this research, identifying discourses in EE helps to illuminate what is possible and impossible for students to enact with regard to their relations with Nature. I was able to identify four themes that encompassed the majority of the 36 discourses in the short list. Those themes are:

1. The role of the city
2. Social acceptance,
3. Connection time, and
4. Technology

The next step was to look more deeply into each theme to identify the discourses that students named explicitly or appeared to be operating within when describing the supports and barriers to spiritual relations with Nature. The themes and the discourses within each theme are described in detail in the following section. A table is included after the outline of the themes to show how often each discourse was mentioned, alluded to, not mentioned, or if students suggested alternative discourses. The purpose of this table is to provide a snapshot of the entire dataset that was collected in this research and eliminate concerns that only data that fits my argument are included.

Theme #1: Nature and the city.

One of the most common themes to arise in the data is the role that the city plays in shaping Nature experiences for students. Approximately 30% of the GreenSchool students mentioned the city as a barrier to developing a connection with Nature in some capacity in the data collected in stage two. In this stage, students were asked to explain why they thought that people chose not to spend much time in Nature although they know it elicits positive emotions

and is good for them¹². The city as a barrier to Nature became a prominent theme in the responses to this question, and as a result, influenced the design of the experiences the students encountered in stage three. In this stage, I decided to run the solo activities in Nature in the city rather than in designated parks outside of the city to try to understand how students made sense of the relationship between Nature, themselves and the city. In addition to making observations of the solo time experiences, I also wanted to hear directly from the students about how they felt in each experience. I asked them to reflect in their stage three iMovies on any differences or similarities they felt between the two “types” of solo time (Nature in the city vs. provincial park). Upon viewing their iMovies and reviewing the data from all stages, it became clear that the students often made reference to the city and its impacts on their relations with Nature when they did one of three things:

1. Attempted to define or describe what Nature is to them. For example, “When I hear the word Nature, I think of the sun shining on your skin, just from the warmth it comes from, and the leaves rattling when you see them. It's a nice sound. It's anything but what you hear from the city” (Taco, IM1).

Discourse: Nature in the city is “less than” Nature outside of the city.

2. Spoke about access to Nature and Nature’s whereabouts. For example, “If you're in the city you don't really get away from the city and actually, like, be in Nature” (Haruhi, INT2).

Discourse: Nature is “out there”

¹² This question was drawn from data in an earlier stage of this research that identified that 14 students spend either “little” or, “very little” time in Nature, 4 students spend “some,” time in Nature, and 7 spend “lots” of time in Nature. The same dataset also showed that 19 students explained that spending time in Nature makes them feel good/happy/relaxed/peaceful.

3. Described societal values and how they relate to them. For example, “I don't spend a lot of time in Nature because, I'm always really busy” (Natiesha, IM1).

Discourse: Our society does not value spending time in Nature.

Each of these three discourses are broken down and explored in depth in the following section, to reveal more about what the discourses are, how they are produced, re-produced and/or disrupted in the GreenSchool program, as well as the implications of adopting such a discourse. Potential alternative discourses that can work to foster spiritual relations with Nature are suggested. It is important to note that the activities that students undertook in the provincial park that emphasized feeling, versus those in the city that emphasized thinking has influenced the discourses identified here. If another round of data collection were possible for this study, I would recommend implementing feeling based activities during urban solo time (like those from Stage 2) and studying any differences or similarities in student responses. For more on this, please refer to the limitations section in Chapter 5. The summary table below provides a snapshot of the city-themed data collected in this project.

Table 3.0: Nature and the city discourses

Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
Nature in the city is “less than” Nature	No	4	12	10	3
Nature is “out there”	No	5	13	8	5
Our society does not value spending time in Nature	No	14	3	11	1

Description of the discourses

Nature in the city is “less than” Nature outside the city

Christie- Did the solo times this week feel different to you than the others we've done this year? If yes, how so?

Willow- I'd say yes because we weren't in Nature, we were just in a park

(Willow, IM3)

A third discourse that emerged in the data with regard to the city is that Nature in the city is “less than,” or takes on a different meaning to students than Nature “out there.” The distinction between the two discourses is subtle, yet important to consider. Nature as “out there” removes humans from Nature, while thinking of Nature in the city as “less than” does not remove humans, but diminishes the quality of Nature. While a few students expressed a belief that there is Nature in the city: “there's still Nature in the city, because there's parks and everything,” (Storm, INT2), the vast majority distinguished between Nature in the city and Nature “out there.” For example, when Bob described his experience with spending time alone in Nature in the city he explained that, “I didn't find it too hard I think because it's still in Nature. Not as much, but it's still in Nature” (Bob, IM3). While he does not adopt the discourse that Nature is “out there,” he does adopt another discourse that says that Nature in the city is different, and less than, Nature “out there.” Tornado expressed a similar view when he explained that, “In the city you're still not fully in Nature” (Tornado, IM3).

The majority of students explained in their iMovies that they feel differently in Nature in a city park than in a provincial park outside of the city. Many of the students described the differences picked up in their senses. Despite the fact that one of the Provincial Park activities focused specifically on sounds and the city activity did not, sound in particular came up

repeatedly. Maddie explained, “It's different hearing the sounds of cars and everything else around you instead of just wind and birds and the ruffles of the leaves, it's different” (Maddie, IM3). Taco echoed these thoughts almost exactly by saying that; “I feel a difference when I'm outside because in the city like there's like cars and everything and outside you hear the birds and the full effect, so yeah” (Taco, IM3). Storm mentioned both sound and size as different in Nature in the city versus Nature outside of the city, “Nature outside of the city is more quiet and there's more space to explore rather than in the city there's only like little tiny places and parks” (Storm, INT2). In each of these examples, the girls compared Nature in the city to what they know as Nature as they experienced it in a provincial parks, and in each example, Nature in the city is seen as lesser than “wild Nature,” upholding the discourse that Nature in the city, is not “real” Nature.

Two students in particular made this discourse quite clear in their final iMovies. Bob and Haruhi both gave Nature in the city the quality of being “artificial” or “fake”, as demonstrated in the excerpts below:

The solo times this week have felt really different from the ones we do in camping trips because it just feels like I know that I'm in the city, but I'm just down the river, but when we're actually in Nature, I just feel like away from everything. And when we're just in the city I feel like, this feels like really artificial.

(Haruhi, IM3)

I feel different, like in the city I feel kinda bored, like, it's not as interesting Nature because everything has been made the way it is for the city already. But, out in a park outside of it, a lot of it is actually natural Nature if that makes sense.

(Bob, IM3)

These two statements suggest that to these students, Nature in the city is not as authentic, or “real,” as Nature outside of the city. This type of discourse suggests that “real” Nature only exists in designated areas outside of urban centers, and sets the groundwork for seeing and treating Nature in the city differently than Nature outside of the city.

It is important to note that not all students described Nature in the city as “less than” Nature outside of the city. One student explained that she felt that there was no difference between Nature inside and outside of the city (Storm, INT1), while another mentioned that the only difference he saw was that there were more distractions in Nature in the city than in Nature outside of the city (Eric, IM3). This student did not imply that one “type” of Nature was superior to the other. A third alternative perspective raised by a student was that it was nearly impossible for him to find a quiet place in the city, which made Nature feel differently there (Markers, IM3). For a summary of the data in relation to the Nature as “less than” discourse, please refer to Table 3.1 below.

Table 3.1: Nature in the city is “less than” Nature outside of the city

Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
Nature in the city is “less than” Nature.	No	4	12	10	3

Nature is “Out There”

“I guess we live in cities now, so, it, it doesn't occur to a lot of people that [Nature] is still here.”

(Willow, IM1)

One of the barriers mentioned most often by students about why they do not spend more time in Nature is that to them, Nature and the city do not go together. In fact, they often speak as

though a dichotomy exists between the city and Nature, making them directly opposed and mutually exclusive. This point came through for many students when they were asked about how much time they spend in Nature. Markers explained quite matter-of-factly that, “I don't spend time in Nature very much because usually I'm in the city” (Markers, IM2). To him, being in the city eliminates the possibility of being in Nature.

Another interesting point of intersection is in how students define Nature, specifically when talking about the relationship between camping and Nature. For two girls, Storm and Willow, camping is synonymous with being in Nature. Storm said:

Before [GreenSchool], I never really spent that much time in Nature, like, I mostly, spend up to fifteen, well, fifteen to twenty days, like, a year in Nature, like just going camping, but now that I got into GreenSchool, I think I'm going to be spending a lot of time in Nature cause we go camping like every month.

(Storm, IM1)

And Willow explained:

Umm, I actually wouldn't know [how much time I spend in Nature], like, I, I've lived in the city my whole life, but like, I, I also did a lot of camping and you know, being around Nature, with family.

(Willow, IM1)

The dichotomy between Nature and the city is further illuminated in the way the girls place camping and the city as directly opposed to one another. Neither of the girls included outdoor experiences from the city in their understanding of the time they spend in Nature. Weeks after creating the first iMovie, Haruhi described her position on Nature and the city very clearly when she created an analogy for the solo time she spent in a Saskatchewan Provincial

Park. She said, “my solo time in Nature is like a fish outside of water, a fish in the prairies because I live in the city and Nature is outside of the city” (Haruhi, IM2).

These students demonstrated that one of the dominant discourses they have adopted is that to be in Nature, they must be “out there,” outside of the city, in a designated area, that is most often far away. This discourse is so embedded at times that one student, Bee, cited gas prices as a reason for why people do not choose to spend time in Nature even though she previously said that it makes her feel good (Bee, IM2). A second student explained that, “nowadays there's little Nature to visit that is easily accessible, so that's why most people can't visit the Nature” (Ichigo, IM2). These suggestions clearly express students’ understanding that in order to get to Nature, a person needs to drive somewhere else.

Some students demonstrated that they adopt an alternative discourse where they do not see Nature as “out there,” but rather include it in their city lives. For example, three students counted activities like reading, spending time in the backyard, and walking down the street as spending time in Nature. Sarkele explained, “I don't really spend that much time [in Nature], just when we're out camping or if I'm walking somewhere or reading outside” (Sarkele, IM1). One student in the class also explained that she feels that Nature is everywhere, showing her disagreement with the discourse named here (Taylor, IM1). Although these alternative discourses were raised in the data, they were by far the minority (see Table 3.2). Eighteen students either named or alluded to the discourse that Nature is “out there,” while only five students suggested alternatives such as these. Below is an example of what I considered to be an allusion to this discourse, where explicit mention of the discourse was not made, but I believed the discourse was apparent in the transcript:

I would describe the time in nature unhealthy because, don't get me wrong, we do do a lot of things outside in GreenSchool, but just to know that there's buildings that are releasing chemicals into the air and everything like that, just in the city, is very unhealthy. But when you're in a lake, or a campsite or something like that with nature surrounding you get a lot of things... I admire everything around me.

