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Seeing Through Their Lens: Exploring Wilderness Ethics through the Eyes
of Students on an 88-day Wilderness Expedition

A DISSERTATION
SUBMITTED TO THE SCHOOL OF EDUCATION
AT THE UNIVERSITY OF EDINBURGH
BY

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IN PARTIAL FUFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE
MSC OUTDOOR EDUCATION

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Januray 2008

ACKNOWLEDGEMENTS

This project would not have been possible without the direct and indirect assistance of many people and places in my life. I am greatly appreciative of all the individuals who helped me on this journey, many of whose names will not be found on this page.

To the members of my immediate family – thank you for believing in me and supporting me from the start of my journey to work for NOLS and study in Scotland. Mom and Dad, so much of the passion that drove this exploration is driven by outdoor experiences you provided for early in my life – thank you for that. Glyn, your encouragement in the final writing stages of this paper helped me to believe in my writing and ideas.

To the faculty at The University of Edinburgh – your openness to me doing research and writing from abroad is huge reason I chose to study in Scotland. Peter Allison and Allison Lugg, my sincerest gratitude to you for your ongoing feedback, communication and ideas.

To all those who have influenced, shared insight and read my work along the way – I am grateful of the time and energy you shared with me on this academic journey.

To Bob Henderson, undergraduate professor, passionate Canadian wilderness traveller and teacher, peer, and role model – you have influenced me in more ways than I can articulate in words. Your classes and approach to teaching in my undergraduate degree inspired me to further pursue teaching in the outdoors, and to challenge myself to engage people towards deeper relationships with wild places. I am forever thankful for that as a direction and passion in my life.

To the students of the spring 2006 semester in the southwest, my greatest gratitude goes to you – for engaging in this journey with me. Your stories, your commitment to our expedition, your honesty and your trust – this dissertation and my life in general is richer having met and learned with each, and all, of you.

Finally, to the wild places that have touched my soul and consistently reminded me of the connectedness in this world – thank you for the air I breath, the ground I sleep on and the depth of thoughts you provoke in my mind. Your energy feeds my soul.

Abstract

This dissertation explores students' perspectives of wilderness ethics throughout an 88-day wilderness expedition with the National Outdoor Leadership School (NOLS). Specifically, the research questions seek to understand what wilderness ethics, in the context of an outlined environmental education objective, means to the fourteen participants, and what experiences, if any, are affecting the development or change in such a wilderness ethic. Within the constructivist research paradigm, a methodological framework is developed that uses learning circle discussions and open ended written questions as the primary sources of data. Through a narrative approach to data analysis themes reveal themselves within the context of this expedition. Learning circle discussions reveal that students' understanding of the term wilderness greatly influences their wilderness ethic. Discussions reveal that most students' understanding of wilderness ethics shifted towards a more holistic view during their NOLS semester. However, most students remain grounded in a dualistic perspective of wilderness and society. The shared knowledge and learning is used to suggest program implications for NOLS.

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CHAPTER ONE

INTRODUCTION

Connected to my role as a learner and an instructor on expeditions with the National Outdoor Leadership School (NOLS), and linked to my passion for understanding the way extended wilderness journeys can affect the ways people perceive themselves in relation to the natural world – this dissertation explores students’ perspectives of an environmental education curriculum objective that exists on all NOLS expeditions.

NOLS is a non-profit educational organization that has its’ roots in extended wilderness expeditions in North America. For over forty years, NOLS has taught outdoor skills, leadership, environmental awareness and natural history on wilderness expeditions around the world. The first of these expeditions was in 1965, and the founders’ goal for the school ‘was to train leaders to serve the growing number of people using the wilderness.’ (Gookin, 2003, p. 1)

Presently, all of the schools adult (18 & over) courses are linked to undergraduate university credit courses offered through the university of Utah. Specifically, the curriculum objective this dissertation explores, through the lens of the students is,

By the end of the course we expect each student to make plans for the transference of wilderness ethics and practices into daily personal and professional life. (IN PRT 3040 – NRL, appendix A, p. 1)

The enquiry focuses on asking students participating on an 88-day NOLS wilderness semester how they interpret the term ‘wilderness ethic’ at different points throughout the semester. Furthermore, it seeks to understand how the participants’ ideas regarding the term evolve throughout their wilderness experience and what aspects of the course, if any, are contributing to the development of their wilderness ethic. This research dissertation is a celebration of ideas, where the researcher and participants learned and explored together the notion of wilderness ethics in our lives. More information regarding the 88-day NOLS semester this dissertation explores can be found in appendix E.

THEORETICAL FRAMEWORK & BACKGROUND FOR THE STUDY

This investigation draws on the call for more research in outdoor education that extends beyond the perspective of practitioner or researcher (Barrett & Greenaway, 1995, p. 54) towards the students’ perspectives, and heeds to Martin’s (2004) call that ‘outdoor education which seeks to promote a positive relationship with nature needs to carefully monitor student learning.’ (p. 26) Explored through a constructivist research methodology, the research begins at a point where ‘the nature of experience is seen as emergent rather than predictable.’ (Patterson et al., 1998, p. 426) A learning circle method and written questionnaires are used to explore students’ perceptions of their ‘wilderness ethic’ throughout the entire semester.

Recent doctoral research at NOLS (Lindley, 2005), exploring students’ attitudes towards wilderness, comments on the difficulty of researching a phenomenon, which you cannot see. She suggests the potential benefits of how a ‘research project that involves

observing courses in the field would provide a window into what is happening on courses in the field and might help quantify what makes a successful course that sends students home to be advocates for wilderness' (p. 86). Heeding to this suggestion, as the researcher, I join students for the 88-day wilderness experience as an instructor. For clarification of terminology at NOLS, an instructor that works all the sections of a semester is deemed the semesters' proctor. Furthermore, this is a type of action research, sometimes referred to as practitioner research, meaning that as the researcher I am inside the situation, seeking to develop a deeper understanding of my role as an outdoor educator. (McNiff, Lomax & Whitehead, 2003).

RESEARCH QUESTIONS

In seeking to understand students' perspectives and ideas towards the environmental education curriculum objective, previously noted, this enquiry is driven by the following questions.

1. How do participants make sense of the term 'wilderness ethic'?
2. What types of experiences (physical, mental and spiritual) are contributing to participants' interpretation of the term 'wilderness ethic'?

These questions evolved to better understand students' experience of the curriculum objective throughout their entire semester.

CHAPTER TWO

LITERATURE REVIEW

This section will begin by setting the stage for this research project through a look at NOLS, the participants, the curriculum and characteristics of the NOLS semester course. Moving on, I will explore some notions surrounding expedition experiences *per se*, in order to clarify our understanding of what expedition experiences involve. Specifically I will draw on previous expedition and environmental education research to explore the background to the questions driving this research enquiry. Furthermore, a gap in the literature regarding student perspectives and interpretations of curriculum objectives on wilderness expeditions becomes clear.

In conclusion I will delve into literature regarding wilderness ethics, specifically from an educational perspective. Recent research on sense of place and human nature relationships will be reviewed in an effort to understand ways that outdoor educators are seeking to promote the development of an interdependent land ethic with participants.

The National Outdoor Leadership School

This section will set the scene for the research by outlining the NOLS organisational background, the student body that participates in a NOLS semester course and the undergraduate university course educational objectives, set out by the University of Utah.

NOLS is a non-profit educational organization that has its' roots in extended wilderness expeditions in North America. Since 1965 when the school's first expedition

set out it has expanded greatly. Currently the school has more than 60,000 graduates from around the world, and it offers wilderness education courses in ten countries.

Presently, all of the schools adult (18 & over) courses are linked to undergraduate university credit courses offered through the university of Utah. The curriculum lists the following course names and codes for the four credits participants obtain upon the completion of a full semester with NOLS.

1. Environmental Ethic, Leave No Trace & Leadership Curriculum
(appendix A) Course Code: PRT 3040
2. Risk Assessment & Management & Decision Making
(Appendix B) Course Code: PRT 3043
3. Wilderness Skills Practicum and Leadership Curriculum
(appendix C) Course Code: 3042
4. Natural Resource Learning: Group Leadership Techniques
(Appendix D) Course Code: 3041

For more detail of each course, the university's specific course outlines are included in the appendices of this dissertation. Of specific interest for my exploration, will be the curriculum objectives for the environmental ethics course found in appendix A.

The student body for a NOLS semester is 18 and over, both males and females. Courses travel through a variety of ecosystems using anywhere from three to five different technical outdoor activities, such as rock climbing, mountaineering, canoeing,

caving, hiking, skiing, sea kayaking and sailing. There is no requirement of previous wilderness experience and many participants have never slept in a tent before their course. Regardless of any prior experience, it is correct to say that no participants enter their NOLS semester with a previous semester experience in the wilderness with NOLS.

What is an Expedition?

The term expedition is very general, and can be understood very differently from a variety of perspectives. This section will outline the subjective nature and complexity of the term expedition, and move on to provide a framework for our understanding of expedition experiences in the field of Outdoor education.

Depending on whom you ask an expedition could be a trip to an unknown area of the world, an individual or group challenge of physical endurance, a scientific research exploration or perhaps a nice long walk. Regardless of one's understanding, Allison's (2002) doctoral dissertation described three common themes or foundational criteria that emerge and are present to varying degrees on all expeditions (see figure 1).

Figure 1 - Three foundational criteria of expeditions.

1. Expeditions are journeys.
2. Expeditions have some degree of uncertainty
3. Expeditions have some degree of self sufficiency

(Allison, 2002, p. 52)

The first of the three criteria addresses the journeying component, which exists to some extent on all expeditions. Specifically, a number of characteristics can contribute to the experience of a journey, such as some form of physical exertion or psychological

challenges. As such, regardless of whether you are heading on an overnight canoe trip, an urban cycling adventure or a multiple week arctic exploration, your trip can have characteristics consistent with the journeying themes Allison (2002) described.

The second of the three criteria acknowledges that all expeditions have some form of uncertainty associated with them. Whether it is the destination, decisions along the way, weather, environmental learning or group dynamics or whatever else the case may be, to some extent there are things that occur during the expedition that influence its' outcome. As such, there is some degree of uncertainty prior to and during all expeditions. Having said that, the degree to which subjective uncertainty contributes to Allison's (2002) foundational criteria is not clear from his work, although he does make mention of psychological uncertainty as a valid component of this criterion.

It is also important to note that the uncertainties each individual deals with on an expedition may be very different, even if they are there together (Allison, 2002). For example, one person's fear of heights may provide a psychological uncertainty while another person is dealing with the physical uncertainty of whether or not they are strong enough to climb the mountain.

