CONNECTING TO NATURE: HOW NATURE FACILITATES
WELLNESS

by

VALERIE J. NICOL

B.A., University of Victoria, 1986

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

in
THE FACULTY OF GRADUATE STUDIES

(Department of Counselling Psychology)

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

© Valerie J. Nicol, 1997
In presenting this thesis in partial fulfilment of the requirements for an advanced
degree at the University of British Columbia, I agree that the Library shall make it
freely available for reference and study. I further agree that permission for extensive
copying of this thesis for scholarly purposes may be granted by the head of my
department or by his or her representatives. It is understood that copying or
publication of this thesis for financial gain shall not be allowed without my written
permission.

Department of Counselling Psychology
The University of British Columbia
Vancouver, Canada

Date April 7, 1997

DE-6 (2/88)
ABSTRACT

This study posed the question: How does connecting to nature facilitate wellness. The Critical Incident Technique (Flanagan, 1954) was employed to develop a reasonably comprehensive scheme of categories that describe what, in connecting to nature, facilitates wellness.

Twelve participants were interviewed which resulted in the elicitation of 80 critical incidents. These incidents were organized into seven categories which were tested for soundness and trustworthiness. The categories indicate that wellness can be facilitated by: observation of the natural environment, observation of animals, activities in nature, overcoming a challenge in nature, performing a ceremony in nature, expressing feelings in nature, and extraordinary experiences in nature. A preliminary examination of the outcomes described in the 80 critical incidents suggests that empowerment, relaxation, release, perspective and connection can result from making a connection to nature.

A preliminary examination of what led up to the critical incidents was also conducted and revealed that emotional turmoil, decision-making, engaging in outdoor activities and work are possible precursors to the facilitation of wellness in nature.
The findings of this study are presented in a reasonably comprehensive scheme of categories that describe how nature can facilitate wellness. These findings contribute to the field of counselling psychology by providing an exploratory examination of an area previously overlooked, and by indicating potential implications for both research and practice.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ABSTRACT</th>
<th>ii</th>
</tr>
</thead>
<tbody>
<tr>
<td>TABLE OF CONTENTS</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>CHAPTER I: INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Purpose of the study</td>
<td>2</td>
</tr>
<tr>
<td>Rationale of the study</td>
<td>3</td>
</tr>
<tr>
<td>Approach to the study</td>
<td>5</td>
</tr>
<tr>
<td>CHAPTER II: REVIEW OF THE LITERATURE</td>
<td>6</td>
</tr>
<tr>
<td>BACKGROUND</td>
<td>6</td>
</tr>
<tr>
<td>First Nations Worldview</td>
<td>6</td>
</tr>
<tr>
<td>Shamanic Worldview</td>
<td>9</td>
</tr>
<tr>
<td>Ecopsychology</td>
<td>11</td>
</tr>
<tr>
<td>HOW DOES CONNECTING TO NATURE FACILITATE WELLNESS?</td>
<td>13</td>
</tr>
<tr>
<td>Respecting and appreciating nature</td>
<td>14</td>
</tr>
<tr>
<td>The powers of nature</td>
<td>15</td>
</tr>
<tr>
<td>Establishing a connection</td>
<td>17</td>
</tr>
<tr>
<td>Approach to the research</td>
<td>19</td>
</tr>
<tr>
<td>CHAPTER III: METHODOLOGY</td>
<td>21</td>
</tr>
<tr>
<td>Critical Incident Technique</td>
<td>21</td>
</tr>
<tr>
<td>Participants</td>
<td>22</td>
</tr>
<tr>
<td>Critical Incident Interview</td>
<td>23</td>
</tr>
<tr>
<td>Orientation</td>
<td>24</td>
</tr>
<tr>
<td>Elicitation of events</td>
<td>25</td>
</tr>
<tr>
<td>Procedure</td>
<td>26</td>
</tr>
<tr>
<td>ANALYSIS OF THE EVENTS</td>
<td>27</td>
</tr>
<tr>
<td>Extraction of the events</td>
<td>27</td>
</tr>
<tr>
<td>Formation of categories</td>
<td>28</td>
</tr>
<tr>
<td>VALIDATION PROCEDURES</td>
<td>30</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS, CONTINUED:

<table>
<thead>
<tr>
<th>CHAPTER IV: RESULTS</th>
<th>.................................................................</th>
<th>33</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIPTION OF THE CATEGORIES</td>
<td>.........................................................................</td>
<td>33</td>
</tr>
<tr>
<td>VALIDATION OF THE CATEGORIES</td>
<td>.........................................................................</td>
<td>53</td>
</tr>
<tr>
<td>Reliability of Categorizing Incidents</td>
<td>.........................................................................</td>
<td>54</td>
</tr>
<tr>
<td>Comprehensiveness of Categories</td>
<td>.........................................................................</td>
<td>56</td>
</tr>
<tr>
<td>Participation Rate for Categories</td>
<td>.........................................................................</td>
<td>57</td>
</tr>
<tr>
<td>EXAMINATION OF OUTCOMES</td>
<td>.........................................................................</td>
<td>59</td>
</tr>
<tr>
<td>WHAT PRECEDED CRITICAL INCIDENTS</td>
<td>.........................................................................</td>
<td>68</td>
</tr>
<tr>
<td>SUMMARY</td>
<td>.........................................................................</td>
<td>75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHAPTER V: DISCUSSION</th>
<th>.................................................................</th>
<th>77</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary of Results</td>
<td>.........................................................................</td>
<td>77</td>
</tr>
<tr>
<td>Limitations</td>
<td>.........................................................................</td>
<td>78</td>
</tr>
<tr>
<td>Implications for theory and research</td>
<td>.........................................................................</td>
<td>78</td>
</tr>
<tr>
<td>Implications for practice</td>
<td>.........................................................................</td>
<td>81</td>
</tr>
<tr>
<td>Implications for further research</td>
<td>.........................................................................</td>
<td>84</td>
</tr>
<tr>
<td>A personal reflection</td>
<td>.........................................................................</td>
<td>85</td>
</tr>
</tbody>
</table>

| REFERENCES                               | ......................................................................... | 87 |
| APPENDIX A                               | ......................................................................... | 89 |
| APPENDIX B                               | ......................................................................... | 90 |
LIST OF TABLES

TABLE 1: RELIABILITY OF CATEGORY SCHEMES ............... 55
TABLE 2: PARTICIPATION RATE IN EACH CATEGORY ........ 58
CHAPTER I
INTRODUCTION

As a profession, counselling psychology is devoted to enhancing the well-being of clients. Cormier and Hackney (1993) write that counselling can assume the function of change, prevention or life enhancement. As change, we are concerned with situations that disrupt the usual progression through life. As prevention, we help to anticipate and accommodate disruptive life events that are predictable. Life enhancement counselling "attempts to open our experience to new and deeper levels of understanding, appreciation and wisdom of life's many potentialities" (p. 2-3). Incredibly, the power of nature has been overlooked by the mainstream counselling profession as a viable means to achieve these goals.

Most people have early memories of themselves in nature. When asked to recall them, they are transported back in time to feelings of peace, serenity and satisfaction that they have long since forgotten. If memories of being in nature have such transformative power, it seems logical that actually being there will have a similar, if not more potent effect. Connecting to
nature is recognized as beneficial, however, little is known about how to include this activity as part of the therapeutic process.

To begin incorporating nature into counselling, we need information. We need to know how to make the connection to nature and we need to know what specifically in nature facilitates wellness in people. To address this need for information about the ways nature can promote our well-being, the research question posed in this study was: How does connecting to nature facilitate wellness?

The terms “wellness”, “well-being” and “healing” are used interchangeably throughout the text and refer to the same holistic experience, rather than discrete physical, emotional or spiritual experiences.

Purpose of the study

By interviewing people who regularly spend time in nature, the intention of this study was to explore how connecting to nature facilitates an increased sense of well-being. From information gathered in interviews, a set of categories was developed to determine specific ways nature can be used to improve and promote wellness. Due to a lack of previous research in this area, the objective of this study is to provide a basis for further inquiry and to
collect fundamental information and data that could readily be used to facilitate healing in nature for appropriate clients.