(Taco, IM1)

Table 3.2: Nature is “out there”

Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
Nature is “out there”	No	5	13	8	5

There is no time to spend in Nature (Society doesn't value spending time in Nature)

Maddie- I spent every minute of my life outside before like, probably before I turned, like nine or ten-ish, and then I kinda got out of it. Like I didn't spend a lot of time outside, but now I'm really enjoying going back to it.

Christie- Oh, that's interesting. Why do you think you stopped?

Maddie- Well, I've gotten older and being older I've gotten into more like sports and things that makes me really a lot busier. So, I don't have a lot of time to be outside

(Maddie, INT1)

In their September iMovies, almost all of the students responded that spending time in Nature made them feel good or happy, and yet, they also explained that they spend very little time in Nature. As a result, as part of their October iMovies, I asked the students to think about this phenomenon and provide an explanation for why it might exist in this way. One pattern that emerged in the data is that several students feel that their lives are busy and scheduled and that

they have little time left to spend in Nature. Maddie (see above) felt that as she's grown up, sports and other extra-curricular activities have begun to take priority over her time and the time she has to spend in Nature has been reduced as a result. Willow attributed her similar lack of time directly to the urban environment when she said, "we all live in the city and we're not usually around all of that [Nature], so you can barely get time to be outside" (Willow, IM2). Natiesha echoed these statements when she explained that, "I don't spend a lot of time in Nature because, I'm always really busy" (Natiesha, IM1). These students have each described their adoption of a discourse that says that they do not have enough time to spend in Nature because of their busy urban lives.

Like the other students, Kimberly struggles with finding time to spend in Nature while living in the city. When asked to elaborate on why, she named the same discourse (not having time to spend in Nature because of her busy urban life), but unlike her peers, explicitly places the roots of the problem in societal values rather than individual choice. Instead of taking the position that she does not have enough time to spend in Nature because of her schedule, she suggests that the dominant culture, or society and the "real world" as she calls it, does not value spending time in Nature. She believes that urban society values busy, structured schedules with little to no free time, which results in the low valuation of spending time in Nature, as it is neither busy, nor structured. She said that, "I don't spend as much time in Nature anymore just because of society and like the real world?" (Kimberly, INT1). The questioning tone at the end of her sentence reflects her struggle to name the problem exactly, but she suggested that society could be the problem. She explained further, "nobody has time for themselves anymore, it's practically just everything else, they're doing everything else but spending time in Nature." In this explanation she implied that if people had more time to themselves, they might spend more

time in Nature. To probe at what she feels currently gets valued more highly in “the real world” than spending time in Nature, I asked Kimberly to describe what people tend to do instead. She replied, “Everything else in life but Nature, I feel like. Because I know a lot of kids in my class play a lot of sports and like, it's nothing for them to go to their hockey game or their soccer game” (Kimberly, INT1). She suggested that spending time in Nature is not on the radar for most of her peers as something that is important or valuable to do. She went on to explain that she finds herself caught in the same pattern of valuation where she spends time sitting inside doing nothing instead of playing outside even though she knows that going outside is fun and better for her health (Kimberly, INT1). No contradictory opinions were voiced on this topic from other students; however, it is possible that they simply did not think to bring it up. Table 3.3 below shows that 17 students mentioned or alluded to the discourse that society does not value spending time in Nature, 11 students did not mention the discourse and one provided an alternative perspective. The alternative perspective suggested by one student was that her culture values spending time in Nature highly. She is of First Nations background and explains that she spends a lot of time with her family practicing ceremonial events in Nature (Taylor, IM1).

Table 3.3: Our society does not value spending time in Nature

Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
Our society does not value spending time in Nature	No	14	3	11	1

Reproduction of the discourses in GreenSchool

- | | |
|--|----|
| <p>City discourses:</p> <ol style="list-style-type: none"> 1. Nature in the city is “less than” Nature outside of the city 2. Nature is “out there” 3. Society does not value spending time in Nature | 62 |
|--|----|

Language

Language is central to the reproduction of discourse. According to Davies, it is through language and discourse that we, “speak ourselves into existence” (Davies, 2000b, p.55), and create what is possible, conventional and normal, and therefore what is also impossible, non-conventional and abnormal (Kumashiro, 2004; St. Pierre, 2000). Particularly in the case of GreenSchool where students are pre-adolescents and highly aware of their role models (Harter, 2006) the language choice of the instructors has a large impact on the dominant discourses that students are exposed to and the identities which they are comfortable or willing to take up. One way in which these discourses have been reproduced is through instructor language that separates and marginalizes urban Nature. For example, over the course of my volunteer time with the group, I heard both teachers and students refer to visiting local Nature using the word “just.” “Let’s just go down to the river”, or “we can just bike around the block”. While the intention of the teachers may have been to imply that the excursion is not as extensive as others, it may also send the message that spending time in local Nature areas is not as valuable, fun, or important as spending time “out there.” When language suggests that the trips in urban Nature are not as special as those that take place outside of the city, it may be reinforced that Nature is “out there,” and that urban Nature is “less than” Nature outside of the city, which has the potential to make it more difficult for students to love urban Nature.

Pedagogical Content

Although much of the learning in GreenSchool takes place within the city limits, very little time is spent on getting to know urban Nature in any depth (e.g. learning the names of local plants, identifying plants and animals in the schoolyard etc.). I observed that unlike trips outside of the city, those that take place in the urban environment tend to focus on something other than

Nature (e.g. physical activity, community/skill building, arts etc.) The absence of this content is as powerful as the presence of what is taught, and has the potential to emphasize that learning about what exists in local urban Nature is unimportant, therefore re-inscribing the city discourses.

Field Excursions

One of the most apparent ways that the city discourses may be reproduced in GreenSchool is that the longer trips, where students feel immersed in Nature, take place outside of the city. Because the camping trips are longer and take more planning and preparation to execute, they can be seen as privileges for students, and there can be more build up and excitement around them than the urban day trips. On these trips students travel by bus or by car to places that are far away and often unfamiliar to them, which gives the trips and their destinations (most often provincial parks) an exotic feel. For some students, many of who have little experience in Nature outside of the city, these trips provide a sense of “wild” Nature and may work to reinforce Nature as “out there,” which maintains the Nature/city dualism and can re-inscribe urban Nature as, “less than” Nature outside of the city. Like the urban trips, students spend their time at these locations taking part in activities that build physical fitness, community, leadership, science, arts and health. Unlike the urban trips, however, there is often also time dedicated to getting to know the place through Nature walks, solo time, and/or unstructured play. Billing these trips as special, and subsequently focusing on Nature while on the trips may help to re-inscribe the city discourses and undermine the possibility of developing a relational ontology.

Wildlife Interactions

While with the students of GreenSchool, I observed that the quality and content of the attention they gave to wildlife in the city differed from that in the provincial park. The pigeons

that sat and cooed outside the classroom windows were considered to be pests, where the birds and squirrels in the campground were “cute” and “wild.” Additionally, when we walked in the provincial park, students were on the lookout for wildlife as they walked and talked, whereas in the city, this side of them appeared to be “turned off.” Each of these examples illuminates a place where alternative discourses could be suggested rather than re-enforcing Nature as “less than,” through silence or absence of instruction. Suggestions for how to encourage alternative discourses in these cases are provided in Chapter Five.

Disruption of the discourses in GreenSchool

One way that the discourse that Nature is “out there,” is disrupted is that students travel daily throughout the city on foot, bike and/or bus, and are exposed to many different areas in the city including parks and recreation sites that they can revisit on their own. Regular exposure and mindful attention paid to local urban Nature may help to disrupt the city discourses and aid students in building spiritual relations with Nature.

GreenSchool embeds spending time in Nature throughout the program, which disrupts the discourse that MWC does not value spending time in Nature. The inquiry and project based learning approaches enable instructors to meet curricular requirements while students are active and outside.

The instructors of the program make it clear that they value spending time outside and explicitly discuss this with students. I observed the instructors regularly talking with students about how fortunate they all are to be a part of the program spending their days outside, and how the alternative is being “stuck in desks.” This type of communication promotes the understanding that time indoors is less valuable and fun than time outside of the classroom and works to disrupt the discourse that MWC does not value spending time in Nature. Having role

models that display a love and value for Nature may be a first step for creating a learning environment where loving Nature and spiritual relations with Nature are okay, ultimately building toward a relational ontology.

Theme #2: Identity and social acceptance theme.

To respond to my third research question, “How can we as teachers and learners nurture a student identity where a love of Nature is okay,” I asked students to think about how they share their relationships with Nature with the people closest to them. Through this question, I wanted to explore social relationships as a site for supports and barriers to spiritual relations with Nature. In the theme of social acceptance, four discourses arose most frequently and appeared to be significant in shaping student identity:

1 & 2. Students feel a difference in how loving Nature is perceived by their peers in “regular school¹³” versus in GreenSchool. For example, Farrah explained that, “It’s cool because a lot of the [GreenSchool] class likes Nature, and we’re also outside lots, but at my old school nobody really liked Nature” (Farrah, IM3), which shows the difference between how she sees relationships with Nature in the two contexts.

Discourse: It isn’t socially acceptable to love Nature in “regular school”

Discourse: It is socially acceptable to love Nature in GreenSchool

3. Students note a difference in how they are able to enact their subjectivities when they are in Nature versus when they are in the city. For example, “In the city you have more people to worry about and other stuff, where in Nature you’re just free to be” (Bruce, IM3).

¹³ The GreenSchool instructors refer to the standard classroom-teaching format as “regular grade eight,” or “regular school.” The GreenSchool students are given the discourse from day one in the program that they are lucky to be in a program that is more fun, and more hands on than “regular grade eight”

Discourse: I can be myself in Nature

4. When asked directly, 81% of students stated that they do not talk about their favourite place in Nature with the people closest to them. For example, Willow explained that, “I don't really talk about Nature much with friends or family because society is not about Nature anymore, it's more about the city... I just grew up with that“ (Willow, IM1). Not talking with her friends and family about her favourite place in Nature may be an indication that she adopts the discourse that her friends and family do not care about her relationship with Nature.

Discourse: My friends and family do not care about my relationship with Nature

Note: The expression of this discourse is described below on a continuum and may be interpreted in many different ways. This name of this discourse has been kept as a placeholder for ease of understanding.