The last component of Allison's (2002) foundational criteria addresses the need for expeditions to demonstrate 'some degree of self sufficiency.' This refers to the way expeditions 'enable them to use this (themselves) as a source of power to generate activity.' (Carver, 1996, p. 10) This may mean carrying lunch and warm clothes for an afternoon hike or many pounds of food, gear and clothing to provide for months in the wilderness.

To conclude this section, Allison's (2002) foundational criteria of expeditions have been used to clarify our understanding of the term expedition. Having laid the groundwork I will move on to explore previous expedition research.

Previous Expedition Research

In the context of this proposal, it should be noted that this next section is by no means an exhaustive review of all the expedition research literature. At this point, I have aimed to review the previous research that directly relates to my exploration of students' perspectives of wilderness ethic's throughout an 88-day, semester long, NOLS expedition.

To begin, Kaplan and Talbot's (1983) investigation of the *Psychological benefits of a Wilderness Experience*, was a groundbreaking 10-year longitudinal research study that looked for evidence 'that extended wilderness experiences (2-weeks) do offer considerable and lasting benefits for a variety of individuals.' (p. 169)

Specifically, they began referring to the wilderness experience as a 'restorative environment' that results from fascination.

A listing of what people find fascinating would be long and varied. ...But it would also include much of what is found in nature, and especially what sustains nature. Fascination is important to the restorative experience not only because it attracts people and keeps them from getting bored, but because it allows them to function without having to call on their capacity for voluntary or effortful attention. (p. 98)

They move on to suggest a series of components of the wilderness experience that have an increasing impact on participants. The sequence begins with fascination, then coherence, and finally compatibility. These three steps are referred to as ‘primary factors’ in the wilderness experience. For clarity, fascination involves the sensory enjoyment of the environment one experiences. Coherence refers to the connections between information that helps participants to understand their immediate environment (mental, physical and psychological). And, compatibility specifically connects participants to the natural environment and can lead to a contemplative state regarding the natural world that may lead to a spiritual event. Their conclusions address the need for more research regarding the influence of such experiences in the ‘restorative environment,’ but they did identify four notably influential factors of the wilderness experience.

1. Being away from one’s everyday environment
2. Being interested in the activities
3. Learning to function in an alternative environment
4. A strong link between what is necessary to do and what is desirable to do.

When considering the nature of the NOLS wilderness expeditions this dissertation investigates, Kaplan and Talbot (1983) have provided a framework for me to begin understanding some depths of expeditions that take place in the wilderness context. As such, their work is a key stepping stone for my exploration. One major distinction between their work and this enquiry involves the length of the wilderness experience.

Their participants were involved with a 2-week wilderness experience, and the participants I am interested in will be involved in an 88-day wilderness experience.

I went looking for research that explored longer periods of time in the wilderness. I was able to find research and literature (Allison, 2002; Barrett & Raffin, 1989; Beames, Brymer, 2002, Greenway, 1995; Lindley, 2005; Potter, 1998; Stewart, 2003) on wilderness experiences up to 12-weeks in length. Useful as some of these studies are in my enquiry, it should be noted that as far as I searched there is minimal published research on the nature of wilderness experiences of this length. Exploring an 88-day wilderness expedition is unique in the realm of Outdoor education research. Beames (2002) research, explored participants views on what makes an expedition, 'an expedition', through free flowing conversation over a 12-week program with Raleigh International in the United Kingdom. The preliminary results helped the researcher gain insight towards the critical elements of an overseas youth expedition. Despite not being a wilderness expedition, these elements are worth listing below.

1. A once in a lifetime opportunity.
2. Being immersed in a foreign culture
3. Working with a diverse group of participants.
4. Being in a supportive environment.
5. Having equal opportunities to contribute
6. Having opportunities to make decisions
7. A high level of intensity
8. A variety of projects
9. Being challenged.

Similar to the findings of Beames (2002), Expeditionary Learning Outward Bound (ELOB) is an educational program in America. Their main belief is that ‘expeditions draw together personal experience and intellectual growth to promote self-discovery and the construction of knowledge.’ They list ten guiding principles as: self-discovery, having wonderful ideas, responsibility for learning, intimacy and caring, success and failure, collaboration and competition, diversity and inclusivity, the natural world, solitude and reflection, service and compassion (ELOB, 1992).

Continuing with my look at research on extended wilderness experiences, Allison (2002) explored areas of growth on a 6-week wilderness expedition to Greenland through student perspectives. In many ways his constructivist approach to understanding personal growth on expeditions through student perspectives has provided useful insight in response to Barratt and Greenaway’s (1995) critique of outdoor education review.

Specifically, he heeded to their call,

...For new research which focuses on young people themselves. Young people’s accounts of their outdoor adventure experiences and their views about what most influenced their learning and development are almost entirely absent from the literature assessed... (Barratt & Greenaway, 1995: p. 54)

In his conclusions, Allison (2002) discusses four areas of personal growth within expedition participants. They are listed below.

1. The relationship with one's self
2. Relationships with friends, team-members, colleagues
3. Relationships with the natural world
4. Perspectives on education/career

Of particular interest for this dissertation, in the enquiry into student perspectives of their wilderness ethic is the area of personal growth connected to participants' 'relationship with the natural world.' Consistent with Allison's findings, Barrett and Raffin (1989) explored the use of journaling on a 7-week expedition to the Kazan River in Canada's Northwest Territories and one of their conclusions involved 'the shift from people-centred thinking to land-centred thinking.' (p. 36)

Most recently, the doctoral research of Lindley 2005, explored students' perceptions of wilderness before and after a 28-day NOLS wilderness course. Her study was primarily quantitative, using a Q-sort questionnaire to rank students relationship to the idea of wilderness. In addition she used some open-ended questions to support her data. Data analysis showed an increase in students favourable attitudes towards the wilderness following their wilderness experience and the researcher made recommendations for future research to explore in more detail the nature of NOLS experiences, which may be influencing students perceptions of wilderness. The questions driving this research respond to these recommendations.

So, the potential for extended wilderness experiences to encourage relationships with the natural world is supported. But, questions remain regarding what key elements of these wilderness expeditions elicit the growth in relationships with the natural world?

Continuing on from Allison's (2002) and Lindley's (2005) work on student perspectives on a wilderness expedition this dissertation aims to access students' perceptions and ideas regarding learning and growth related to wilderness ethics on an 88-day NOLS wilderness course.

Wilderness Ethics and Education: Leopold's Land Ethic

The land ethic described by Aldo Leopold during his efforts to redirect the conservation movement in the United States in the early part of the 19th century was a response to a lack of 'ethic dealing with man's relationship to land and to animals and plants which grow upon it.' (Leopold, 1949, p. 239) In his work, he defines an ecological ethic 'as a limitation on freedom of action in the struggle for existence.' (p.238) Furthermore, Leopold's discussion of ethics moves on to make clear that his definitions of ethics rest upon the premise that the individual is a member of a community of interdependent parts. (p. 230) In support of Leopold's work, it has been suggested that an emphasis on the understanding of ecological relationships, specifically the acknowledgement of a connection between humans and the environment, can positively influence a person's environmentally sustainable actions (Capra, 1983: Key, 2003: Martin, 2004: Raffin, 1993: Slattery, 2001).

Evidence from a study looking at how students understand the environment suggested that the majority of students displayed 'object' conceptions versus the few who expressed a 'relation' conception of the environment (Loughland, Reid, Walker & Petocz: 2003). Using the data obtained Loughland et al. (2003) explored ways a relational view of the planet may be developed with both primary and secondary students. In both

cases they acknowledged the importance of students who understand the ways environmental and social issues are interrelated, as a significant factor contributing to seeing our 'relation' with the earth. They concluded the study by suggesting that the current environmental curriculum in Australia 'may not be very effective in creating opportunities for young people to integrate ecological values into their thinking.'

(Loughland et al., 2003, p. 14) Although potentially informative, conclusions from this study are lacking depth in areas such as descriptions of the educational experience, teaching methods used and the type of so-called 'knowledge' being portrayed.

Working with university students in Australia, Martin (2004) has explored how outdoor education influences human/nature relationships, through the use of journals and interviews, over the course of a three-year degree programme. Among other things, his work delved into the role that adventure activities play in shaping human relationships with nature.

The most fundamental finding from this research was that the process of outdoor education, as experienced by these participants, helped to shape their relationships with nature towards an increased sense of connectedness to, and caring for, a nature. (Martin, 2004, p. 21)

The responses of students drew a range of factors that helped shape their relationships with the natural world. Significant themes that emerged were emotional responses to nature, knowledge and skills, with specific reference to the use of language

that 'enabled formulating and discussing a relationship with nature and knowledge and skills for comfort and competence in the settings favoured by the programme.' (p. 22)

Building on the work of Loughland et al. (2003), Martin's work is particularly useful in the development of my inquiry. The age of his students is similar to the participants at NOLS and the journeying component is also present in both cases. Obvious differences include the variety in the length of the programs and the proportionally different amount of field time versus class time. Martin's (2004) conclusions discuss how 'relationships with nature lead to changed actions with respect to nature for all participants...they were felt relationships and influenced behaviours directly.'

As such Martin's work supports Leopold's (1949) earlier mentioned discussion of a land ethic. The intention of this dissertation is to explore the evolution of participants' wilderness ethic in order to better understand what aspects of their wilderness experience are affecting it? Do they link a relation-conception of the land, or experiences that promote it with their wilderness ethic?

Past research at NOLS explored changes in responsible environmental behaviour following a month long NOLS course (Freimund & Hammit, 1995). Specifically, this research emphasizes the organizations minimum impact camping technique, and addresses the question of 'how effective these courses are at enhancing an environmental ethic that might be applied in a daily lifestyle' (p. 1) Similar to the study of Loughland et al. (2003), this study is limited in its' description of experiences that influence a shifted ethic towards the land. Their findings indicated changes in environmentally responsible behaviour following their NOLS course, connected to a

metaphoric transference of minimum-impact ideology. They call for more research at NOLS that focuses on the educational experiences participants are having in the field. The research questions that drove this dissertation were aimed to provide some insight to this request.

In concluding this section of the literature review, I would like to review the key points of this section. It appears that notions of an interdependent land ethic, described by Aldo Leopold are linked to the 'relation' conception of the land explored by Loughland et al. (2003), and the human nature relationship that Martin (2004) looked at with University participants. Past research at NOLS connects a minimum impact ideology with a shift in environmentally responsible behaviour among participants. There are clearly gaps between the research on NOLS courses and some of the themes emerging regarding the development of a 'relation' conception of the land as a way to promote the land ethic Leopold speaks of. It is my hope to explore the evolution of wilderness ethics on NOLS in order to narrow this gap. The next section of the literature review will explore the concept of sense of place as one way to increase participants 'relation' conception of the land towards the development of Leopold's interdependent land ethic.