Rationale of the Study

The importance of conducting a study that examines how nature facilitates wellness is demonstrated by a number of reasons. First, most people believe the notion that a walk in the woods is good for the soul, but surprisingly few people act on it. Urban reality has disconnected us from the natural world and has caused us to limit our worldview to its confines. In addition, modern Western psychological thought and practice reinforce the alienation of the psyche from nature (Devereux, 1996). The result is increasing numbers of people who disregard nature as a means for psychological healing. To change this phenomenon, we need to expand our worldview to include nature, or, as Devereux (1996) describes, we need to reinstate the ancient sense of our relationship with nature. It is therefore imperative that research be conducted to determine specific ways people can be connecting or re-connecting to nature for the purpose of healing.

Second, life in a modern urban environment is often very unbalanced in favour of intellectual pursuits, at the expense of emotional, physical, and
spiritual ones. Problems with high stress levels, poor physical health, strained relationships, and emotional distress are rampant. Compounding this is the prevalent practice of treating problems in isolation, rather than holistically. A more beneficial approach to these issues is presented in the philosophy of the First Nations Medicine Wheel, which shows the mental, physical, emotional and spiritual entities as being equal and part of a larger whole. "Balance then is essential for the First Nations person because the world itself is seen as a balance of transcendental forces, human beings and the natural environment (McCormick, 1994). Another supporter of nature as healer was Hippocrates, the father of modern medicine, who said, "Nature is the cure of all illness" and he lived to be 109 years old (Swan, 1992). In consideration of these philosophies, this study seeks to define specific ways people can connect with nature to restore balance in their lives and benefit from holistic healing.

Third, there is a distinct lack of related research regarding the use of nature to promote well-being and psychological healing. There are several sources of information that can be considered tangential to this area of inquiry, such as First Nations philosophies of healing, Shamanism and Ecopsychology. However, none of these sources have been adapted for use in a mainstream counselling setting. The goal of this study is to provide basic
information for practitioners to use in assisting clients to make a connection to nature for healing purposes.

Approach to the Study

The Critical Incident Technique was chosen as the methodological approach for this study because it permitted the opportunity to speak directly with people who already understand the benefits of connecting to nature to increase wellness. Speaking directly with participants enables the researcher to capture the uniqueness of each participant’s knowledge and experience as expressed in their own words. Narrative accounts of participant experience enhance the reporting of information and tend to enrich the reader’s experience by bringing them into the moment. The Critical Incident Technique was also chosen for its suitability to address the research question. While a typical study using the Critical Incident Technique asks what facilitates and what hinders a particular aim, this study used only the question of what facilitates. As this is an exploratory study of a topic not previously researched, it seemed premature and outside my area of interest to focus on what, in connecting to nature, hinders wellness.
CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this chapter is to examine literature relevant to the question of how connecting to nature facilitates wellness. Various disciplines and philosophies that regard nature as important for healing will be discussed as background. Subsequently, prevalent themes related to connecting with nature in order to facilitate wellness will be examined.

BACKGROUND

First Nations Worldview

In surveying the history of Western psychological thought, the separation of “person” from “nature” can be traced back to Freud. He believed that madness would result if there was no boundary between the inner and outer self. To remain sane, a person should perceive the self to be “inside” and nature to be “outside” (Rozak in Devereux, 1996). More
recently, people such as Ecopsychologist Theodore Rozak have begun to oppose the person/nature separation.

While the notion of a connection between the mind and the natural world may seem recent to the field of psychology, First Nations people have been embracing this philosophy throughout their history. As McCormick (1994) writes:

The First Nations Medicine Wheel informs a philosophy of healing that approximates a traditional First Nations Worldview as it pertains to healing. The Medicine Wheel shows the separate entities: mental, physical, emotional and spiritual as being equal and as part of a larger whole. This reinforces the concept of interconnectedness and the belief that one part cannot be the center but must instead work with all of the other parts. The Medicine Wheel therefore represents the balance that exists between all things...Balance then is essential for the First Nations person because the world itself is seen as a balance of transcendental forces, human beings, and the natural environment.

(p.11-12).

In his exploration of what facilitates healing for First Nations persons, McCormick (1994) defines a series of categories to describe events perceived
as facilitating healing. Of particular interest is the category “Establishing a connection with nature”:

This category includes being in or with nature and in using the natural world for self-healing... For many First Nations people, there is a spiritual connection that exists between nature and humans in that humans are seen as part of nature...Some participants reported feeling further away from creation and the Creator because of the influence of living in the mechanistic, material world of the city. Connection with nature was sometimes seen as getting back to creation and the Creator...Nature helped participants to feel relaxed, cleansed, calmed and stronger.” (McCormick, 1994, p. 63-64).