Table 4.0 outlines the number of times that the three discourses were each mentioned, alluded to, not mentioned or an alternative perspective was offered. Over the course of the data collection, evidence of the student perception that it is *not* socially acceptable to love Nature in regular school appeared 22 times. Evidence of the student perception that it was socially acceptable to love Nature in regular school, however, appeared only twice, and evidence that it was socially neutral to love Nature in regular school appeared twice as well. Evidence of the student perception that it *is* socially acceptable to love Nature in GreenSchool appeared 29 times and only one student mentioned that loving Nature was not cool in GreenSchool, but that it was better than regular school (Kayla, IM3). This data represents a contrast in what is socially acceptable in the two contexts and is therefore a site for further exploration. What is it about regular school that prevents this kind of sentiment from being acceptable for young adolescents? (See Whitehouse, 2001).

The fourth discourse covered here, my friends and family do not care about my relationship with Nature, was either directly mentioned or alluded to by 17 students over the course of the data collection.

Table 4.0: Social acceptance discourses in the data

Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
It is not socially acceptable to love Nature in regular school	Yes	10	12	2	4
It is socially acceptable to love Nature in GreenSchool	Yes	26	3	0	1
I can be myself in Nature	Yes	11	6	9	5
My friends and family do not care about my relationship with Nature	No	2	15	5	9

Description of discourses

It is not socially acceptable to love Nature in “regular” school

There was this environment club in my school and people were just like, “you’re in the environment club? Eeww...” well, not literally like that, but that’s what they thought.

(Haruhi, INT2)

One of the most apparent discourses to arise in the data about social acceptance and Nature is that it is not cool, nor socially acceptable, to love Nature in regular school. As mentioned previously, developing a love for Nature may be the foreground for building spiritual relations with Nature and moving towards a relational ontology. Haruhi’s statement above

shows that she perceived that students are negatively judged by their peers for showing love for Nature in regular school. Nicole contrasted the regular school and GreenSchool environments in her final iMovie:

- *[reads] Do you think it's cool to love Nature in GreenSchool?*

- *Yeah.*

- *[reads] Is it different from your regular school?*

- *Yeah, cause like, we have like an environment where it's okay to, instead of feeling like if you like Nature, you're weird.*

(Nicole, IM3)

The discourse that loving Nature is not socially acceptable in school has a strong impact on who the students are able to be, particularly in grade eight, a critical time for identity development. In all cases in the data, the perceived negative social consequences of loving Nature far outweighed the perceived potential social gains. While six students explicitly mentioned negative treatment by their peers as the consequence of loving Nature in regular school, no students described any positive social impacts of loving Nature in regular school, and only two explained that it was a socially neutral move.

While the most frequently mentioned discourse about regular school and social acceptance was that it is not cool to love Nature in regular school, a range of opinions was expressed on the subject with varying degrees of social consequence. Some students felt that there was no difference between GreenSchool and regular school in terms of how loving Nature is perceived. Bee felt that loving Nature was socially acceptable everywhere. She explained that, “at my old school, everyone loved Nature too” (Bee, INT2). Meanwhile, other students took a more neutral approach describing loving Nature as not harmful to a person’s image, but also

not helpful. For example, Tornado explained that, “I don’t find it much different, I mean, there’s nothing wrong with loving Nature in my other school” (Tornado, IM3), and Bob said, “at my old school it was not really cool, but nothing really special about it, but [you were] not teased, nothing like that” (Bob, IM3). On the other end of the spectrum, six students explained that loving Nature was detrimental to a student’s social status in regular school. One pattern from the extreme end of the spectrum is that loving Nature can result in bullying or isolation from the rest of the class. Eminem explained, “In my old school, people didn’t really like Nature, so if you liked Nature, you really didn’t admit it” (Eminem, IM3), and Daniel described that, “no one wants to be your friend if you like Nature, so you have to keep it inside, it’s horrible” (Daniel, IM3). Similarly, Ichigo stated that, “when people love Nature, everyone tries to pick on them” (Ichigo, IM3). These three examples illustrate the most severe student reactions to going against the dominant discourse (that it is not okay to love Nature in regular school) and may not be representative of the group as a whole. Table 4.1 below provides a summary of the data with regard to the discourse that it is not socially acceptable to love Nature in regular school.

Table 4.1: It is not socially acceptable to love Nature in regular school

Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
It is not socially acceptable to love Nature in regular school	Yes	10	12	2	4

Many students connected the amount of time they spend in Nature as a class to the level of social acceptance they feel about expressing a love of Nature. Sarkele explained that, “it’s a lot cooler to like Nature when you’re a part of GreenSchool because Nature is a big part of it,

and we go camping and do all this stuff outside” (Sarkele, IM3). Comparably, Maddie articulated that, “it’s cool [to love Nature in GreenSchool] and it’s definitely different from my regular school because we actually get to spend time in Nature and realize how cool it is” (Maddie, IM3). Bob explained that he feels that it is cool to love Nature in GreenSchool because, “we’re out in Nature a ton,” while Farrah stressed the importance of having peers with similar interests and common experience, when she said, “a lot of the class likes Nature, and we’re also outside lots. At my old school nobody really liked Nature” (Farrah, IM3). It seems that the shared group experience in Nature gives these students the opportunity to simultaneously recognize ‘how cool’ Nature is, and to collectively adopt a discourse where a love of Nature is okay, because it is common to everyone. Whether there is a cause and effect relationship between recognizing the collective decision of the ‘coolness’ of Nature, and the students’ willingness to adopt a discourse where love of Nature is ok, is up for question. It is not clear if the major factor is spending more time in Nature, the collective love of Nature, or collectively defined “coolness” of being in Nature.

It is socially acceptable to love Nature in GreenSchool

“Everyone likes Nature in GreenSchool.”

(Daniel, INT2)

Every student mentioned that it is socially acceptable to love Nature in GreenSchool, which made it apparent that it is a dominant discourse in the program. Daniel went as far as to say that, “everyone likes Nature in GreenSchool” (Daniel, INT2), and Joseph expressed that loving Nature is “okay” in GreenSchool, “because everybody in our class is doing it” (Joseph, IM3).

As articulated in the description of this discourse (see above), the most common and pervasive reason students gave for adopting the discourse is that they spend a lot of time learning in Nature and sharing common experience. In a time of development where peer opinion is critical, being surrounded by peers who accept this discourse has the potential to open the possibility of a student identity where a love of Nature is okay, which may otherwise have not been possible (For more see Chapter 5). Table 4.2 provides a summary of data with regard to the discourse that it is socially acceptable to love Nature in GreenSchool.

Table 4.2: It is socially acceptable to love Nature in GreenSchool.

Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
It is socially acceptable to love Nature in GreenSchool	Yes	26	3	0	1

I can be myself in Nature

“[Nature is] a place you can be yourself. It's not like the regular world, it's different.”
(Travis, IM1)

A theme that arose in the data, and exemplified by Travis above, is that many students feel that they are free to be themselves when they spend time in Nature, and do not feel the same in the city. Several of Travis’ peers explained that they feel the same way and cite the social rules and pressure they feel to conform in the city as the reason. Like Travis, Taylor and Kayla mentioned feeling free to be who they want to be in Nature, and contrasted this with how they feel in the city. The girls both equated one aspect of freedom with the volume of their voices, which they feel is restricted in the city:

Sometimes in the city, I feel pressured that I have to be not loud and because that's who I am, I'm a loud person and I like to talk so, in like the city you can't always be loud and disrupting people, so you gotta respect them.

(Taylor, INT2)

I have more space to be loud [in Nature]! And not quiet. Because in the city if you're like aaaaagh! [yells] people think you're weird.

(Kayla, IM3)

Social rules and pressure have taught these students what “permissible” behavior is and that this behavior depends on context. The social rules at camp differ from those that they are required to follow in the city. In the examples above, the girls feel that in Nature they are free to be loud and outspoken, whereas in the city they feel that there would be negative social consequences as a result of the same behavior. Thus, when they are camping with GreenSchool they are able to experience a way of being that differs from the one they adopt in the city.

Farrah has similar experiences with this discourse, although she described them in terms of dress rather than voice. She explained that there are different social standards in the city versus at camp when she said,

When you're in the city, you're in the public and you usually dress appropriately and when we're camping our hair is all gross, so when you get back to the city and you have to catch the bus, you're like, arghh, don't look at me!

(Farrah, INT2)

Farrah has been taught to look a certain way in the city, which is at odds with how she allows herself to look while in Nature with her peers. These competing identity performances exemplify two different ways a person is allowed to be while they are a student in GreenSchool.

This discourse does not only apply to girls. An equal number of girls and boys made reference to this discourse either explicitly or by alluding to it. Speaking from the male perspective, Travis (above), and Bruce explained how being in Nature enables them to *be* differently compared with when they are in the city. Bruce said, “in the city you have more people to worry about and other stuff, where in Nature you're just free to be” (Bruce, IM3). The data from the boys is not as specific as from the girls, but they do suggest that the boys also feel pressure to behave in a certain way in the city and have more freedom to be themselves in Nature.

Five students suggested alternative perspectives to this discourse as shown in Table 4.3 below. Three of those students explained that they feel the same in the city as they do in Nature. Sarkele stated that she only feels a difference in herself in Nature or the city if she has been to a place before because she connects it with memories. She does not otherwise describe a difference in herself based on her location. Similarly, Daniel explained that he is, “the exact same” in the city as in Nature (Daniel, INT2). The other two students with alternative perspectives gave ambiguous responses to how they felt in the city versus in Nature. They each explained that they feel the same in both settings, but are able to relax more in Nature. This explanation could be interpreted to mean that they are able to be different in Nature versus in Nature in the city, but the data is not clear enough to make that assumption.

Table 4.3: I can be myself in Nature

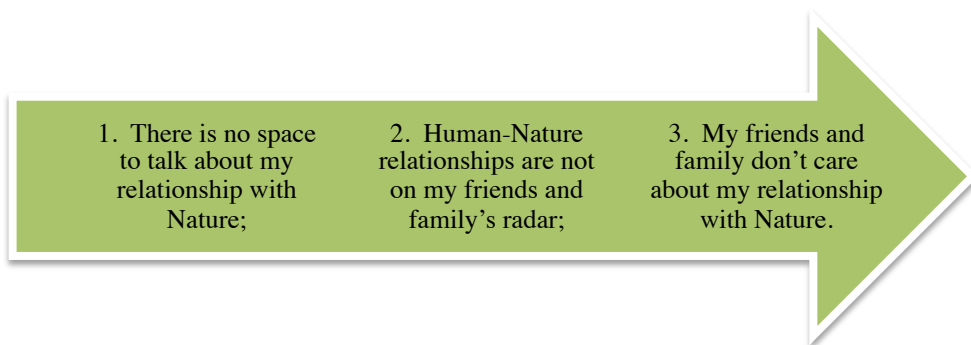
Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
I can be myself in Nature	Yes	11	6	9	5

My friends and family do not care about my relationship with Nature

“If I ever told my friends or family about my favourite place in Nature, I just don’t think they would care.”