Sense of Place in Environmental Education

The concept of 'sense of place' is thrown around frequently in the field of outdoor education, usually in reference to our connections with a particular place. These connections can be influenced by the place itself and by experiences we have there (Stewart, 2003). Furthermore, within the context of outdoor education, developing a 'sense of place' is seen as one way to "expand the conceptual world of students, to give

them a glimpse of what it means to be merely a member of the biotic community.”

(Stewart, 2003, p. 19)

I think the important thing to remember is that sense of place, any degree of sense of place, is essential in discovering the interconnectedness of life.

(Stewart, 2003, p. 21)

In looking at the aims of ‘sense of place’ as a component of environmental education curriculum, it is important to acknowledge that the subjective nature of the term often makes it difficult to conclude how to best develop ‘sense of place’ relationships (Stewart, 2003). Some thematic similarities exist throughout the literature, and in many ways, the large-scale ‘relation’ conception of the land (Loughland et al, 2001) I explored in the previous section mirrors the development of a ‘sense of place’ relationship, discussed in the work of Stewart (2003). The most obvious distinction between the two is that the ‘sense of place’ relationship usually refers to a connection with a particular place, and the ‘relation’ conception of the land is linked to a perception of how one sees the environment as a whole.

The distinction I noted above planted the seeds for a new garden of insight, with regard to where a ‘sense of place’ might fit into the realm of outdoor education, aiming to provide experiences that will promote the development of an interdependent wilderness ethic. Through this process of understanding, towards student development of a ‘sense of place’ relationship with a specific environment, we start down the road, in the direction, of large-scale perceptual change in relation to the environment as a whole.

It deals principally with their relations to each other, their relation to the soil and water in which they grew, and their relations to the human beings who sing about 'my country' but see little or nothing of its inner workings. This science of relationships is called ecology, but what we call it matters nothing. The question is, does the educated citizen know he is only a cog in an ecological mechanism? (Leopold, 1949, p. 209-210)

Summary

By providing a framework for our understanding of the NOLS expedition experience, the curriculum and the student body, this chapter explores some useful research and literature linking wilderness ethics and human/nature relationships in outdoor education. A gap between research on NOLS expeditions and the themes in the broader outdoor education literature surrounding how we can promote the development of an interdependent land ethic emphasises the niche this inquiry may fill. The work of Kaplan and Talbot (1983) and more recently the work of Allison (2002) and Beames (2002) has been helpful in understanding expeditions and their potential educational benefits.

Prior to Allison's investigation, in support of Barrett & Greenaway's (1995) review of outdoor education literature, he (Allison, 2002) acknowledged that,

The perspectives, which are taken on the phenomena (adventure education in general and expedition experiences in particular), are almost exclusively

from the perspective of practitioner or researcher as opposed to the perspective of the participant in the experience. The majority of studies are concerned with testing a hypothesis of some type, and rarely account for the inevitable individual nature and interpretation of experiential experiences. (p. 87)

The next section of my proposal will begin to describe the steps of this enquiry in order to address the questions guiding this research. It will commence by looking at the environmental curriculum through the participants' lens.

CHAPTER THREE

MY RESEARCH PLAN: SEEING THROUGH THEIR LENS

Methodological Justification

A kaleidoscope...is the child's toy consisting of a tube, a number of lenses and fragments of translucent coloured glass or plastic. When you turn the tube and look down the lens of the kaleidoscope, the shapes and colours, visible at the bottom change. (O'Brien, 1993, p. 10-11)

O'Brien (1993) uses the metaphor of a kaleidoscope to answer the question, what is theory? For me, O'Brien's image provides clarity in my understanding of the need for more research from the perspectives of participants on wilderness expeditions. Each different way one shifts and turns a kaleidoscope results in a new pattern of lenses and an altered view of the world. When linked to my understanding of learning connected to the natural environment on NOLS expeditions, it became evident to me that there are a wide variety of lenses we can choose to explore through. None of the lenses are more or less real than the others, but in support of Barratt and Greenaway's (1995) call for more research from student perspectives my research questions support the need to look through the participants' lens in order to understand how participants perceive environmental education objectives throughout an 88-day wilderness expedition.

In revisiting my questions with the purposes of determining a logical method of enquiry, a qualitative approach emerges that is grounded in the constructivist research paradigm. Qualitative research emphasizes the socially constructed nature of reality, makes use of rich descriptions to add depth to an enquiry, and accepts the close relationship between the researcher and the topic being studied (Denzin & Lincoln, 2003). Qualitative researchers seek to ‘study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them’ (Denzin & Lincoln, 2003, p. 5). As such, the research questions driving this enquiry suit a qualitative research approach. Tensions surrounding qualitative research draw on the subjective nature of the research and I acknowledge that as the researcher, the lens through which I see the world is on some level interwoven into the outcome of this enquiry.

As mentioned above, this research is grounded in the constructivist research paradigm and, as such, it accepts three principal assumptions.

1. Reality is constructed differently by different people – relativist ontology.
2. Personal experience is the sole source of knowledge – a subjectivist epistemology
3. The research occurs in a natural setting, findings are interpreted by the researcher and verified for accuracy with the participants – a naturalistic methodology. (Stake, 1995)

The above assumptions connect with my discussion in the literature review chapter of expedition experiences, specifically through the way expeditions accept and embrace a degree of uncertainty regarding the interpretation of an experience.

Furthermore, as an instructor on NOLS courses researching the depths of my own practice, the research questions lend themselves to an action research inquiry, where ‘action research is a term which refers to the processes of people conducting their real-life enquiries, as they ask, individually and collectively, how do I improve what I am doing for our mutual benefit?’ (Lomax et al., 2003, p. 7)

The next section will discuss the methods as they emerged for this enquiry.

Methods

To review, research questions that drove my enquiry are stated below, and accepting the assumptions of an action researcher in the constructivist paradigm I will begin to outline the ways my dissertation evolved.

1. How do participants make sense of the term ‘wilderness ethic’?
2. What types of experiences (physical, mental and spiritual) are contributing to participants’ interpretation of the term ‘wilderness ethic’?

Project Participants

The NOLS semester in the Southwest is open to all potential NOLS students that are interested in the 3-month NOLS experience. The roster for the semester was finalized in January 2006 with a total of 15 students, 8 males and 7 females. The age range of the

students was 18 to 24. One of the students was a previous NOLS graduate of a one month long summer course. All of the other students were new to NOLS.

The students were informed and invited to participate in the research on the first day of the course and all students were given the opportunity to decline without reason. One student chose not to participate in the research at the start of the semester. He did not give a reason but did ask later in the semester if he could listen in during the learning circle discussions and the group and myself agreed this would be appropriate.

Most of the expedition members were born and raised in the eastern United States. There was one student from eastern Canada and one student from the west coast of the US. All of the students, except one, were enrolled, or had plans to enrol in post-secondary education. The focus of study for each student varied from journalism, business, music, and biology including others.

Gathering Data with Learning Circles

In seeking to find a methodology that made sense for the questions guiding this research, Key's (2003) exploration of his own experiences with the natural world addressed my objectives and provided a logical starting point.

As such, my methods are designed to get information in a way that enables "drawing findings from such complex whole or 'field-like' experiences that can be done through the use of themes, which hint at important structural components without destroying the integrity of the experience as a whole" (Key, 2003, p. 17).

The use of learning circles emerged as an exciting and logical way to expose participants' ideas, thoughts and perspectives. Learning circles have evolved from First

Nations' communities that have used the circle as a way of bringing people of all ages together for the purposes of teaching, listening and learning (Baldwin, 1998). Learning circles draw on the life experiences of all the participants to understand the question at hand and to devise workable solutions (Lovett & Gilmore, 2003). There are notable similarities between a learning circle and a discussion and/or focus group. They are listed as follows.

1. Individuals speak in turn.
2. There is a respected space for every voice to be heard.
3. The learning circle is more reflective and is a slower pace.
4. A learning circle is intended to have action outcomes – which may not be the case with a discussion group.

(Learning Circles Australia, 2005)

There is a process involved in facilitating a learning circle that created clarity with regard to the role they could fulfil in exploring my research questions. In preparation, Baldwin (1998) describes a necessary preparatory step that occurs prior to each circle. It is known as setting intention, where intention is the statement of the circle's purpose, and setting intention involves engaging the group in what the circle is about? *Why am I calling it?* This generally happens the day before the actual learning circle takes place.

The following day the process continues by gathering the learning circle participants into a circle. The circle begins with a reflection, and then an explanation of the process by the facilitator. During the explanation of the learning circle process an object is identified as a talking object and as such one may only speak in the circle when

they are holding it. As well, they cannot speak a second time until everyone has spoken. Every individual in the circle has the right to pass if they so choose. The explanation also outlines the learning circle as a place where all ideas are accepted and valued. There are no right or wrong answers (Rickard & Wolfe, 2003).

The more I familiarized myself with learning circles, the more appropriate they seemed as a way to access participants' ideas regarding my research questions in a semi-structured, inclusive way. As such, starting on day two of the participants' 88-day semester, I introduced the first learning circle with a 'statement of intention' (Baldwin, 1998, p. 87). The following day we formed a circle that was introduced with a reading of the research questions followed by five minutes of quiet reflection in the circle. Following the reflection I asked my first research question to the group. A voice recorder was passed among the participants and each individual had the opportunity to share ideas and perspectives. Following the first round, the voice recorder was circulated again to ascertain any new thoughts that may have emerged as a result of others ideas. Following this round I asked the second of my research questions and the object was passed again. A fourth round ensued, with a chance for participants to again share any new or emerging ideas as a result of others thoughts. I repeated the learning circles at the mid-point and at the end of the semester with the exact same structure. Each learning circle was recorded, with the permission of the participants, so that I could transcribe the data after the semester. NOLS volunteered the use of a digital voice recorder and transcription programme to aid in my data collection.

In conjunction with the recorded learning circles, the use of a questionnaire gave each student a chance to reflect on the research questions in a written format. I decided

on using the questionnaire following a trial run of my research methodology during the autumn of 2005, at which time some students suggested that it would be easier for them to express their full thoughts in writing. The questionnaire consisted of the same two questions that drive this research inquiry and the same questions participants' and myself explored in the learning circles. The questionnaires were used three times during the semester. They were filled out before the learning circle to ensure they contained the exclusive thoughts of an individual student.

The process of writing thoughts down is useful for two purposes. First, it provided a form of 'methodological triangulation' (Mason, 1996, p. 25) that can improve the reliability of the overall enquiry. 'The process of triangulation is a means through which multiple types of data are related to each other to support or contradict the interpretation...of a state of affairs.' (Eisner, 1998, p. 110) That is, the use of questionnaires will aim to acknowledge participants' perspectives towards wilderness ethics in a written format. Secondly, 'a methodological basket of approaches allows both the experiences described in writing and the writing process itself to be legitimate parts of the data' (Key, 2003, p. 16). As such, the questionnaires can also be seen as a tool to promote critical reflection connected to the research questions and reflective observation has been noted as one component of the learning process (Kolb, 1984).