In “Nature Power, In the Spirit of an Okanagan Storyteller” (1992), Robinson and Wickwire recount stories of nature-helpers (shoo-MISH). The people featured in the stories are children sent alone into nature where they encounter their nature-helper, usually in the form of an animal part. During the encounter, the person receives “nature power”, which is believed to be a life-sustaining spirituality that gives direction to the person’s life. Subsequent encounters with the nature-helper are reported to occur only when the person is in crisis (Robinson and Wickwire, 1992).
According to Leonard George, (1991), the gift of the conscious mind in human beings is what separates us from the balance and harmony of nature:

Nature has many ways of creating balance and harmony. All living things have their place in the spectrum of life, and all living things have their own roles and functions... it is a never-ending source of wonder to observers to see how well the creatures of the forest and other environments cohabit and contribute to the well being of their worlds...The only exception in nature is we human creatures, for we do not have a particular place and function in the life cycle...Because we aren’t set in definite roles, we must construct our own relationships with the others in our environment. (p.160).

From this perspective, people must choose to seek out a connection with nature in order to feel a part of the balanced and harmonious whole.

Shamanic Worldview
The Shamanic worldview may also be referred to as Nature Spirituality. In this belief system, everything natural on earth is alive and conscious. Animals, trees, water, rocks and the wind all have a consciousness and wisdom that we can connect with and tap (Dolfyn, 1989). In the belief systems of certain tribal peoples, human beings are very young and require guidance from those older and wiser, such as our grandparents the animals and plants, or our great-grandparents, the minerals. (Dolfyn, 1989).

According to Stevens (1988), shamans have no fixed dogma or religion. Instead, he writes:

Shamans consider all life forms to be interconnected, and a mutually supportive balance among them is essential for humankind’s survival. Our job is to understand this balance and to live in harmony with it, always taking nature into consideration in every endeavor. The web of power in nature is the life giver and the source of all successful activity. (p. 8).

Another fundamental belief in the shamanic worldview is respect for nature. Every being in nature is believed to be a potential teacher and friend. In order to communicate successfully with nature and reap the benefits of its power, we must communicate our respect, because with respect comes a lack of judgment and an openness to contact (Stevens, 1988).
There are numerous rituals and ceremonies performed in the practice of shamanism such as singing, dancing, drumming, smudging, and vision questing. The basic premise of all shamanic rituals and ceremonies is to align oneself with the forces of nature in order to tap into its great power. Shamans use the power of nature in various life-affirming ways to heal, help and protect all life. Dolfyn (1989) describes the practice of shamanism as a journey along a shamanic path:

As we walk this path, we also become personally empowered. Our self-esteem and demeanour grow as we begin to understand our own very important place in the cosmic order...we become healed as we heal others. We become nurtured as we nurture Earth Mother. (p.4).

Considering human beings are composed of all things found in nature - water, minerals, air etc., it seems illogical to consider ourselves as separate from nature. Learning to consider ourselves as the children of nature is the key to shamanic power (Stevens, 1988).

Ecopsychology
To address issues concerning the connection between nature and well-being, a new discipline called Ecopsychology was founded at California State University, Hayward. The Ecopsychology Institute defines ecopsychology as:

1. The emerging synthesis of ecology and psychology
2. The skillful application of ecological insight into the practice of psychotherapy
3. The study of our emotional bond with the Earth
4. The search for an environmentally based standard of mental health
5. Redefining “sanity” as if the whole world matters

As a therapeutic discipline, ecopsychology espouses the virtues of patients getting off the therapist’s couch and getting into the wilderness. The documented benefits of doing so include the experience of keener senses, sharper perceptions and expanded self-concept. By removing themselves from the chaos of daily living, people can become more in touch with their feelings and can experience a sense of freedom in the exploration of basic life issues.

Some of the ways ecopsychology is currently being practiced include three-day to month-long wilderness treks led by a psychologist that provide physical challenges while examining the spiritual and healing aspects of
nature. In this format, ecopsychology resembles an experience similar to Outward Bound meets the First Nations Medicine Wheel, whereby people embark on a rigorous journey that not only enhances physical awareness and abilities, but also addresses spiritual, emotional, and intellectual issues.