Haruhi, IM1

There is data to support a fourth identity/social acceptance discourse, the interpretation of which I have mapped out on a continuum to represent how it was expressed by students of GreenSchool. This discourse may be interpreted as any of:



One of the questions students were asked to think about in their first iMovie was whether or not they talk about their favourite place in Nature with their friends and family. The purpose of this question was to investigate if students felt comfortable discussing their relationship with Nature with the people closest to them, using their favourite place as an entry point. The thinking behind this question was that it would provide students with an opportunity to make visible their love or connectivity with Nature in addition to their willingness to share about it.

The discourses behind the students’ words are more difficult to interpret than the previous three social acceptance themed discourses mentioned, and have been interpreted in one of three ways along a continuum here. To the far right, two students’ responses made it clear that they feel that their friends and family members do not care about their relationship with Nature by stating this explicitly. Haruhi expressed her position in the statement quoted above,

and Eminem echoed it when he explained that he doesn't talk to his friends about his favourite place in Nature because, "my friends really don't care" (Eminem, IM1). Six students, however, described that they do not bring the subject of their relationship with Nature up in conversation and it does not come up, but that they would not actively avoid talking about it if it did which suggests that human-Nature relationships are not on the radar of these students' friends and families. For example, Sarkele stated that, "I don't really talk about my favourite place with my family and I'd like to, but we don't really talk about a lot of things like that" (Sarkele, IM1). There are many possible interpretations of this statement. Sarkele's family may consider the subject sacred and inappropriate to talk about, or her family may generally stick to more functional conversation. It is also possible, however, that she does not feel that there is the space in her relationship with her family for this kind of conversation, or that she is not comfortable enough with her relationship with Nature to talk about it. Other students explained similar feelings about sharing their favourite places in Nature with their families. For example, Jenny said that she, "just never thinks of doing it" (Jenny, IM1), and Travis explained that, "it really doesn't come up. [My friends and family] just don't really talk about it I guess" (Travis, IM1). Although the majority of students do not directly articulate the discourse, one interpretation of their words is that their perception is that their friends and family do not care about their relationship with Nature. There is evidence provided here that they might operate within this discourse because they do not talk about their relationship with Nature with the people closest to them.

Four students expressed that they talk about their favourite place in Nature with their family, but not their friends which suggests that there are some relationships where there is no space to talk about his relationship with Nature. Tornado explained that he does not talk to his

friends about the time he spends in Nature because he feels like they do not share the same interests. He stated that, “it’d be cool if I had more hunter kinda friends or outdoorsy friends so that way I could talk to them about it... but I don’t really get that chance” (Tornado, IM1). For him, talking about his relationship with Nature is safest when it is with someone else who has shared similar experiences. Like Tornado, Storm explained that, “I never really talk to my friends about [my favourite place in Nature] because I never really get a chance to and we mostly talk about girl issues, girl stuff, like shopping and school etc.” (Storm, IM1). Although it is not fully clear in the data, one interpretation of this statement is that Storm does not feel comfortable bringing up the subject of her relationship with Nature with her friends although she might like to talk about it. If that is the case, it is also possible that she has adopted the discourse that her friends do not care about relationships with Nature. In another case, it became clear that one student’s perception was that there is no one in her life with a love of Nature, which for her, acts as a significant barrier to talking about her relationship with Nature with anyone (Nicole, INT2). For these students shared experience in Nature is critical to being able to talk about their relationship with Nature. Without sharing experiences in Nature together they adopt the discourse that their friends and family do not care about their relationship with Nature.

It is also important to note that in the data, four students answered that they talk about their relationship with Nature with their family, but the way they describe talking about their relationship is about logistics or specific events rather than about the qualities of the actual relationship. For example, Eric described how he talked about his favourite place in Nature when he said, “I don’t really have to talk about [what happens at the lake] with my family because they were usually there” (Eric, IM1). Similarly, Billy explained, “I’m with my family

most of the time, so they know what I'm doing. And, no, I really don't tell my friends" (Billy, IM1).

Seven students alluded to the fact that they choose not to talk about their favourite place in Nature with their friends and family. Although it is not fully clear, it is possible that this choice is because they perceive that their friends and family do not care about their relationship with Nature, or that they do not have a favourite place in Nature to talk about. It is also possible that they talk about their relationship with Nature, but not about their favourite place. While many interpretations of this data exist, the implications of students adopting the discourse that their friends and family do not care about their relations with Nature has the potential to be destructive to building a meaningful/spiritual relationship with Nature and thus is explored further here.

One student was open about the fact that she does not adopt this discourse. In her first iMovie, Taylor stated that, "I actually do talk about my favourite place in Nature because I do a lot of my favourite things there, and I like to share them with my family and my friends" (Taylor, IM1). In her iMovies and interview later in the year, she described that she feels that both her family and culture are very supportive of developing a relationship with Nature, which enables her to do the same. While she may not adopt the discourse that her family does not care about her relationship with Nature, perhaps it is because she shares her value and experiences with Nature with her family that enables her to talk about her relationship with Nature with them. Please refer to Table 4.4 for a summary of the data with regard to the discourse that my friends and family do not care about my relationship with Nature.

Table 4.4: My friends and family do not care about my relationship with Nature.

Discourse	Direct Question	Mentioned	Alluded to	Not mentioned	Alternative perspective
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	in iMovie?				
My friends and family do not care about my relationship with Nature	No	2	15	5	9

Reproduction and disruption of discourses in GreenSchool

Social acceptance discourses:

1. It isn't socially acceptable to love Nature in "regular school"
2. It is socially acceptable to love Nature in "GreenSchool"

L
oving
Natur

e in "Regular School"

The discourse that it is not socially acceptable to love Nature in regular school was very evident in students' iMovies in their responses to the questions:

1. Is it cool to love Nature in GreenSchool, and
2. Is that different from your regular school?

Thirteen students explained in their iMovies that they did not have the chance to engage in outdoor experiences with their peers in Nature in their "regular schools." Without the opportunity for youth to spend time in Nature, building a relationship with Nature becomes difficult, and a spiritual relationship becomes impossible. When students in GreenSchool compared their current program to their former school experiences they said things like, "at my old school, we were lucky to get outside for gym" (Bruce, IM3), and "we didn't get to go in Nature at my old school" (Billy, IM3), and "at my old school nobody really liked Nature" (Farrah, IM3). One student also mentioned that there was negative social stigma for belonging to the environment club in "regular school." Evidence appeared in some of the students'

reflections on their experiences in “regular school,” that the discourse that it is not okay to love Nature in regular school is disrupted. Tornado explained that, “me and my friends we'd always go hang out in Nature and... there was community gardens and stuff like that” (Tornado, INT2). Because GreenSchool is unlike “regular school,” it is not possible to explore how this discourse is reproduced there; however, this may be a rich site for further research.

Field Trip Structure and Identity

The discourse that students can *be* differently in Nature than in the city is reproduced regularly on camping trips. This focus on identity is intentional, and embedded in the programming structure as it is aligned with the program’s goals (see program description in Chapter 3). Camping trips in GreenSchool are kept busy, and students are not given time to worry about their appearance prior to starting the day, which may help to re-inscribe the discourse that appearance does not matter. For example, in the mornings on trip students have 15 minutes from the wake up call to have their teeth brushed, have used the washroom and to have started making breakfast, a rhythm which the instructors explained differs drastically from most students’ regular routine at home. The effect of this design is that students focus on what they need to do, and pay less attention to their physical appearance, which can build self-confidence and sense of self.

Despite the responsibilities required of students in the class and on trips, they work in relative security with all of their basic needs taken care of (e.g. food, shelter, love and belonging etc.). This structure may help to reproduce the social acceptance discourses for some students.

Role modeling from the instructors helps to reproduce the social acceptance discourses. In a conversation I had with an instructor, she explained that she felt a difference in herself on camping trips and that she knows that the students are aware of it. She explained that she smiles

and laughs more and is more approachable while on trip than in the classroom. Not only does this difference reproduce the discourse that this instructor feels that she can be herself in Nature, but as she is a person of great influence for the students, it also models how the students themselves can reproduce the discourse that they can be more themselves in Nature too.

Classroom as Campsite

Scholarship in outdoor and environmental education research has shown that Nature-based trips help to build self-confidence, self-assurance and a stronger sense of self in students (Beames, 2005; Campbell, 2010; D'Amato & Krasny, 2011). In addition to giving the GreenSchool students the opportunity to be themselves on camping trips, the instructors work towards creating an environment and attitude that supports students bringing their camp “selves,” back into the classroom through the program’s organization and delivery.

For instance, when in the school setting:

- Students sit on couches in a circle rather than in desks which can act as barriers to learning communities (Raths, 2013)
- Students work in learning teams where collaboration and communication are required in order to be successful in class projects
- Almost all course content is approached through problem and/or inquiry based learning projects
- Students set rules for themselves and are responsible for holding themselves accountable to those rules (the instructors are not seen as the sole authorities in the program)
- The class is treated like a family. All members of the family play an important role and deserve respect from each other. The safety and well being of the family is the most important thing.

- Instructors emphasize the importance of having fun. Learning does not have to mean not having fun.

This approach to learning in the classroom setting is designed to help students feel comfortable, independent and empowered. By creating such “whole” individuals, it may be easier for them to challenge social norms and feel comfortable trying new things, one of which may be to build a spiritual relationship with Nature.

Family and Social Acceptance

Parents and guardians of GreenSchool are invited to share in their children’s experiences throughout the school year, including the graduation night of the program. For this event, students create poster presentations that showcase their growth over the course of the program, and everyone views a slideshow of photos from many events from the year including camping trips and other day-to-day activities. This night attempts to help break down barriers between students and their families and promotes conversations about the students’ experiences in GreenSchool. In doing so, the evening’s events also encourage discussion about the students’ relationship with Nature and reproduce the discourses that it is okay to love Nature in GreenSchool, and that the students can be themselves in Nature while disrupting the discourse that the students’ friends and family do not care about their relationships with Nature. By showcasing the students’ happiness in the outdoors, a connection between students and Nature becomes visible to families and could act as a springboard for further relationship development.

Common Experience

Over the course of their participation in this program, students may start to feel that they are different from their peers who have not shared in their experience. Some students mention that they discuss their relationship with Nature only with friends who also have experiences in

Nature. Not talking about relations with Nature with those who do not share in their experience could signify that the students' friends and family do not care. Through GreenSchool students may be able to build relationships with fellow classmates where this kind of discussion is possible, but it may also work to alienate friendships with those outside of the program. This works to reproduce the social acceptance discourse that it is okay to love Nature in the program, and disrupt the discourse that my friends and family do not care about my relationship with Nature. Being able to discuss their relations with Nature may promote spiritual relations, and may ease the transition to a relational ontology by not having to go against social norms in isolation.