In addition to the data collection methods described above, which served as the primary sources of research data, as a researcher, I kept a reflexive research log throughout the semester. It included details of the NOLS environmental curriculum as it was carried out during the semester, self-reflective writing (i.e. analysis) and narrative or

story writing (i.e. descriptive) that was divided clearly in the log. I also had access to a general course log, as mentioned earlier, kept on all NOLS courses that contains course details such as daily activities, weather, and travel information and general curriculum progression throughout the semester. I did not partake in the writing of the general course log, and as such it was used for verification of the reflexive research log that I kept. I found this to be a useful self-reflective tool that accentuated awareness of potential biases that I may have developed. In particular, one potential bias this tool helped me become aware of is my ability to recall and record aspects of the environmental curriculum that I, personally, feel are important. The general course log increased my ability to remain alert to different aspects of the NOLS environmental curriculum and to work towards using this conscious awareness to add depth to my own research log. All of the documents were used to confirm and triangulate data that we discussed in the learning circles and written on the questionnaires.

My Role as a Proctor and Researcher

As a proctor on a NOLS semester, I was the sole instructor that was with the participants for the entire length of their course. At NOLS this instructor role is termed the proctor. Beginning February 2006 at the schools' branch in Tucson, Arizona - I joined a group of 15 participants for an 88-day wilderness experience. I have included the semester outline and description in Appendix E. The decision to instruct and research a NOLS semester at the southwest branch, versus any other branch, was made by the NOLS staffing office. In the role of proctor I worked with other instructors to plan and carry out the semesters' curriculum. Lindley's (2005) recommendations for future

research, after exploring NOLS students attitudes towards wilderness for her doctoral dissertation, support the need for the researcher to step inside the phenomenon of the wilderness experience with the research participants.

A project created to delve into this phenomenon of experience could help to pinpoint the specific elements that influence student attitudes and then could inform practice as to what practical steps instructors can implement on their courses to encourage students in their attitudes toward protection and preservation of wilderness. (Lindley, 2005, p. 86)

The role of the proctor is an ideal chance to enter the experience with the participants. More so than any other NOLS course I have instructed, I felt grounded as an expedition member, engaged in trusting and growing interpersonal relations, and ultimately being present for the duration of the experience with students. As such, the role of a proctor has the potential to be a unique opportunity to explore participant's learning and a way to access the questions that are guiding this proposal. However, this type of research design must accept that the subjectivity of the researcher in this role will be closely bound to the research findings.

Acknowledging that researcher subjectivity is bound to the research findings, I accept that my presence on the course did in some way affect the course and research outcome. As such, the goal of this enquiry is 'driven by educational values that need to be explored' (Lomax et al., 2003, p.19) and it values 'respect for other people, meaning that those peoples' views and values must be accommodated' (Lomax et al., 2003, p.19). It

was my goal to develop relationships with the participants to help all learn and grow through their wilderness experience. The formation of such a relationship has the potential to add depth to this enquiry (Lomax et al., 2003).

The limitations of this sort of researcher role extend to its ability to transfer and speak for NOLS experiences as a whole. I do not want to aim to generalize the NOLS experience based on the themes emerging from my research. Rather, the design of this enquiry provides a depth of understanding about the ways participants' experiences on one NOLS course influence their wilderness ethics. More discussion of limitations will follow the analysis and conclusions chapter.

Data Analysis.

Data analysis began in the field at the start of the semester. I kept detailed notes of themes that emerged from the learning circle discussions and observations of group and individual interactions and conversations. The dynamic nature of this research challenged me to remain open to possibilities; neutral to the themes I was observing and reflective of my own practice as an educator (Miles & Huberman, 1994).

The majority of the data analysis occurred once the semester was complete. To begin, I transcribed all the learning circle discussions I had recorded and all the written questionnaires the participants had completed. I also organized my observation and self-reflection notes from throughout the semester. Doing this myself was a great exercise in becoming familiar with the data. Once organization was complete, I read and reread pages of data over the period of a few months. During this time I wrote out a list of potential themes. I pondered these themes and reflected on what made them unique or

similar to one another. Eventually I felt like I knew my data inside and out and I decided that I needed to take some more active steps forward. At this point I began coding my data.

Revisiting the list of themes I had come up with during the time I spent 'getting to know my data,' I gave a colour code to each theme and returned to the text to see how the themes that emerged fit the data. I compared and contrasted the different colour blocks, looked at it from different angles for similarities, differences and relationships between the themes that had emerged and I allowed time to let new themes emerge. Throughout this process it remained my goal to stay grounded in what stories and lessons the data held.

Beyond the emerging themes, I took the advice of Denzin and Lincoln (2003) and I began to make more notes of obvious outliers in the data as well as themes that seemed to be missing from the data that I might have expected to find.

In the end I organized blocks of like coloured text. From there I sent the themes, outliers and missing themes to four randomly selected students that participated in the research. I had a peer that had no connection or prior knowledge of my research randomly select these students for me. The goal was to gain some perspective on the emerging ideas from people who were a part of the research. This is sometimes called a member check or verification (Miles & Huberman, 1994, p. 11-12). Ultimately, the participants' insight was used to minimize self-delusion with the data (Miles & Huberman, 1994). This feedback was useful and was reflected upon throughout the remaining analysis.

My analysis is framed by the questions that drove this enquiry and my greatest goal was to maintain the trust of the reader, the participants and myself. By this, I mean how honestly I represented the data I collected in this written dissertation (Guba, 1990). It was important to me not only to represent individual experiences as told by participants, but also the story of our expedition as a whole, living and travelling for 88 days in the desert. The analysis is told through a narrative that explores various aspects of our expedition as they contribute to different evolutions of thought related to wilderness ethics in our lives.

CHAPTER FOUR

DATA: TELLING THE STORY

This study was an opportunity to gain a deeper understanding of how students on a NOLS semester understand the term wilderness ethics. Furthermore, this research is seeking to shed light on those aspects of the NOLS semester experience that may be influencing students' understanding of the term wilderness ethics.

The information shared in this chapter is the result of 14 students sharing their personal perspectives on the research questions during learning circle discussions and written questionnaires. Pseudonyms will be used throughout the chapter. The account will begin with a description of the semester's expedition philosophy and living environment. This framework will set the context for a narrative, where each of the learning circle discussions will be summarized with supporting evidence from written questionnaires. Related personal observations and narrative will be interspersed to contextualize these data. Furthermore summarized data brings to light themes from each of the research questions respectively. This information will set the stage for research analysis and conclusions in the following chapter.

Expedition Philosophy and Living Environment– Setting the stage for Data

During this NOLS semester in the Southwest students' and I learned, lived and shared in five different desert environments and four different outdoor skill areas for 88 consecutive days. In chronological order we began hiking for three weeks in Arizona's KOFA national wildlife refuge, then spent two weeks caving in southern New Mexico,

two weeks paddling the Rio Grande river in canoes along the Texas-Mexico border, followed by three weeks of rock climbing in south-eastern Arizona and two more weeks hiking in the Gila wilderness of western New Mexico. Throughout the course students lived in tents or under tarps, cooked their own food and purified drinking water. Between each section we travelled on a NOLS bus to the different course areas.

Although the skills on each section were different, students helped create a positive learning environment that emphasized physical and emotional safety for all throughout the course. This, positive learning environment, is discussed on all NOLS courses with students and sets the stage for open communication, support and respect amongst all expedition members. It serves as an expedition philosophy created with input from each expedition member. During this semester the positive learning environment was revisited in each section as a framework for good learning, growth and a forum to discuss personal and group challenges.

During a discussion, on the first night of the first hiking section of the course, participants on this semester emphasized a willingness to share ones' self with others, intentional listening, honouring differences, trust, laughter and community as things that were important to their positive learning environment. As such, these contribute to the framework for this expedition's philosophy.

With the positive learning environment in place the group lived, slept, learned and reflected under desert skies for 88-days. Such a lifestyle is not only a way to experience the mental and physical challenges of outdoor living with a small group of people, it can also provide an opportunity to reflect on wild places and our connection to them in this ever changing technological world.

Learning Circle #1

Prior to leaving for our first backpacking section the group spent three nights at the NOLS Tucson branch in Arizona. During this time students learned about wilderness first aid, prepped gear, slept under the desert sky and mentally prepared for three months of outdoor living. For seven of the participants these nights were the first ever spent consecutively sleeping on the ground out-of-doors.

Our first learning circle discussion indicated a wide variety of understandings around the term wilderness ethics. Seven participants indicated that my research project was the first time they had ever pondered the term wilderness ethics. The main consistent theme surfacing from the first research question during this discussion and the first written questionnaires indicated that 12 of 14 participants understood wilderness ethics as something that involves taking care of places that are still ‘wilderness’. For clarity, all participants except one agreed during the discussion that ‘wilderness’ refers to the natural world that is still left in its natural state.

In the written questionnaire Jill comments, ‘I think wilderness ethics is about trying to conserve and preserve the land that is still out there, which has not been taken over and built on and industrialized.’ Sally shares in her written answers that for her ‘wilderness ethics is the way you act with the wilderness.’

During the learning circle it was interesting to see the varying comfort levels discussing this issue. Specifically people with minimal wilderness experience seemed more quiet and reserved to share. Two individuals, Jenny and Matt, approached me on their own to apologize for not sharing more during the learning circle. They both

commented on needing more time to ponder their ideas and said they were excited to share more in the next discussion. Both of their written questionnaires indicated an understanding of wilderness ethics that was grounded in how you treat wild places when you go camping.

At this point in the semester it is understandable that participants were nervous and tentative to share as they were just beginning to get to know each other. This is consistent with Gookin (2003) who states that comfort level's sharing deep opinions on any topic is commonly limited in early group interactions. As the circle progressed people shared more ideas and seemed more willing to share things that went against the norm of the group.

Blake challenged people to think about their definition of wilderness. 'I think that the dualistic perspective of wilderness and civilization is actually one of our major problems right now. Everything, even deep in the heart of a concrete jungle is just a modified wilderness. I think a wilderness ethic has got to transfer into the urban environment.' Kim and Charly responded to Blake's ideas. Kim asked, 'how would that transfer?' Charly commented that 'we're talking about wilderness that hasn't been touched, and that we have the opportunity to preserve and leave the way it is.' There was clearly a divide between Blake's understanding of wilderness ethics and the majority of the group at this early stage in the semester.

Of note, Cade had some interesting perspectives to share during the first learning circle that suggested a perception of wilderness ethics that involved taking care of wild places in order to enhance the human experience.

I want to be outdoors and learn about it because it makes me feel more whole, it makes me feel more natural, and just finding a connection to a landscape to realize you're not much different than a cactus or much more advanced than a butterfly or that you share the exact same eye structure as mammals and birds, that should you pollute the world as much as you wanted to and not try to protect it eventually you'll kill everything off and yourself. My wilderness ethics right now is a sense and a need for the natural world more for my preservation than its'.

Other terms that people mentioned with regards to their wilderness ethic were respect, leave-no-trace (LNT), and preservation of wild places. Seven participants mentioned respect as an important part of their wilderness ethic. Six people mentioned leave-no-trace, but there was no articulation or depth to participants' use of the term. For example, Jill mentions 'the leave-no-trace stuff is really important.' As such, it seemed that peoples' use of the term leave-no-trace was cliché in the sense that it was a term that they had heard but didn't seem to be able to explain what it entailed for them.

During the first learning circle the second question shed light on what sorts of experiences (mental, physical and spiritual) participants had lived prior to their NOLS course that affected their understanding of wilderness ethics. Themes that surfaced here included four remarks of prior environmental learning through books or school, 13 references to prior outdoor experiences (both positive and negative), four participants commented on growing up in the outdoors with family, two individuals referred to their summer camp experience and three people spoke of spiritual connections or peak

experiences they had with nature. There will be more expansion on these themes during the analysis and conclusion chapter.

Learning Circle #2

A big personal thing that contributes to my understanding of what wilderness ethics includes is the fact that I haven't been in a building for a long time. You kind of realize this at home, you see the microwave and you know you don't need it; you see the fridge and know you don't need it, but not too often do I look at the roof and know I don't need it. Being out here gives me a fresh look at just how little I need to be perfectly content. I like the fact that I can do everything under a sky. Cade: Learning Circle #2

Deep in the heart of the Rio Grande river canyon, 44 days into the semester, our group gathered for the second learning circle around a small fire. At this point in the semester the participants had spent much more time working, learning and interacting with each other than prior to the first learning circle. Furthermore, as a group and as individuals, living out-of-doors was the day-to-day life all students were living with relative comfort and ease. By relative I am referring to my personal observations, and in this observation I am comparing participants comfort at the time of second learning circle with the first learning circle at the start of the semester. This 'way of life', living simply and experiencing the outside world, was a consistent theme throughout the second

learning circle. As discussed in the literature review, this was also a theme in the work of Kaplan & Talbot (1983)

In talking about what wilderness ethics means to him, Mackenzie commented, ‘Simpleness. Things are more complex back where we all live, keeping things simpler makes sense to me. Days are more simple here, what you bring out here is more simple. Also, just existing more with nature rather than having all the extravagancies.’ In the written questionnaire Sam mentioned that she was not yet sure that she knew what the term wilderness ethics meant to her.

She did write that

After 45 days or so of living outdoors I question all my needs...and discover most are wants. I shudder at the thought of a roof over my head while I sleep at night, with calm air suffocating me, as opposed to the breezes sailing in my nostrils peaking out of my mummy sack. A low impact life, living in the backcountry respectfully seems like it will and has (although it has not been tested in society yet) influenced the way I live in the indoor as well as the outdoor world.

Another theme of the second learning circle related to the definition of wilderness and peoples understanding of the term ethics. The group agreed during this discussion that ethics referred to a code of conduct or a personal set of rules one chooses to live with. Four students commented on the way their understanding of wilderness had evolved

in the first half of the semester and as it changed they indicated that their wilderness ethic was also shifting.

For example, Jenny said,

I did interpret an ethic as a code of conduct. I understand a wilderness ethic as a respect for wilderness with a stress on the wild part of the word. I now think that wilderness ethics is not just about a place, like a national park, but also an idea that we can't control things the way we might think we can. It's made me think about how human centric I was in my life at home.

Cade also commented on his definition of wilderness and the way it's shift has affected the way he views the world and his life as a whole.

I have come to accept, through thought and experience, the idea that we as a society, the western culture have at some point in time separated ourselves from the wilderness, named it 'the wilderness', creating for ourselves a dual world, one of society and one of wilderness. I believe this to be incorrect. Though we try to call where we live society and everything else the wilderness and keep them as separate as possible they should naturally be the same thing. I feel that my wilderness ethics is my continual thought and my progressive action towards integrating those

seemingly opposite meanings. This becomes a method for which I can live my life happily, which basically means that the ethics of my life, the way I see the world, what I value, what I do, should not be separate from or contingent upon a periodic rendezvous with this obscure idea of wilderness, but rather an intimate and continuous relationship with the world as a whole.

Not all students commented on their shifting definition of wilderness. Seven students maintained their belief that wilderness ethics was the way they chose to treat wild places when they were immersed in the wilderness. Wilderness for these participants remained as we defined it in the first learning circle, as the natural world that is still left. A few examples are Harry's description of wilderness ethics as 'treading lightly in wild places,' and Andrews written comment of wilderness ethics as 'when I go on personal outdoor trips in the future I will try much harder to leave as little impact as possible on the area I am living or travelling in.' Jason also shared his thoughts on wilderness ethics as a 'common respect for nature and the outdoors. Treating it with respect and dignity by not doing stupid things.'

Specific to the second research question, participants had many ideas related to what aspects (mental, physical and spiritual) of their NOLS semester experience so far had contributed to their understanding of wilderness ethics. As discussed earlier, the experiential aspect of the total immersion living outdoors was a major theme. Thirteen students mentioned this as a major contributing factor for their wilderness ethic. It became evident that the experience of living in the outdoors on peoples' wilderness ethic

was influential in different ways for different people based on the varying definitions people had of wilderness ethics. I prompted students to comment on which aspects of outdoor living experience they believed were contributing to their wilderness ethic. Themes that emerged included living by the LNT principles (7), peak experiences in the outdoors (5), increased awareness of environmental issues (5), instructor's actions in the outdoors (3), formal classes and discussions (3), course reading (3) and spiritual moments in the desert (3). As mentioned these themes will be expanded upon during the analysis and conclusions section.

Learning Circle #3

With a few nights remaining in the semester participants once again took time to reflect on the research questions. The attitude in the group at this point in the semester varied considerably. Some students were embracing the remaining days and other students were challenged mentally to truly remain in the present as their minds wandered to their lives beyond NOLS and to the home they would soon return to. The students that remained more engaged in the course as a whole provided a greater depth of answers during the final written questionnaires and the final learning circle discussion.

The first research question again created discussion surrounding the definition of wilderness. Participants agreed that this was at the root of their understanding of the term wilderness ethics. Eight students defined their wilderness ethic in a way that supported a definition of wilderness as the natural world that remains. Some examples of this include Matt's definition of his wilderness ethic on the written questionnaire. He said a wilderness ethic was 'to be respectful of the natural world, to minimize impact on the

environment and enact the principals of LNT to all aspects of outdoor life.’ Charly shared a similar definition during the learning circle. He said, ‘wilderness ethics to me is the way you treat the wild while you are in it.’

Five students were grounded in a definition of wilderness ethics that extended to all walks of life, whether or not they were themselves in a wild place. Jill shared her new thoughts in the discussion.

I now think wilderness ethics is all about complete respect for where you are, making sure that it stays the way it can stay and taking part in the things I need to in order to help keep it that way, even with the things I do at home. I’ve learned that everything I do affects this place and I want to keep it this way so I’m planning to bring that love back to the way I live at home.

Sally shared that,

In this last stretch of the semester I’ve realized that everything we do, either here, at home, everything we could possibly do will effect the environment in some way and realizing that is a big thing and then acting upon it and taking the steps necessary everywhere you are in anything you do to lessen the impact you have. I would like to reduce my place here on the whole earth, to reduce my presence.

Jenny told the group,

I am actually more confused about this term than when this course started.

I have pondered and reflected and know my understandings have grown deeper and more connected with this experience, I imagine wilderness ethics has something to do with leaving little impact on this planet, but I am still working it out.

Three participants noted that their notion of wilderness ethic hadn't changed since the last discussion. Cade and Jane noted that their wilderness ethic shifted greatly in the first half of the semester and much less in the second half. Cade noted that what did change in the second half was his belief in his own ideas. 'What were words have grown on me deeper in the final hiking section in the Gila, to now where I actually believe them to be true, more than just saying them and hoping they were right.'

Blake maintained an understanding of wilderness ethics that he entered the semester with, that notion being 'a code of conduct for all aspects of my life motivated by love and gratitude for wilderness.' He did comment during the last questionnaire on the way certain conversations and discussions had motivated him to be more open to communication with people that had different environmental attitudes;

Exposure to such a wide variety of environmental attitudes from my peers has given me a more realistic perspective on the attitudes of society and the necessity to communicate my beliefs clearly while listening in an open minded fashion in order to affect any real change.

After hearing from each participant and working to understand how each person had come to understand wilderness ethics in their life, we moved on to the second research question. The themes that arose in the second research question were similar to the second learning circle with a few additions. All of the students mentioned the constant exposure to the outdoors for such a long period of time as a key component to their wilderness ethic.

Based on people's differing definitions of wilderness ethics, it was clear that I needed to delve beyond the entirety of the experience living simply outdoors for such a long period of time. As such, I inquired about the specific aspects of their NOLS semester that were greatly influential in their understanding of wilderness ethics. This seemed to access more depth in the answers. Themes that arose included the experience of living LNT in the wilderness (8), solo/reflection time (5), wilderness ethics discussions (3), peak experiences (spiritual or feeling moments with the natural world) (4) and day-to-day conversations about the environment (3). These themes among others will be addressed to varying degrees in the next chapter. Some outliers of interest, mentioned in passing by individuals, include the way community, expedition philosophy and quality human interactions created a space for a deeper relationship with the natural world and a gradual shift in the thought process around the environment. These outliers will also be addressed in the next chapter; analysis and conclusions.

CHAPTER FIVE

ANALYSIS AND CONCLUSIONS

During the first learning circle when Blake challenged other students to think more deeply about their perceptions of wilderness and civilization, as integrated intimately rather than separate, he shared his beliefs that ‘a wilderness ethic has got to transfer into the urban environment.’ At this early point in the semester Blake’s comments accentuated the wide range of environmental attitudes and experiences students entered their NOLS experience with. Throughout the semester and in analysis I reflected numerous times on this portion of our first discussion and the way it developed and caused students to consider the question of ‘what is wilderness?’ in relation to their understanding of ‘wilderness ethics.’

Blake’s comments can also be used as a reminder of the curriculum objective and research questions that drove the initial research design. For clarity the curriculum objective I am referring to is, ‘by the end of the course we expect each student to make plans for the transference of wilderness ethics and practices into daily personal and professional life (IN PRT 3040 – NRL, appendix A, p. 1).’ For review the research questions are listed below.