Theme #3: Technology.

For the purposes of this research I am using the word, “technology” to describe the following activities: using cell phones, iPads/tablets, computers, Internet, and television. Although I did not ask a single direct question about technology and its role in developing relationships with Nature, students brought it up in all stages of data collection. Two discourses about technology became apparent in the iMovies and interviews.

1. Students described a dichotomy between Nature and technology, which results in them perceiving that they can either spend time in Nature or use technology; they cannot exist harmoniously together. For example, Travis elucidates this point when he said that, “televisions, games, phones- all that is taking away Nature” (Travis, IM2). This statement makes it clear that to him people either have technology or they have Nature.

The discourse: A dichotomy between Nature and technology exists.

2. The effects of societal discourses on technology and its impact on students' lives becomes evident in the data about how students spend their time and energy. For example, Jenny explained that people, "get stuck on their electronics" (Jenny, IM2) and Joseph said that, "people spend way too much time playing video games" (Joseph, IM2). This use of time may be an example of the result of a societal discourse that suggests that technology is more valuable than developing a relationship with Nature. The discourses: Technology is more valuable than Nature.

Table 5.0 outlines the discourses about technology and displays the number of times they were each mentioned, alluded to, not mentioned and/or an alternative perspective(s) were provided. It is interesting to note that this theme arose solely through the students. None of the questions asked of the students were in any way related to technology and yet they still brought it up, and the number of alternative perspectives to the discourses named is very low. This could be because no direct questions were asked in this regard, but it could also be as a result of widespread agreement about the discourses that currently govern the students' worlds.

Table 5.0: Technology discourses

Theme	Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
Technology	A dichotomy between Nature and technology exists.	No	6	9	13	1
	Technology is more valuable than Nature	No	10	7	13	0

Description of Discourses

A dichotomy between Nature and technology exists.

How do you personally build a relationship with Nature? I was just out there. I was not on my phone, I was paying attention to what was actually around me.

(Willow, IM3)

In reading the data, it became clear that for some students a dichotomy exists between technology and Nature. In the October iMovie I asked students to explain why even though almost all students responded that being in Nature made them feel good in the September iMovie, almost all also responded that they spend very little time in Nature. Nine students cited technology as the main reason that people do not spend time in Nature, which suggests that they perceive that they can either spend time in Nature, or spend time using technology. Kayla exemplifies this when she said, “I like to go on x-box and do stuff like that so I'm barely out in Nature” (Kayla, IM1). Similarly, Farrah explained that, “kids and teenagers don't go outside much because they stay inside on the Internet or watching television” (Farrah, IM2), and Eric described that he thinks people do not go in Nature because, “they'd just rather sit on their phones or computers, on the internet and stuff” (Eric, IM2). Each of these students has adopted a discourse that places a dichotomy between Nature and technology and imposes the idea that people have to either spend time in Nature or use technology.

My interview with Taylor illustrated her perceived dichotomy between Nature and technology. I asked her to tell me about someone that she knows who loves Nature and this was her response:

Taylor- My auntie, she loves Nature because she honors Mother Earth and she believes that the things that people are doing these days are hurting her, and she's not agreeing with what they're doing.

Christie- So how does she act or behave that is different from what those people are doing?

Taylor- Well, she prays for the people that like, you know, so they won't hurt her so bad, that she'll collapse or something

Christie- Do you think you have any of that same sort of love or characteristic?

Taylor- She does teach me those things, so it's not the exact same, like I don't believe in it as much as her, but yeah, I sorta have the same idea in mind

Christie- Why don't you think you believe it as much as she does?

Taylor- Because I know she's more, she's more... like, she's not into the technology and stuff and I am, so we have a difference there

(Taylor, INT2)

Taylor's response can be interpreted in more than one way. It is possible that Taylor sees herself as unable to share the same love of Nature as her auntie because she uses technology. Another possibility is that although she may share the same degree of love of Nature; Taylor expresses her love in a different way. In either case, if the discourse that technology and Nature are directly opposed and cannot be intertwined is taken up, the use of technology has the power to prevent spiritual relations with Nature either by interfering with the personal connection with Nature, or by interfering with the commitment a person has to Nature.

Although the students were not asked a question about technology directly, one student offered an alternative perspective to this discourse. In an interview with Bubblegum, I asked if

she had the choice between spending time outside and spending time on her phone, iPad or Internet, which she would choose most of the time. She responded with, “actually, I’d play on my iPad outside” (Bubblegum, INT1). This is the only case in the data where a student suggests that Nature and technology could be enjoyed alongside each other. Table 5.1 provides a snapshot of the data with regard to the discourse that a dichotomy exists between Nature and technology.

Table 5.1: A dichotomy exists between Nature and technology.

Theme	Discourse	Direct Question in iMovie?	Mentioned	Alluded to	Not mentioned	Alternative perspective
Technology	A dichotomy exists between Nature and technology.	No	6	9	13	1

Technology is more valuable than Nature

We always have so many distractions that we don't really think about having time in Nature. We're always wanting to go do things with our friends- go to the movies, go to the mall, talk to people all the time and be with somebody, and always have our electronics with us.

(Nicole, IM2)

In the data, fifteen students show evidence of their subjectivities being produced by the discourse that society values technology more highly than Nature. This is particularly significant because students were never asked a direct question about how technology influences their relationship with Nature, and yet it became one of the most prominent themes to arise. The individual expression of the societal discourse is clearly illustrated by Nicole (see above),

Eminem and Haruhi. Eminem demonstrated the existence of the discourse by explaining his view that, “kids don’t really want to be outside because there’s television and games inside... what's the point of going outside if you could just stay inside?” When asked if he himself felt this way, his reply was no, but that before he was in GreenSchool he did, because he had a different view of Nature. This response illustrates that his subjectivity once operated within that discourse and it is unclear if, once out of the program, he will revert back to that subjectivity (Eminem, INT1). Similarly, the following excerpt of a discussion between Haruhi and myself exemplifies the discourse that technology is more important to her than Nature at this point in her life. Later in the interview, however, it becomes apparent that she feels she has a love of Nature, which demonstrates conflict in the many discourses she takes up. She feels it is important to develop a relationship with Nature, but does not have the motivation to do so at the moment because of her relationship with technology:

Christie- You’re basically saying that you’d get to know Nature the way you would get to know a person, as a way to build a personal relationship, right? Is that something you could see yourself doing?

Haruhi- If I had the motivation to I guess

Christie- Do you have the motivation to?

Haruhi- Not at the moment, but I probably will

Christie- At some point? Do you know why that is?

Haruhi- Well, because I get really attached to the Internet, and I don't want to leave

(Haruhi, INT1)

Nicole, Eminem and Haruhi, as everyone else, are products of their society and as illustrated through their quotes, have adopted the discourses that for them, technology is more highly valued than Nature.

Oatmeal demonstrates the discourse when he described his reaction to spending time outside with GreenSchool, something he has not done prior to being in the program. He said that being outside, “feels good because I never really get out of the house- I'm always inside watching television and stuff and outside it's all nice” (Oatmeal, IM1). This response, given in the tone of surprise, indicates that Oatmeal was not aware of what he was giving up by spending his time with technology rather than spending it outside. The dominant discourse that MWC values technology more highly than Nature could be being imposed on Oatmeal with or without his knowledge. Willow spoke to this point when she said; “most people are always on [technology] twenty-four-seven. It's kind of like an addiction for some people, [they] are just always on it, and then they don't really get experience being outside” (Willow, INT1). In this statement, Willow very clearly made the point that valuing technology over Nature is problematic because it prevents people from connecting with Nature which ultimately also prevents spiritual relations and a relational ontology.

Interesting to note, no alternative discourses were cited by students about how society values technology and Nature. This may be because no direct question was asked about technology and Nature, but it is also possible that the students agree that technology is more valuable than Nature. Table 5.2 outlines the data with regard to the discourse that MWC values technology more highly than Nature.

Table 5.2: Technology is more valuable than Nature

Theme	Discourse	Direct Question in	Mentioned	Alluded to	Not mentioned	Alternative perspective
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		iMovie?				
Technology	Technology is more valuable than Nature	No	10	7	13	0

Reproduction of discourses in GreenSchool

Technology discourses:

1. A dichotomy between Nature and technology exists.
2. Technology is more valuable than Nature.

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Classroom Setup

The technology discourses may be reproduced subtly in the physical setup of the classroom. In the GreenSchool classroom for example, technology is quite visible: there is a locked case full of iPads, a digital media cart and two-three laptops all prominently visible when you walk in the door. By contrast, no plants or other living beings are present in the classroom.

Technology outside of School

Outside of the physical setup of the classroom, the technology discourses may be expressed more often outside of GreenSchool rather than in the program. The role models at the students' homes have the potential to have great impact on how the students view the importance of Nature and technology. If the students' parents and/or friends show little interest in Nature, it is likely that the students will do the same either through conscious choice, or through not being aware that Nature is present. Likewise, the discourse to have the newest technology regardless of environmental cost is reproduced through social pressures from peers and from the media, to which students are exposed both in and outside of school.

One of the most intriguing answers students gave for not spending time in Nature was that they were busy engaging with technology. While the dichotomy between technology and Nature was not often visibly reproduced in the GreenSchool environment (outside of the social pressure from peers to be aware of and own the newest technology), it affects the students' lives outside of school. Primarily, I understood from students that it is in their personal time that they feel they are faced with either using technology or spending time outside. Students mentioned getting “sucked in” to technology and being lazy as reasons why they do not go outside. How this discourse is reproduced outside of school is a site for further research.

Disruption of discourses in GreenSchool

Combining Nature and Technology

GreenSchool disrupts the technology discourses in that it does not oppose technology and Nature. Much EE literature suggests that an entry point, or one way to engage youth with Nature is to effectively combine technology and Nature rather than positioning them as opposites (Broda, 2011; Burniske, 2001; Dolesh, 2013; Holloway & Mahan, 2012; Peffer et al., 2013). iPads and other technology are often brought along on Nature trips to help students engage with Nature (e.g. Nature photography, creating iMovie trailers etc.), rather than increase the divide between Nature and technology. A simple example of how the instructors model responsible behavior with technology while in Nature is when they use e-readers during silent reading time in Nature. Combining technology and learning, as well as technology and Nature has the potential to enhance learning and disrupt these discourses (Burniske, 2001; Dolesh, 2013; Holloway & Mahan, 2012; Korteweg, 2007).