1. How do participants make sense of the term ‘wilderness ethic’?
2. What types of experiences (physical, mental and spiritual) are contributing to participants’ interpretation of the term ‘wilderness ethic’?

In returning to contemplate the curriculum objective, research data began to make sense in the context of NOLS educational outcome goals. Themes will be introduced as

they emerged on the semester with anecdotes from the expedition. Within the context of the curriculum objective stated above the themes will be related to pertinent literature. A framework of suggestions will be made regarding wilderness ethics curriculum at NOLS. It is important to note that although themes can be drawn from these data, we must acknowledge that all these components are dynamically related in the actual context of the expedition experience. Each event is a unique gestalt, where the whole expedition experience is greater than the sum of its parts and where categories and themes are not rigid.

Where we began

Wilderness ethics is the way you interact with the wilderness. It is the way you cooperate with nature, love it, preserve it, protect it and how you view the wilderness and take care of it while you are there.

Sally, Written questionnaire 1

As recorded in the first learning circle, all students except one agreed on a definition of wilderness as ‘the natural world that is still left in its’ natural state.’ Within this definition of wilderness students displayed environmentally favorable attitudes supporting the need to ‘protect wild places’, ‘conserve nature’ and ‘leave-no-trace while camping.’ Consistent with previous research at NOLS (Lindley, 2005) the subjects in this study showed a high level of pro-wilderness attitude at the start of the course. This pro-wilderness attitude was also demonstrated in the way students shared knowledge of

the need to protect the natural world and facts about the troubled planet in their definition of wilderness ethics.

Thematically rare during the first learning circle was the demonstration of a perceptual or psychological link between the need to protect the wilderness and actions or lifestyle choices when not living in wild places. A few examples of this attitude from the first learning circle are quoted in students own words below.

If we can help to keep what is actually wilderness, wilderness, instead of trying to change what is already humanized or changed – there is really no way to reverse that. Kim

When I think of wilderness ethics I am thinking about the wilderness that has not been touched, and that we have the opportunity to preserve and leave the way it is. Charly

Wilderness ethics is a lot of awareness of the environment and taking care of yourself and others in the natural environment. *Jane*

During the first learning circle Blake was the only student to define wilderness as ‘everything, deep in the heart of a concrete jungle is just a modified wilderness.’ With this definition of wilderness Blake shared with the group that for him, ‘wilderness ethics has got to transfer into the urban environment through conscious actions and being totally aware of the wake of waste we leave in our paths.’ He also commented on the dualistic

perspective of wilderness and society being separate as one of the major problems of our world. Sterling (2001) refers to Blake's perception of the world as a 'holistic' worldview. Individual responses to Blake's ideas suggest an inability to understand or relate to this holistic view of the world at this point in the semester. For example, Kim responded to Blake's comments with the question, 'how would wilderness ethics transfer to the urban environment?'

During the first learning circle it seemed clear to me that this group of students had an abundance of factual knowledge related to environmental issues and problems. Sterling (2001) writes, that there is a 'dominant assumption that environmental problems result primarily from ignorance.' Students' responses during the first learning circle support this notion as their knowledge and fact based definitions of the term wilderness ethics dwelled on Sterling's so-called 'prescribed knowledge,' and in my observation some students actually demonstrated a belief that knowledge alone would lead to better environmental behavior. Sterling (2001), among others (Key; 2003, Orr: 1992) suggest that an experiential approach that is, more holistic and less knowledge-based in approach, will help to achieve a less dualistic perception of the world.

At this point in the semester it is fair to say that students understanding of wilderness ethics is primarily influenced by experiences that occurred prior to NOLS. It is possible that students conversed prior to the first learning circle regarding this topic. Every student enters his or her NOLS experience with a lifetime of 'baggage' that contributes to their worldview and their understanding of the term wilderness ethics. Based on student responses the experiences that most effected students' perceptions of wilderness ethics at this point in the semester were educational learning through

classroom-based school, prior reading on environmental issues and youth outdoor experiences. Both reading and educational learning in classrooms suggest a knowledge-based experience of the natural world that would coincide with the dualistic view of the world that Blake refers to in the first learning circle. Youth outdoor experiences were a key influencing factor for 12 of the students. This is an interesting topic as the details of these prior outdoor experiences play a key role in understanding people's relationships with the outdoors. Within the scope of this research, students' were given the opportunity to share what they thought were important influencing factors. Some students chose to share details and others simply shared that outdoor experiences prior to their time at NOLS were influential in their understanding of wilderness ethics.

Of interest, 3 of the students who did share expanded on peak experiences and spiritual connections they had previously had out-of-doors.

Cade shared,

I was snorkeling between two walls of an offshore island in the tropics. Looking above the surface of the deep marine, the walls towered hundreds of feet above me, cutting the equally blue marine sky. I dived down, the bottom distantly coming into focus with the silhouette of rays on sharks deep below. As I looked up from the depths I found my eye penetrated with that of an ancient green turtle. I can say that moment is indwelled in my memory; it was infused with beauty and the essence of the sublime. Time vanished, the moment became my universe and as bizarre as it sounds that turtle and I discovered one more kink of my reality. It is

needless to say such an experience drove a deeper connection with the power of the natural world.

Among a few others (Sam and Blake), Cade's reference to his time diving speaks of a peak experience (Maslow, 1976). A 'peak experience' being a generic term used to refer to experiences where 'there are feelings of limitless horizons opening up...the feeling of being simultaneously more powerful and more helpless than ever before, the loss of placing in time and space with the conviction that something extremely important and valuable has happened. (Maslow IN Key, 2003, p. 34)' Of particular interest for this study, Maslow (1970) proposes that these peak experiences are part of a personal developmental process, which he calls 'self-actualization' (p. 177). He suggests that peak experiences help to bring about growth towards an individual's highest potential and growth towards a discovery of the true self.

At the time of the first learning circle, the significance of certain students discussing their peak experiences with the natural world seemed relevant due to the apparent depth of experience and reflection students who spoke of them demonstrated with regards to the natural world. Maslow's work (1970, 1976) and reflection has increased the impact of the acknowledgement of these experiences in my mind.

Maslow (1970) mentions that all individuals have peak experiences, but that many people have been taught to ignore them or not speak about them because they fall outside of the realm of concrete knowledge. By ignoring them the potential for peak experiences to lead towards 'self-actualization' and deep personal growth diminishes significantly (Maslow, 1970). There will be more discussion of peak experiences, as they become a

prominent theme throughout the learning circles. It should be noted that Maslow (1970) describes peak experiences that mostly result from music, sex and art with little or no reference to the natural world beyond humans. His work is pertinent to the outdoors, as previously noted by Key (2003), because it brings together narratives and seeks to explain experiences similar to Cade's description of his experience diving.

Deep in the heart of the desert - and the Expedition.

I feel like when I go home everything will be turned inside out. It used to be that indoors was my life and then go outdoors for fun and now, after being outside and having everything outside, there is no inside. That's a big influence the wilderness has had on me. I feel like everything will be inside out, maybe from there can be balance and everything can come together. Sam Learning Circle #2

At the midway point in the semester students commented frequently about how normal and comfortable living out-of-doors had become. This is not surprising, given that students had been living, breathing and learning beneath the desert skies for almost 45 days at this point in the course. By the time of the second learning circle even students that were very new to the outdoors at the start of the semester, have had time to adjust and learn how to live well in the backcountry. By 'live well' I am referring to the way students learn to take care of basic needs (i.e. food, water, shelter) in order to live comfortably outside. Beyond basic needs 'living well' also refers to one's perception of

living in comfort with the outdoor world versus living and struggling against the outdoor world.

As related to dualistic views of wilderness, my personal observations and reflections working in the outdoors on extended expeditions have lead me to believe that learning to 'live well' and beyond basic survival *with* the out-of-doors has the potential to help to challenge dualistic views of wilderness that many students enter the NOLS experience with. My observations are supported through the students who commented on how living outdoors for so long caused them to ponder more of their lifestyle choices at home.

Being outdoors for so long has really got me thinking about my life as a consumer. And, it makes me realize how much simpler I can live when I go back home. I will walk more and drive less. I don't need to buy new clothes every few months – the ones I have are fine. I will try to be much more conservative with water as well, as I have realized it is a precious commodity. I already feel much more in tune with myself on this planet because of this course. Jane Learning Circle #2

I think that when the course is over I am not going to want to sleep in my bed. I think life can be so much simpler at home and I am not going to need nearly as much as I think I do and I think I'll be so much happier, less stressed. I'll be able to focus on the more important things in life, not just the material things. Jill Learning Circle #2

Lindley (2005) also comments on the ways experiential aspects of wilderness expeditions can affect the way people view the wilderness. In her research, exploring students perceptions of wilderness, ‘experience and immersion in the wilderness was a category that students indicated most influenced their (wilderness) attitudes.’ (p. 83)

Beyond comments on tangible lifestyle changes, Cade’s words below are one example of reflection that arose when his notions of wilderness were challenged after living outdoors for such a long period of time.

Wilderness ethics as an idea at first seemed essentially contradictory to me. The very terms ‘wilderness’ and ‘ethics’ in social setting are polarized opposites by definition, seeing that society, as a being finds structure in rule of law, a set of ethics mandated and subscribed to equally by the populous. On the other hand the civility provided by these social ethics are often mirrored by principles that are opposing in direction; barbarity, crudeness, primitiveness and filth are all characteristics found in our social idea of ‘the wild’. Despite this apparent incompatibility of the ideas of ‘wilderness’ and ‘ethics’, in my desert reflections, I have found the two fit together more than apart. Together, the terms coalesce an ideal defying the duality of our culture’s schism of society and wilderness and argue that unity of the two forces is not only preferred but is both innate and essential to the health of our species and our globe. Cade – Written Questionnaire #2

Specifically, the notion of this wilderness-society dualism seems to be at the root of students differing understandings, evolutions of thoughts and experiences related to the environment at the mid-point of the semester. In data analysis I began to look at what different sorts of experiences were affecting different evolutions of thought around the idea of wilderness ethics. What sorts of experiences were leading some students to express a more holistic view of wilderness ethics? What sorts of experiences seem to be consistently affecting students that maintain a dualistic view of wilderness ethics?

At this midpoint of the semester, beyond the extended experience of living outdoors, aspects of the semester students perceived to be important to their wilderness ethics were leave-no-trace curriculum (7), peak experiences in the outdoors (5), increased awareness of environmental issues (5), instructors actions in the outdoors (3), formal classes and discussions (3), environmental philosophy reading (3) and spiritual moments in the desert (3).

Of interest, the seven students that referred to the leave-no-trace curriculum all shared a similar notion of wilderness ethics that was consistent with a dualistic view of the world. Specifically, the people that referred to the leave-no-trace curriculum shared a view of wilderness ethics that was grounded in traveling in wild places with minimal impact.

I think NOLS...has reinforced my thoughts on wilderness ethics. Seeing trash is not fun, stepping in poop, and the javelinas also. Being out here seeing trash from humans makes me appreciate the times that I don't see it. Charly Learning circle #2

LNT has been big for defining the ethic more, a way to practice it with 7 easy steps. Mackenzie Learning Circle #2

My experience at NOLS has shown me how to lower my impact in the wilderness and put me in a place where I realize the need to respect and protect the earth. My LNT training and tips have given me new ways to respect the wilderness and minimized my impact while travelling in the backcountry. Pre-NOLS I had little idea how to be conscious in the wild, especially because it's more vulnerable to impact and change. Learning to leave no trace has contributed to my idea of wilderness ethics because it's the most respectful way to experience life in an outdoor setting. Harry

Written Questionnaire #2

The Leave-no-trace (LNT) curriculum is a large part of the NOLS environmental studies curriculum. There is a wide range of teaching that students may experience regarding LNT, but every student group is expected to learn and practice the seven LNT principles throughout their course. The LNT principles focus on creating a framework, which can help people minimize their impact in wild places all over the world. Often on a NOLS course the first class or discussion about the environment includes leave-no-trace. Based on this research and others done at NOLS (Hammit et al., 1995; Lindley, 2005) the LNT curriculum has an impact on students. It is referred to often when students are asked about their learning about wilderness ethics and low impact camping in wild places.

What more does this research say about the NOLS LNT curriculum? It is difficult to draw conclusions, but important to acknowledge that at the midpoint in the semester students with a more holistic view of wilderness ethics rarely referred to the LNT curriculum in the learning circles or written questionnaires. As a key component of the NOLS environmental studies curriculum, it appears that the LNT curriculum is important in teaching students how to camp and live in the backcountry with minimum impact. However, students' reflections thus far indicate on this NOLS course the framework may have been missing elements necessary to promote deeper reflection beyond the wilderness environment. Perhaps there are ways NOLS instructors can teach the LNT curriculum that promotes deeper awareness of one's relationship to the natural world?

Based on this study, students who move towards a more holistic view of wilderness ethics refer less to their learning of the seven LNT principles. They tend to reflect on their experience with the wild, with specific reference to spiritual moments, peak experiences, environmental reading reflections, the creation of metaphors and philosophical shifts as key experiences influencing their wilderness ethic.

Any experience thus far in the wilderness that truly moves my spirit, that makes me cry, or really happy to be alive in that place at that moment.

Every time I see something that gives me that feeling, it makes me only want to preserve it more and to allow other people to have that same feeling. Sally Learning Circle #2

At the entrance to the lower canyons Brandon and I hiked a hill near to camp and we were rewarded with a view of the opposing shores magnificent buttes and the great river winding sagely below. It was at that moment I felt my intrinsic connection to the world, to the earth at my feet, to the air in my lungs, to the friend at my side, the to vulture above, my body, my mind. The metaphor of the vulture flying in the air, supported by the invisible but constant touch of the world resonated to my core. I felt a faith kindled inside that reassured me that, like the vulture, should I place my trust upon the world, that it would support my troubled mind. I felt a connection to my friend, as a part of my community – a love innate to life itself founded in true sincere compassion, total trust and belief in goodness and value of him and life as a whole. This moment has catalyzed my senses about nature and my life. It morphed the words of Paul Shepard's' into words of my own, manifesting, or perhaps rediscovering the hidden love and need for the nature of life to be a life of nature. Cade Written questionnaire #2

From caving, seeing the aragonite tree in wind hix cave, and the delicacy of these environments and the delicacy of the whole entire ecosystem on a global sense and my part in it. I find every section of this semester creates new metaphors for me, gives me new ways to understand wilderness ethics, the earth in general and my place in it. Blake Learning Circle #2

Peak experiences were a large part of the first learning circle analysis. We can continue to see reference to the sorts of experiences Maslow (1970) referred to here through detailed descriptions of certain moments with the natural world. This research suggests a thematic connection between students who acknowledge these experiences and those who engage in a wilderness ethic consistent with a holistic worldview. As an educator this correlation makes me intrigued to understand how one might go about encouraging students to recognize these experiences are happening, and furthermore, to learn from the depth of clarity they may provide.

Cade's quote above refers to Paul Shepard's writing as influential in his evolution of thought regarding wilderness ethics. In particular, Cade read Shepard's (1995) essay *Nature and Madness*. This essay was available to students through a package of environmental reading I put together for the semester. In my experience as a senior field instructor for NOLS (over 100 weeks of field time), instructors on NOLS courses often provide optional or mandatory course reading to supplement the environmental classes and promote deeper reflection. There is currently a suggested reading list for NOLS courses. However the suggested reading list NOLS distributes has not been changed since I began working for the school, and there are few place-specific books recommended to students prior to or during their course. The reading material instructors bring into the field is usually not from the suggested reading list. Paul Shepard's (1995) essay was an extension of the NOLS suggested reading material and it clearly had an influence on Cade's shift towards a more holistic view of the world.

Much of the new thought I've encountered on my NOLS semester so far has come from a contemplation of writing by Paul Shepard entitled

‘Nature and Madness.’ Along with several other essays, this essay introduced me to new methods of comparing ecological and social problems as well as connections that I hadn’t considered between mechanisms of both the natural and social worlds. Ideas that I have especially embraced are concepts of the psychological dependency we as humans have to the natural world and the corresponding damage we suffer from as a society by repressing and replacing the natural facets of life with synthetic supplements. I learned of the connections between the effects of community and wilderness in mental and spiritual outlets and their substituted social trial, stemming as far as insanity, addiction, hatred and war. Cade Written Questionnaire #2

Based on the above reasons, it seems logical to me to recommend that NOLS review the suggested reading list, get suggestions from instructors and former students on pertinent and influential reading and then update it with specific books for each different location the school operates.

Cade goes on to acknowledge the importance of his personal experience outdoors in conjunction with the ecopsychology reading. ‘Though I may have read these principles and ideas and partially accepted them solely on their logical progression and the merits of their authors, I couldn’t fully accept them without spiritual connections of my own.’ Supporting our earlier discussion of knowledge without experience, Cade’s reflections support the notion that knowledge alone is not enough to solve or truly understand problems of the natural world (Sterling, 2001; Orr, 1992). The potential for instructors to

facilitate more reading material and discussions, combined with the experience living outdoors could help to engage more students to connect and learn more deeply from their physical outdoor experience.

Journey's End.

88-days of desert living have come and gone, over a thousand kilometres travelled, thousands of feet climbed and rappelled, a few sandstorms, one snowstorm, countless long days of hot dry sunshine, and sixteen dusty weathered souls intertwined as one expedition came to an end in the Gila wilderness area of New Mexico. Symbolic or not, it is interesting to note that the Gila wilderness area was the first ever designated wilderness area in North America. On our second to last night in the field we gathered around a campfire beneath a towering forest of ponderosa pine trees for our last learning circle.

Exploring individual definitions of wilderness ethics at this point in the semester did not seem to indicate any new themes or ideas. Stemming from the first learning circle people continued to share their understanding of the term wilderness as a contributing factor towards their wilderness ethic. A few more students extended their understanding of wilderness ethics to include a more holistic worldview. The majority of students maintained a similar view of wilderness ethics that they shared at the midpoint in the semester.

I was thinking about this when we got the sheet, and I realized that my idea of what wilderness ethics is hasn't really changed much since our last

discussion on the river. I was trying to piece together why that might be and I found it very interesting. At first it was very unusual to be spending all my time outside, living, eating and travelling, being everything outdoors and I think that allowed me to connect better and have a greater respect for the wilderness. I still believe that, and still think it's very important, but I think my revelation that wilderness ethics is having a respect for the environment, whether that means doing little things at home or coming out and enjoying this environment happened in the first half of this course. Jane Learning Circle #3

Jane's comments indicate that for her the initial physical novelty of living outdoors caused a great shift in her connection to the natural world. She, and two other students, also made reference to the minimal shift in her wilderness ethic in the second half of the semester.

As noted in the methods chapter, the length of this expedition is unique in the realm of research. Even at NOLS, past research (Hammit et al., 1995; Lindley, 2005; Mazze, 2006) has focused on students participating in shorter month-long courses. As a result there is little documented research about what happens during the latter half of a three-month wilderness expedition.

Students' comments suggesting that the second half of the semester did not have an effect on their understanding of wilderness ethics could suggest a variety of things. My initial reaction was that more could be done with the curriculum to develop and engage students to reflect on their relationship to the environment. Having said that,

Cade's words suggest that perhaps there is merit in letting a new comfort in the wild sink in deeper for an extended period of time.

My opinions about wilderness ethics haven't changed since the last time I answered this question, I still think we, as people need each other in community and harmony in nature to be healthy and sane. I think that the ethics to live and protect the wilderness don't need a distinction from those laws that we live by in a community. What has changed on this section is my belief in my own ideas. What were words have grown on me deeper in the Gila, to now where I actually believe them to be true, more than just saying them and hoping they were right. Cade Written
Questionnaire #3

While looking for insight I discovered the work of Greenway (1995), which suggests that after physically adapting to the wilderness there is a period of time where people begin to enter the wilderness psychologically. Greenway notes that even though every wilderness trip will have some effect most wilderness journeys only ever cross into the wilderness physically (p.132). Greenway's research suggests that only once we psychologically arrive in the wilderness can we begin to challenge culturally embedded norms, such as the data's recurring theme of a wilderness-society dualism.

In using Greenways's wilderness experience research to better understand this study's themes Greenway's (1995)'gradient of the wilderness effect,' considered to visualize the polarity of culture and wilderness seemed pertinent. At the midway point on

the gradient is what Greenway (1995) calls the ‘psychological wilderness boundary’ where one’s mode of information processing switches from culture-dominated or dualistic to nature-dominated or holistic. Greenway’s extensive multi-year study suggests that not many people cross the boundary (p. 132). Students’ comments in the final learning circle and written questionnaires concur with Greenway’s findings. Based on the data from this research, four students: Blake, Cade, Jill and Sally finished this expedition on the nature-dominated side of the psychological wilderness boundary. Blake’s comments from early in the course indicate that he crossed the boundary prior to his NOLS semester experience. Of the remaining ten students participating in the study, eight students appear to have moved along the gradient towards a nature-dominated view of the world, but still remained culturally dominated in their view. The remaining two students shared that they were more confused about the idea of wilderness ethics now than they were at the start of the semester.