Instructor Influence

The instructors of GreenSchool have great influence over their students and their role modeling has the potential to affect the behavior of the students they teach. As such, they are very mindful about how and when they use their own personal technology so as to model respectful interaction with it for their students. One teacher explained in an informal discussion that she has conversations with her students about feeling free when she does not use technology, and choosing to unplug for days at a time to fully experience her surroundings. Exposing students to this kind of discourse from a role model that they trust is one way that these technology discourses are disrupted in the program. By exposing students to a balanced means of using technology and spending time in Nature, spiritual relations with Nature may be seen as possible without giving up using technology.

CHAPTER FIVE: DISCUSSION

Often, dominant discourses are maintained because they have become the conventional (which are often upheld by powerful social structures) modes of operating and they re-inscribe existing power relations (Barrett, 2005). An example Gough and Whitehouse provided is what they called our “humanised identity,” and the dominant discourses around what it means to be either human or Nature in environmental education (Gough & Whitehouse, 2003). They posited the question, if we continue to operate within these powerful cultural binaries, how much can we really be changing? When the dominant discourses are acknowledged and understood, it may become possible to take up alternative discourses.

Breaking down and understanding the discourses acting upon and from within ourselves, we have the ability, as Davies (1993) described, to “become producers of culture” rather than simply acting as “passive recipients” (p. 2). Breaking down discourses and examining their interactions helps to bring to light power relations, has the potential to show where dominant discourses originate, and how they get re-inscribed, thereby offering individuals alternative discourses to take up (Weedon, 1997). The following section discusses the implications of adopting the discourses identified in this research, as well as suggesting potential alternatives that may enable building spiritual relations between students and Nature.

Implications of Adopting these Discourses

City discourses.

1. Nature in the city is “less than” Nature outside of the city
2. Nature is “out there”
3. Our society does not value spending time in Nature

Adopting the discourse that Nature is “out there,” may help to reinforce in students that a dualism exists between Nature and the city by generating the perception that humans are removed from Nature. In the dominant view of MWC Nature and the city have been socially constituted as directly opposed to one another, where the city is often contrasted with all that is “natural,” “pristine,” or “wilderness” (Benton-Short & Short, 2013; Stefanovic, 2012). One of the pitfalls of this dualism lies in the potential of students who are immersed in MWC to forget that understandings of Nature are culturally produced. Jorgensen described one example of how the human-Nature dualism was particularly damaging in this way at the time of first contact:

During the period of colonization of the so-called ‘New World,’ these visions [Nature-culture dualism] were used to justify the annexation of “wilderness” or terra nullius by European settlers for their own exploitation and use.

(Jorgensen, 2012, p.5)

Likewise, continuing to carry the Nature-city dualism forward in the present day has the potential to further divide the relationship between humans and Nature. Dixon (2002) argued that:

While we assume that the city is apart from Nature, we ignore how the absence of firsthand, place-based knowledge of urban Nature has shaped a culture in which urban environmental degradation is the norm.

(Dixon, 2002, p.xi)

Reproducing the discourse that the city is apart from Nature through discourses like, “Nature is ‘out there,’” continues to support the hierarchical relationship between humans and

Nature currently upheld by MWC, and opposes a relational and/or spiritual ontology (for more on this, see the section on the human-Nature divide in Chapter 2 and the concluding remarks later in Chapter 6).

If the city discourses named here continue to be taken up and reproduced by students in school, it is possible that the dualism between Nature and the city will grow and that the hierarchical relationship between Nature and humans will persist. When Nature is perceived as “out there,” it becomes difficult to access, and further removed from a student’s daily life. When urban Nature is seen as “less than” Nature outside of the city, it may be perceived that it is not worth spending time in, or valuing in any other way. As such, these discourses work to limit the kinds of experiences students are able to have in Nature. According to Dixon (2002) direct experience with urban Nature can help to encourage a more sustainable way of being in the world than that currently adopted by MWC. Dixon explained,

The beauty of a tree or a flower, a bayou or a lake, a cloud or a snowflake, a butterfly or a bird, once we choose to see it, can evoke an aesthetic response that connects us to Nature. With such a response can come acceptance of the nonhuman world and the moral concern for its welfare that constitutes environmental consciousness.

(Dixon, 2002, p.xv)

Developing environmental consciousness in students through facilitating direct experiences in Nature may be a necessary first step to shift toward spiritual relations with Nature. By contrast, adopting the city discourses named here has the potential to promote the separation of humans and Nature, and may de-value spending time developing these relations.

Should these city discourses continue to be adopted in schools, implications for programming may include “Nature” trips taking place only in faraway locations that are outside

of the city, and little to no time spent focused on getting to know and appreciating local or urban Nature. Each of these potential programming decisions will limit the way in which students are able to relate with Nature and may promote further separation between humans and Nature.

Social acceptance discourses.

- | |
|---|
| <ol style="list-style-type: none">1. It isn't socially acceptable to love Nature in "regular school"2. It is socially acceptable to love Nature in "GreenSchool"3. My friends and family do not care about my relationship with Nature4. I can be myself in Nature (I can't be myself in the city) |
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ourses work to re-inscribe cultural norms and, "can 'trap'" us in conventional meanings and modes of being" (Barrett, 2005, p. 80; Davies, 1993). In the case of the social acceptance discourses identified in this research, currently, in order to build spiritual relations with Nature where developing a love of Nature is the first step, an individual has to go against localized manifestations of the dominant discourses of MWC that dictate that loving Nature is unusual or unacceptable. To compound this problem, the students involved in this research are adolescents, who are at a time in their lives where they have an amplified need for the approval of others (Harter, 2006) making it that much harder for them to go against dominant discourses. If it is socially unacceptable for students to love Nature in school, it may be impossible for some to develop a relationship with Nature, spiritual or otherwise. In order for MWC to shift toward a relational ontology, youth must feel that it is socially acceptable to build and maintain spiritual relations with Nature.

An additional struggle for the youth in this study may be that some students adopt the discourse that their friends and family do not care about their relationships with Nature. As a

result, these students may also perceive that no one close to them has a relationship with Nature, which may give them no impetus to change, and provide no role model to follow for why and how to build this kind of relationship. In the words of Rachel Carson, (1987):

If a child is to keep alive his inborn sense of wonder...he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement and mystery of the world we live in.

(Carson, 1956, p. 45)

Without role models, the onus is on the student to change independently, perhaps making spiritual relations with Nature more difficult to conceive of and ultimately move toward. Not only do teachers have a great deal to offer as influential role models in this regard (Connelly & Clandinin, 1999), but intergenerational EE learning, where children and adults teach each other simultaneously, may also have a key role to play in supporting the development of relations with Nature (Duvall & Zint, 2007; Mayer-Smith, Bartosh, & Peterat, 2007).

Another implication of adopting the discourse that it is not socially acceptable to love Nature in regular school, is that school and Nature may be seen as separate, which can then further the divide between youth and Nature. Cooper (2005) attributed the separation between children and Nature in school to a culture based on fear and risk aversion, increased structure and prescription in teaching and learning, teacher's attitudes to taking students outdoors, increasingly controlled environments, and to the attraction of technology (Cooper, 2005). These barriers must be addressed in order to re-establish a connection between Nature and school, which may support youth in developing spiritual relations with Nature.

A third implication for adopting the social acceptance discourses named here is that students may be restricted from becoming entirely themselves without being given unstructured

time to spend in Nature. Three students in this study mentioned feeling free to be themselves in Nature, a feeling they also mentioned that they did not get in other contexts (e.g. the city). It has been said that youth are currently growing up with more supervision in all contexts and have lost the freedom to relate with Nature in any way they choose (Cooper, 2005). King and Stefanovic (2012) contend that,

Children are losing the opportunity for creative, unstructured play, learning instead that the most appropriate way for them to be in relationship with the natural world is through experiences that prioritize safety, cleanliness and order.

(King & Stefanovic, 2012, p. 335-6)

A part of developing spiritual relations with Nature is in direct experience, curiosity and exploration (Naess, 1989). It is the quest for connectedness (Palmer, 1999). From desisting from sheltering youth, (Cooper, 2005; Louv, 2005) and giving them time to spend in Nature (Cheng & Monroe, 2012; Higgins, 1996), we may encourage deeper relations with Nature through which students can express themselves.

Adopting the social acceptance discourses named here has the potential to limit access of relating with Nature spiritually for some students. Although most environmental and outdoor education programs work to break down barriers between students and Nature, if these programs are the only sites where it is socially acceptable to love Nature, only students who take part in the programs have access to this type of relationship. While it is positive that there are places/programs where it is socially acceptable to love Nature, it is critical that we work toward increasing the number of these places/programs where it is appropriate to talk about one's relationship with Nature and work to create similar environments for students in regular schools.

Technology discourses.

1. A dichotomy between Nature and technology exists.
2. Technology is more valuable than Nature.

Perhaps one of the greatest implications of adopting the technology discourses brought to light in this research could be that students may view technology and Nature as competing, incompatible or mutually exclusive, and therefore default to valuing technology over Nature. The discussion of the crossroads of technology and Nature is not new (Carter, 1998). The dichotomy between technology and Nature has the potential to result in youth spending even less time in Nature and further widening the divide between humans and Nature and preventing a shift in MWC toward a relational ontology. It has been argued that there is concern for taking away connection time/space from environmental education experiences by introducing technology (Peffer, Bodzin, & Smith, 2013). There are many examples of environmental education programs, however, which work to disrupt the discourse that a dichotomy between Nature and technology exists by integrating technology and relating with Nature (for examples, see Broda, 2011; Burniske, 2001; Dolesh, 2013; Holloway & Mahan, 2012).

These discourses may be expressed at both the individual and societal levels. The interaction between the two expressions of the discourse is subtle, but important. On the individual level, a person makes a conscious decision with regard to values and actions. The impact of the societal level discourse, however, is that the individual may or may not be aware that a decision is being made. For example, if society values technology more highly than spending time in Nature, and this message is delivered to the individual regularly at both the conscious and sub-conscious levels through media and by other means, the individual may not be fully aware of how their values and actions come to be.

If the discourse that MWC values technology more highly than Nature continues to be reproduced in schools, it may be the case that more students end up with more experience using technology compared with being in Nature, increasing the divide between youth and Nature (Burniske, 2001). Currently, North Americans between the ages of 8-18 spend on average 7.5 hours per day on screens (Wethington, Pan, & Sherry, 2013), and fewer than 40% of 13-18 year old Americans visit a natural area outdoors at least one per week (*Connecting America's Youth to Nature*, 2011). This imbalance of time spent between technology and Nature can work to make spiritual relations with Nature impossible.

It was also interesting to note that when the study participants referred to technology as a barrier to connecting with Nature, they often explained it outside of themselves. For example, one student responded that, "people get stuck on electronics" (Jenny, IM2), rather than "I get stuck on electronics." The implications of this trend may be worth exploring in future research.