I am actually more confused about this term now than when I started. I do not know what it means. I imagine that it could have something to do with leaving little impact on this planet, but I am still working it out. Jenny
Learning Circle #3

Based on my observations of these two students, Jenny and Sam, they appear to be battling with their understanding of wilderness and shifting notions of how they view the world. As such I would speculate that they are hovering in and around the ‘psychological wilderness boundary’ Greenway (1995) discusses. Sam’s words support

the idea that she is not entirely sure how she views the world, but she is clearly pondering a less dualistic view of the wilderness when she shares, 'I am interested to see when I get home and have distractions of capitalist America, material things and more plastic how my idea of wilderness will change.'

Related to the curriculum objective this dissertation has been exploring, it is unclear to me whether students maintaining a dualistic view of the world can still 'make plans for the transference of wilderness ethics and practices into daily personal and professional life.' Inevitably their plans will contain the underlying psychological theme of dualism where the wilderness is seen as separate from society. Greenway (1995) notes that wilderness programs built on dualistic ideals 'are not experiencing wilderness on its own terms but are using wilderness to develop skills dictated as 'useful' and 'empowering' by our culture.' Greenway (1995), among others working in the field of ecopsychology and environmental education (Key, 2001; Mazze, 2006; Orr, 1992; Roszak, 1995; Shepard, 1995) would suggest that current western culture, from which almost all NOLS students come from, is increasingly distancing itself from nature.

Moving towards an understanding of what leads people to move across the 'psychological wilderness boundary,' towards a more holistic nature-dominated view of the world, we can review the related themes mentioned so far from the research. They are peak experiences, spiritual moments, environmental reading, philosophical shifts combined with a web of personal outdoor experiences. The final learning circle brought attention to these themes and a few new ones. Solo reflection time, wilderness ethics learning circle discussions and classes related to minimizing impact in the front country were influential based on student responses. The LNT curriculum continued to be the

consistent theme referred to by students maintaining a dualistic perspective of wilderness ethics.

Solo reflection time is an interesting theme emerging as students were given solo time throughout the semester to be by themselves and free of distractions. In each section of the semester students had two half-days designated to reflection. Once, midway through the semester, students did a 36-hour solo where they were on their own for two nights and one full day. During the solo time it was recommended that students bring a pen and paper to record thoughts and/or reflections but no books or other distractions. The goal was to provide some time completely free from social interaction to fully immerse in the natural rhythms of the desert. For me, it is interesting that this did not emerge as a theme in the second learning circle. Perhaps the longer solo time after the second learning circle allowed students to appreciate and learn from the time alone. It is also possible that during the first half of the semester students were not ready to engage beyond the 'psychological wilderness boundary' (Greenway, 1995, p. 132) and for this reason the solo reflection times in the first half of the semester were less influential.

For me, students' reference to the learning circles as important in the development of their wilderness ethic is an indicator of the need to create a safe space for people to share, listen and explore their understanding of wilderness and their relationship to it. This theme relates to a topic that Cade brought up, which was not mentioned by any other students directly. During our last learning circle he spoke of the way his experience of 'NOLS first opened his mind to wilderness ethics, of the need for wilderness and community connecting together.' He spoke of the way his need for metaphor,

friendship, beauty and balance came instinctually, ‘but only after being stimulated by observing and experiencing nature and the community of our family.’

In a letter Cade sent to me following the course he expanded on the relationship of community and wilderness ethics to say, ‘just being with a group remote in nature, the very concept of NOLS, essentially stimulated my thoughts as though such a setting is good and right and natural for growth both inward and outward.’ This reference alludes back to the expedition philosophy, where individuals contributed to building a positive community from the start of their semester. Furthermore, Cade’s words demonstrate that the ability to promote healthy community growth on an expedition had an impact on his ability to build healthy relationships with himself and the natural world.

I believe the completion of a NOLS semester, or any three-month expedition for that matter, is a big deal for any young adult. Life as each expedition member comes to know it physically in the desert changes rapidly. Emotional support of the expedition team is no longer so easy to access as people leave to travel to their homes all over the North American continent. The real challenge of applying the things you have learned begins once the expedition ends. Based on Kolb’s (1984, 1988) experiential learning model it is clear the learning from an experience, such as a NOLS semester, is far from over when the semester physically ends and people go home. Reflective observation, the second stage in Kolb’s learning cycle, as related to the expedition experience as a whole can only begin once there has been some space to pause and ponder what has just taken place. So, it must be noted that the analysis of this research has focused primarily on the ‘concrete experience’ of a three-month expedition with fragments of reflective observation related to specific components of the expedition. As such, this two-

dimensional exploration of students' experiences, related to their understanding of wilderness ethics, will never fully represent the 'gestalt quality of the experience as a whole' (Key, 2001, p. 58). The best advice or learning I can share if you are looking to grasp the depth of the NOLS semester experience, and better contextualize this research data, is participate in a NOLS semester yourself.

Concluding Remarks: Research Implications at NOLS

Research analysis indicates that students' understandings of wilderness ethics shifted towards a more holistic viewpoint during a three month NOLS semester experience. In light of this, the NOLS organization, instructors and mission are to be commended and celebrated. However, upon completion of the course, only four of fourteen students demonstrated a holistic perception of the wilderness ethics. The dominant cultural perception of wilderness as separate from society remained prominent.

The curriculum objective this dissertation explored is open to some interpretation and it could be argued either way that the students of this course met the objective or not. Many students maintaining a dualistic perspective of wilderness commented that they enjoyed living simply and made plans to consume less when they returned home. Does this mean the curriculum objective has been reached? I propose that the answer to this question is less important than the learning this research can offer regarding the ways different types of experiences promote an engagement with the natural world beyond just physically living outside for a long time. As discussed in analysis, students' responses to the first research question consistently involved their definition of wilderness. In this light, study recommendations will focus on ways to engage students to perceive the

concept of wilderness ethics with more holistic quality and depth. These recommendations come from the analysis of themes extending from the words and voices of the students contributing to this research.

Programmatic implications from this research focus on the second research question, which explores aspects of the wilderness expedition students felt, were influential in the evolution of their wilderness ethic. The recommendations are listed below in no particular order.

1. Support and provide space for students to discuss peak experiences on NOLS courses.
2. Expand LNT environmental curriculum towards a more holistic view of wilderness. This research suggests some consideration of LNT as a part of the NOLS outdoor skills curriculum rather than the environmental curriculum may be pertinent.
3. Update environmental reading list. Make use of pertinent readings and essays that promote reflection on dualistic perceptions of wilderness and society.
4. Continue to create solo reflection time on courses.
5. Create space in expedition philosophy or positive learning environment to consider concept of wilderness early in students' wilderness experience.
6. Continue using discussions on courses to promote conversations around the idea of wilderness. Actively engage students to ponder what it means to psychologically enter the wilderness.

Based on this research and combined with twelve years of teaching experience on wilderness expeditions I believe these recommendations can positively support educational outcomes on NOLS courses. Finally, I have observed many of these recommendations happening at NOLS already, increased effort and awareness will aid in striving for consistency.

Suggestions for Future Research.

The focus of this study has been to look through the lenses of students, in order to shed light on the environmental education curriculum at NOLS. It would be interesting to follow-up with these students a few years after the course in order to access more stages of Kolb's learning cycle and gain a deeper awareness of how the NOLS semester experience as a whole effected these students' lives.

In addition, I am interested in the ideas, experiences and perceptions of instructors on the research questions. Varying cultural, educational, political and environmental choices of instructors influence tones of entire courses and the way certain environmental curriculum is prioritized. I am aware that one of the attractive elements working for NOLS is a freedom to design a course and share course curriculum in a way that fits each specific expedition. I would be keen to hear instructor and organizational perceptions of the recommendations resulting from this study.

Related to the first programme recommendation, suggesting that NOLS support and provide space to discuss peak experiences with the natural world, I think a case study exploring one or many students' experiences would be insightful. Perhaps it could

provide more insight on how to facilitate these experiences in the context of a NOLS course.

Continued future research on NOLS semesters in general will help the school understand and evolve towards outcome goals in a wide variety of curriculum areas. I believe the benefits of exploring the depths of these experiences far outweighs the difficulties associated with delving into the complexities of these sorts of experiences.

CHAPTER SIX

MY ACADEMIC EXPEDITION – LESSONS LEARNED

As defined in the literature review, an expedition has three components (Allison, 2002). It is a journey. It contains a degree of uncertainty and it has a degree of self-sufficiency. This dissertation has been an expedition unlike any other I have ever embarked on. It has been rich with learning, stories and personal reflection. It has increased my awareness as a NOLS instructor and as an individual trying to walk lightly on this earth. Furthermore, throughout the length of this academic expedition I have been challenged to stay present and open to possibilities.

Countless wilderness expeditions prepared me well for this unforgettable journey. However, this dissertation has confirmed that some lessons need to be learned through direct experience. For me, the biggest challenge was to maintain inspiration through the entire process. Many days I felt lost in a sea of data, no good map or compass to tell me where I was and unsure exactly where I was going. I had to remind myself to seek support from peers and academics familiar with this journey, and when I did the load always seemed a little lighter.

The research process itself was engaging, energizing and humbling. I was honoured to be trusted by the students and believe building and maintaining students' trust through the semester was my strength as a qualitative researcher. Many students thanked me for provoking thoughts and asking insightful questions related to my research. In the end students had so much to share, so many stories to tell and I could not

have predicted how difficult it would be to honour all of the things they had to say in data analysis. As this was the first time I have conducted research there were many learning's through the process. Most notably, as the research progressed I feel like I learned to ask more engaging and detail specific questions at opportune times. In hindsight, this skill could have helped me to access more details in the first learning circle on the topic of previous outdoor experiences. It should be acknowledged that the reason students' responses had more depth as the semester progressed was likely also due to an increase in trust and comfort level within the group and with me (Tuckmen & Jenson, 1977).

As this expedition comes to a close, there is great learning ahead as I begin to reflect on the process and the growth I have had from the experience as a whole. I will share recommendations with NOLS administration and instructors and have plans to be involved in writing the next NOLS Environmental Educators Notebook, scheduled for completion in 2008. Perhaps most importantly for me, the lessons learned and stories students' shared, during and since this research project was born, have seeped naturally into my approach to helping people discover, or rediscover, their relationship with the natural world.

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A wilderness is a natural environment on Earth that has been little modified by human activity. Wilderness areas are an integral part of the planet's self-sustaining natural ecosystem (the biosphere). CONTENT : A - F , G - L , M - R , S - Z , See also , External links. Quotes are arranged alphabetically by author. The love of wilderness is more than a hunger for what is always beyond reach; it is also an expression of loyalty to the earth, the earth which bore us and sustains us, the only home we