How can we take up alternative discourses?

City discourses.

One of the most important aspects of disrupting damaging discourses about Nature in the city may be to pay attention to the language we use when we describe urban Nature, and to ensure that it does not work to devalue or marginalize it. One simple example is to avoid using the word "just," when describing local Nature. This is particularly important for role models, like teachers, who have significant influence on their students (Connelly & Clandinin, 1999). Instructors may be able to encourage a discourse where humans are seen as a part of Nature by using language that embeds humanity in Nature and avoids marginalizing local urban Nature. This simple change in language supports ecological spirituality and a relational ontology such as animism, where other-than-human persons have life and value.

It may be also possible to give equal significance to urban Nature through the inclusion of Nature-based activities in urban parks as is already done in the programming that takes place in parks outside of the city. Giving students unstructured time in urban parks, or activities whose sole focus is to engage students in learning about the Nature within the city may help to encourage the take up of alternative discourses (for examples see Warkentin, 2011; Barrett, Thomson & Patterson; in press). Spending time teaching and learning in, with and about local urban Nature may be the most effective way to encourage the take up of discourses that do not reproduce Nature as “out there,” or “less than,” and develop connectivity to Nature, while building toward spiritual relations with Nature.

Connecting students with urban Nature in a fun, engaging and relevant way may impress upon them that urban Nature has value. As the instructors have done in GreenSchool, another suggestion for encouraging alternative discourses is for educators to find ways to cover curricular learning outcomes by doing things in Nature. Inquiry or project based learning are two ways that this goal may be achieved. It is important to balance the amount of structured and unstructured time students spend in Nature. Although directed outdoor activity can promote health and well-being, unstructured time in Nature is also critical for health, and for building spiritual relations.

Social acceptance discourses.

One way to interpret the data collected here is that students find it easier to love Nature when they see that their peers also love Nature. Therefore, to encourage alternative discourses where it is socially acceptable to love Nature in “regular school,” teachers could ensure that their class engages in common shared experiences in Nature as a whole group. Inviting students to take part in Nature based-projects, enjoying plants and/or animals in the classroom, and creating

an atmosphere where spending time in Nature is fun, desirable and a priority may work toward creating alternative discourses that promote spiritual relations with Nature.

The discourse that it is socially acceptable to love Nature may be the most desirable and productive discourse for nurturing spiritual relations with Nature (see section on Spirit and Love in Chapter 1). Some pedagogical tools that could be used to encourage this discourse include:

- Creating an environment that promotes time in Nature as respectful and fun
- Role modeling positive relations with Nature from instructors to build comfort and confidence
- Role modeling positive relationship between instructors and students which can create a safe environment for self expression (including love of Nature)
- Encouraging students to be mindful of their use of technology during time in Nature and promote relating with one another during this time. Building community and relationship with other people may promote self-acceptance and confidence building in individuals
- Spending time building relationships (instructor-student, student-student, student-Nature)

With regard to student identity, perhaps the ideal classroom is one where space is created for students to be as they are in Nature where they feel free to fully express themselves without fear, as in the case of GreenSchool. Pedagogical suggestions to achieve this goal may include:

- Introducing students to feeling “free” in Nature by incorporating trips into classroom instruction, day trips outside, an hour outside on school property, or longer camping trips all work to break down barriers put up by the walls of the classroom
- Implementing 10 minute field trips (Russell, 1998)
- Trying activities found in *Sharing Nature with Children* (Cornell, 1998)
- Taking part in David Suzuki’s 30x30 Nature challenge (Suzuki Foundation, 2014)

- Facilitating solo time or low/no-stimulus time in school

Alternative discourses where individuals feel that their friends and family care about their relationships with Nature may be encouraged by including more days of programming that involve activities in Nature where families are invited to take part. Promoting shared Nature experience and intergenerational learning opportunities may help to facilitate conversation between the students and their families about their relationships with Nature (Mayer-Smith et al., 2007; Zimmerman & McClain, 2014). A second idea could be to incorporate learning projects in and about Nature that involve an element of teaching or working with peers in other schools.

Technology discourses.

One way that GreenSchool has encouraged an alternative discourse is by integrating technology use into outdoor programming. Some examples of how to effectively combine Nature and technology include: using e-readers to read outside, using iPads to create Nature-based movies or to interpret Nature (e.g. star finder and plant identification guides), and using cell phone cameras to do Nature photography. It is important to note that integrating technology into Nature experiences may work to disrupt this discourse, but should not be the only way that students interact with Nature. In order to develop meaningful or spiritual relations with Nature, students may require a balance of technology enhanced and technology free time with Nature.

Perhaps the most effective suggestion for encouraging the take up of alternative discourses is to ensure that students have more time outside and unplugged from technology. Given the amount of screen time that youth currently receive (roughly 7.5 hours per day for North American 8-18 year olds in 2010), it is vital to balance time off of electronics more carefully (Wethington et al., 2013).

Haraway (2004) explored the intersection of people and technology in education with her work on cyborgs, defined as an enhanced version of a person who is a hybrid of man and machine. This conception has the potential to help us reimagine the dichotomy, as we recognize that humans, nature and technology are already interlinked. As MWC moves forward integrating more technology into the bodies, and daily lives of individuals, this metaphor may become valuable for making sense of the rapidly developing relationship between people, nature and technology.

Recommendations

Connection time.

For me personally, one of the most helpful ways I have found to feel healthy, reduce stress and to clear my mind is to build my relationship with Nature through spending time connecting with it. As such, I was curious about how the students felt they built their relationships with Nature, and how they would teach other students to do the same. I also wanted to explore what students named as the most significant supports to building relationships with Nature. Rather than interpreting their responses to indirect questions, I sought advice from the students on how to disrupt the human-Nature dualism by asking them directly. The questions I asked were at a level I thought the students would understand, and I wanted to reduce my biased interpretation of their words as much as possible. Three responses to how we can facilitate connections with Nature came up most frequently:

Students explained that, in order to develop a relationship with Nature you have to,

1. Invest time in being in Nature. Maddie explained how she builds a relationship with Nature when she said, “I [build a relationship] by spending lots of time with Nature”

(Maddie, IM3). Sixteen of Maddie’s peers suggested the same solution to connecting kids and Nature.

2. *Do things in Nature.* 18 students either mentioned or alluded to the need to be actively doing something in Nature to build a relationship. For example, Markers suggested that he would help foster a connection to Nature by, “taking [students] on a camping trip and showing them about a lot of plants and taking them on a hike” (Markers, IM3). For him, being active in Nature is as important as just spending time in Nature.
3. *Learn about Nature.* Although this suggestion did not appear as frequently as the other two mentioned above, 8 students said that learning about Nature was key to becoming connected with it. For example, Nicole explained that to develop a relationship with Nature you could, “spend time outside and teach about Nature more often and, make it fun for people” (Nicole, IM3).

As I read the data, it became clear that the three most common answers from students with regard to how to build a relationship with Nature were to spend time in Nature, to be active in Nature, and to a lesser extent learning *about* Nature. While spending time in Nature implies being surrounded by Nature, *doing* things in Nature emphasizes the human action much more heavily. Examples of activities that were suggested in the latter category included things like hiking, biking, and hunting. The majority of students recommended at least one of these three solutions for connecting with Nature. A detailed description of each follows.

Spending time with Nature builds connection/relationship

I built a relationship with Nature because we were there most of the week, and I was just sitting down, listening.

Oatmeal, IM3

Over the course of this project, students were asked to complete fifteen minutes of solo time in a provincial park twice and in an urban park three times on separate occasions (see detailed description in Methods section of Chapter 3). Most students indicated that they had never done structured solo time before in their September iMovie responses, so these activities mainly acted as an introduction to spending time alone in Nature. When I directly asked the students how they would help others build a relationship with Nature in the November iMovie, five students specifically named solo time as one way to do so.

As previously mentioned, the idea that came up most often for how to build relations with Nature was to spend time in Nature. Twenty-one students either named or made reference to this solution in their iMovies. For example, Nicole and Maddie simply said, “spend time in Nature” (Nicole, IM3; Maddie, IM3), Bob described that he builds a relationship with Nature by, “just being in it, observing all the sights and sounds and smells” (Bob, IM3), and Eric explained that for him, “you actually go in Nature, and don’t do something distracting” (Eric, IM3). Many students responded that they do not understand how they build a relationship with Nature, but that spending time in it is the key. Ichigo said, “I just kinda sit in Nature, it kinda built the relationship on it's own” (Ichigo, IM3). Likewise, Willow explained that she built her relationship with Nature by being in it. She said, “I guess I was just out there. I was not on my phone, I was paying attention to what was actually around me” (Willow, IM3). The most prevalent theme to arise in the data about how to build connection with Nature is that students need time to spend in it.

Although spending time with Nature was the most frequent response to how to build connection with Nature, students put three alternative suggestions forward as well. One student believes that in order to build connection, it is vital to have a favourite place in Nature to connect

with. This belief aligns with literature on place-based education that stresses the need for contextual and community based learning for students through situating one's self within, and getting to know a place (Dentzau, 2013; Knapp, 2005). A second student shows that he feels teaching connection to Nature is futile when he said, "I wouldn't teach connections to Nature, you either have it or you don't" (Travis, IM3). The same student goes on to contradict himself later, however, and says that deep down he believes that everyone has the capacity to connect with Nature, but that some people need more guidance than others to do so. The third alternative suggestion came from two students who independently stressed the importance of social acceptance and/or the commitment of family and friends to connecting with Nature. Joseph stated that he can build a relationship with Nature, "because everybody in our class is doing it" (Joseph, IM3) and Taylor described that she built her relationship with Nature because, "I'm in Nature a lot with my family" (Taylor, IM3). Taylor said that she believes that spending time in Nature builds connection, but she also stressed the importance of having the support of her family more than her peers. It is possible that these students look for a commitment to spending time in Nature from their friends and family in addition to, or rather than, social acceptance on its own.

Doing things in Nature builds connection/relationship

[To build relationships] you make memories with people, and you do stuff with people.

So you have to do stuff with Nature... maybe like, have a picnic every now and then or make memories. Do stuff in Nature.

(Bubblegum, IM3)

When asked directly, 21 students responded that spending time in Nature builds relationship, however, 18 also made the distinction that *doing* something in Nature builds

relationship. I incorporated any response that mentioned a specific activity or action in this category including solo time. The reason for including solo time in the “doing something” category is because two of the five times we did solo time as a class, students were given a hands-on activity to do while they spent time alone. Five students named solo time as a way to connect with Nature.

Bee very succinctly suggested that one way to connect students with Nature is that, “we could make a club for Nature and go out and do stuff” (Bee, IM3). Other students provided similar answers in more detail. Some of the activities they suggested for building a relationship with Nature included: gardening, making memories, hiking, camping, doing experiments, using Nature to learn, and climbing trees. For more than eight students, being active in Nature appeared to be the most important aspect of spending time in Nature. One example highlighted by Sarkele is that in GreenSchool, “we go camping because I think that helps build like a connection and a relationship with Nature” (Sarkele, IM3). Tornado also emphasized his appreciation for active learning in Nature as a way to build relationship. He explained that to connect youth to Nature he would, “[do] solo times and stuff like that...and planting community gardens and that kind of stuff. That way [students would be] learning about it and they'd be doing something hands on too” (Tornado, IM3).

Learning about Nature builds connection/relationship

We had a garden [at my old school] and we planted stuff all the time and we went outside and learned about nature, in nature, and I think that helps.

Sarkele, IM3

Eight students named learning *about* Nature as one way they would help teach Nature-connection to others. Bob said that he would, “go on trips to natural places, museums maybe,

that taught you about nature,” (Bob, IM3), and Tornado suggested, “planting community gardens and all that kind of stuff. That way [students are] learning about [Nature] and they're doing something, so that it's hands on too” (Tornado, IM3). Travis explained that he would help students build connection with Nature the way he has been taught in GreenSchool which is, “a bit of both, it's like they teach me about things outside, but we also get to do them” (Travis, INT2). These students each combined the idea of going somewhere to be in Nature with the technical aspects of learning about Nature as a means to build relationship.

A point of curiosity for me is why this response arose in the data. Is it that students have experienced learning *about* Nature in ways that they have found to be enjoyable and effective? Or possibly that learning *about* Nature is the only way that they have been exposed to relating with Nature in school in the past? Many scholars have called on EE to shift the approach to learning *about* Nature to learning *with*, and/or *in* Nature (Ballantyne & Packer, 2009; Blenkinsop & Piersol, 2013; Cooper, 2005; Haluza-delay, 2001; Hinds, 2011). This shift requires an emphasis on feeling and direct experience, which often aligns with place-based education¹⁴, in addition to – not opposed to – focusing on content. Although it is outside the scope of this project, exploring how local student have experienced EE and relating with Nature (e.g. through feeling, thinking, or both, and in what contexts) and at what ontological levels, could be an area for further research (see for example Blenkinsop & Piersol, 2013). Are local students learning in the way that is suggested here? Are they learning about, in, with, and for Nature? If so, how is that goal being met?

¹⁴ According to Knapp (2005), place-based education is, “an instructional approach designed to help students learn about the immediate surroundings by capitalizing on their lived experiences. It is a way to "re-member" participants who feel dismembered from the physical context of their immediate worlds and for them to "remember" earlier positive contacts with nature. Sometimes referred to as community-oriented schooling, ecological education, or bioregional education, place-based education is a response to feeling alienated from nature and human nature.” (p.278)

Encouraging Connection Time with Nature in School

In the introduction to his book, Sharing Nature with Children, John Cornell wrote that, “children very seldom forget a direct experience” (Cornell, 1998, p. 15). His statement is corroborated by scholars in many fields including environmental psychology (see for example, Duerden & Witt, 2010), conservation biology (e.g. Genovart, Tavecchia, Enseñat, & Laiolo, 2013), science education (e.g. Lindemann-Matthies, 2006), and environmental education (e.g. Chawla, 1999). These scholars stressed that direct experience is an effective means to promote connection to Nature and may lead to pro-environmental behavior (Higgins, 1996). The most powerful implications of giving students the chance to connect with Nature by spending time with and being active in it, is that they then may be given the opportunity to develop spiritual relations. If the goal, as I have articulated in this thesis is to move MWC towards a relational and sustainable ontology, spiritual relations developed between Nature and youth may act as a takeoff point for making the transition (Coates, 2004). Among the calls for environmental education moving forward, is this one from scholars Xiaoyan and Lin (2012). They suggested that, “environmental education needs to enable students to feel awe and wonder for Nature, to cultivate wisdom so that they are to be connected in body, mind and spirit with Nature” (Xiaoyan & Lin, 2012, p. 353). Providing students with the time and space to spend connecting with Nature may be the most effective way to respond to this call that comes from both the students in this study and the environmental education literature.

Learning to Identify Discourses

Another recommendation for removing barriers for spiritual relations with Nature may be for students to learn about discourses, practice identifying, and breaking them down as I have done in this research. By recognizing and breaking down discourses students may become better

able to notice when certain discourses are pushing them toward certain subjectivities that prevent or support building particular kinds of relations with Nature (see Barrett, 2011; Davies, 2003 for examples).

CHAPTER SIX: CONCLUSIONS

MWC and a Relational Ontology

I conclude this thesis by revisiting the four characteristics that I argued must be addressed to help MWC move toward sustainability and a relational ontology (see Chapter Two). This study has contributed to our understanding of potential solutions to each, which are outlined here in turn.

Characteristic #1: MWC views humans as separate from and above Nature.

We observe nature. We're not a part of it.

(Travis, INT1)

The dominant discourses that were expressed by students in GreenSchool that embed the view that humans are separate from and above Nature included: Nature is “out there;” Nature in the city is “less than,” Nature outside of the city; Society does not value spending time in Nature; and Technology is more valuable than Nature. The implications of taking up these discourses may result in furthering the divide between humans and Nature and contribute to continued unsustainable human-Nature relationships in MWC. In order to move towards a relational ontology, it is critical that we re-imagine the dominant view that a hierarchical relationship exists between humans and Nature, and instead situate humans as a part of Nature. Perhaps the most effective way to go about working toward this goal is to help youth develop a love of, and for, Nature, thus enabling spiritual relations.

Characteristic #2: MWC marginalizes spiritual relationality with Nature.

“My relationship with Nature is not spiritual in any way, shape, or form”

(Eminem, IM1)

The discourses where this characteristic became evident in my research were primarily those about social acceptance. If students do not feel that it is socially acceptable to have, or talk about a relationship with Nature, spiritual relations may be marginalized as they have been in MWC. By contrast, in a space like GreenSchool, where loving Nature is seen as appropriate, is encouraged, and where students are given time to relate with Nature in a variety of ways, spiritual relations become both possible and more probable. In order to move MWC toward a relational ontology, it is imperative that time and space are created and valued in school to facilitate the connection between students and Nature.

Characteristic #3: MWC privileges mechanistic epistemology.

“Other schools wouldn't notice about [Nature], and they wouldn't pay attention, they'd be like, math, math-- you'd have to learn just regular stuff.”

(Willow, IM3)

When research participants in this project talked about their experiences in “regular” school, they often talked about not having the chance to do, or feel things as they learned, which reflects the higher valuation of mechanistic epistemologies, (e.g. reading, reductionist science, rational thought etc.), over other types of knowing in MWC. The discourses that exemplified this characteristic in my research were primarily those that dealt with student identity in Nature, and the valuation of technology over Nature. Many students noted their feelings as they reflected on their solo time and remarked about the difference they felt in their experience with a lack of influence from technology. The implications of privileging mechanistic epistemologies are that those ways of knowing that rely on feeling may therefore be overlooked, which can undermine and prevent spiritual relations with Nature and thus a relational ontology. It is

important to note that I am not suggesting MWC requires a complete shift away from rationality, but rather, it could benefit from a balance of diverse epistemologies.

Characteristic #4: MWC shapes and limits experiences with the use of English as the dominant language.

“I never talk about my favourite place in nature because I don't really know how to describe it sometimes.”

(Bee, IM1)

The social acceptance discourses named in this research described how students talk about their relationships with Nature and exemplified the limitations of both social relationships and the English language. It appears as though some students do not currently have the tools or language necessary to communicate about their relationship with Nature. In this study, the students communicated in English, and were therefore subject to its shortcomings, although other languages also have their own limitations. The implications of not having appropriate language, or being limited by a language, are that students may thus be unable to develop social relationships that have the common ground of spiritual relations with Nature, which may make these relations more difficult to build. In order to move MWC toward a relational ontology, this issue needs to be addressed, and youth need to be given access to a range of ways of talking about their relations with Nature.

Limitations

Study design.

In Stage 3 of the data collection process, I decided to ask students to complete solo time in urban parks to compare their experiences between Nature in and outside of the city. At this point, students had already taken part in solo time activities in the provincial park and I was

interested in having them try a different approach in the next stage. The Stage 2 solo times focused on connection activities in natural spaces, where those in Stage 3 focused on thinking activities in natural spaces. Upon reflection, this may have been a re-inscription of the discourses that the city is a place to think rather than a place to feel. A suggestion for further research is to explore student experiences to solo time activities in urban natural spaces that focus on connection or feeling.

Analysis.

Understanding that individuals move in and through multiple context-dependent subjectivities greatly influenced my analysis. My research simply provides ‘snapshots’ of each of the students’ subjectivities at single points in time in relation to me in that same point in time. Since subjectivities are pluralistic, complex, and are not fixed at any point, drawing decisive conclusions based on the data I have collected is both unwarranted and undesirable. This forewarning illustrates that subjectivities are not expressed as neat representations of human experience, but are characterized by contradictions, uncertainties and flaws of logic (Davies, 2004).

Suggestions for Further Research

This research has taken the first steps toward identifying supports and barriers to spiritual relations between students and Nature in school. In order to break down these barriers effectively more research is required. Specific areas that I believe necessitate further study include:

- How the discourses named here are reproduced and/or disrupted outside of school
- More completely describing and exploring the discourse that loving nature in “regular” school is socially unacceptable

- The implications of integrating technology into Nature-connection experiences. Does technology interfere with Nature connection?
- The cross-roads of Nature and technology
- Local students' experiences in EE- have they promoted learning *about* Nature, or *with/in* Nature? What are the implications of these experiences?
- Once a student, or researcher, or teacher identifies a constraining discourse, what next? What can they do with that knowledge?
- Comparison of the reflections from students on similar solo experiences in a variety of locations (e.g. urban park, provincial park, wilderness etc.)

Concluding Remarks

It is my hope that through this thesis a strong argument has been made for the need of a relational ontology in MWC. Building a love for, and subsequently spiritual relations with Nature may be the first steps toward healing ourselves and making this shift.

THE PEACE OF WILD THINGS

*When despair for the world grows in me
and I wake in the night at the least sound
in fear of what my life and my children's lives may be,
I go and lie down where the wood drake
rests in his beauty on the water, and the great heron feeds.*

*I come into the peace of wild things
who do not tax their lives with forethought
of grief. I come into the presence of still water.
And I feel above me the day-blind stars
waiting with their light. For a time
I rest in the grace of the world, and am free.*

(W. Berry, 1999)

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