Ecopsychology is currently being applied to a vast and diverse set of issues challenging the mental and physical well-being of people today. Among the more popular and notable applications is Mike Cohen's "Project NatureConnect". Through nature re-connecting activities, participants learn to dissolve stress and satisfy their deepest loves, wants and spirit.

It is clear that the current trend is focusing less on traditional methods of psychotherapy and placing more emphasis on holistic alternatives. However, this trend is not new, but instead marks the "coming full circle" of our notions of what is healing. Based on this notion, the possible applications of nature to healing are infinite.

**HOW DOES CONNECTING TO NATURE FACILITATE WELLNESS?**

There are few sources of relevant literature, and those available are vague in their treatment of this topic. Most literature pertaining to a
connection with nature to facilitate wellness is typically part of some other worldview or discipline, rather than a discrete body of work. It appears no work has been done to determine specific ways of connecting to nature to facilitate wellness. Furthermore, there is an absence of literature describing the outcomes facilitated by making a connection to nature. Due to the lack of concrete research on this topic, a discussion of three pervading themes found in the literature will follow.

Respecting and Appreciating Nature

Shamanic literature refers to “Earth Mother” as the giver and sustainer of life, who is to be honored and revered (Dolfyn, 1989). Shamans venture into nature to experience the seasons and the elements as part of their practices. Their fundamental respect for nature is rooted in the belief that all things in nature carry within them the mystery of creation. Stevens (1988) states that the elements of nature respond to the respect you show them. Respect for nature is therefore essential for any shaman to establish a connection to, or to have communication with nature.

“The gentlest of river breezes stirred the golden boughs, dancing with a ripple through the tree. The poetry of Nature’s finest touch. Appreciation stirred within me. How blessed I am to be surrounded by such beauty, with an even greater blessing: that I allow myself time to experience such golden moments.” (p.117).

Cohen (1993) describes respecting nature by learning its unspoken language and the resulting feelings of goodness and joy that comes from this kind of natural communication. In Davies and Cohen (1995), a participant in Project NatureConnect reports, “I also learned to appreciate myself as a part of nature...I really owe a lot to this program for what it taught me about myself, my friends and nature.” (p.10).

There are many types of respect and appreciation shown to nature, yet this theme runs like a common thread through the diverse literature. While there are no concrete examples of how to demonstrate respect and appreciation for nature, this theme clearly plays an important role in connecting to nature.

The Powers of Nature
First Nations storyteller Harry Robinson (Robinson and Wickwire, 1992) describes receiving and using nature power in his collection of stories. The first collection of stories recount the initial passing of invisible power from power-helpers (shoo-MISH) to children. The second collection of stories describes the reappearance of the shoo-MISH to interact with individuals during a time of crisis. The third collection of stories details the use of shoo-MISH to heal others.

From a First Nations worldview, nature power has a variety of uses: personal protection from sickness and bad luck; guidance during a crisis; direction for how to heal others; superhuman strength; and potential for reviving the dead. However, not everyone receives the shoo-MISH. Those who do not must seek out someone who has the right kind of shoo-MISH to address their particular problem (Robinson and Wickwire, 1992).

A concept that is central to Shamanism is the “web of power”. This belief holds that all things of physical form have “spirit” and that spirit is the source of power for all life. The web of power gives meaning to the world and understanding it is the key to a shaman’s success. (Stevens, 1988).

Shamans believe that each person has personal power spots where his/her energy resonates best with that of the earth. These spots can be almost anywhere, and they provide a source of power and spirit that can be
tapped for help, support and answers to anything you care to ask. (Sedletsky Stevens, 1989).

Devereux (1996) recounts the experience of Steven Foster, a pioneer of Wilderness Psychology: “He learned that nature would speak to him only when he silenced his inner dialogue, and he saw many powerful teachings when his eyes were not governed by his preconceptions.” (p.144). During the wilderness experience, nature’s power is manifested in teachings, moods and symbols for the participant.

Establishing a Connection

When naturalist Gary Nabhan encouraged his children to have contact with nature, he sent them out to climb ridges and observe the grand vistas. Instead, they did not choose large open spaces, but small hide-aways. These intimate places have more meaning because they represent a primitive connection with the earth and its protective cover. (Nabhan and Trimble, 1994). For many people, the special places they retreated to as children represent fond memories of their early connections with nature.

James Swan describes a personal experience in which a connection to nature in a sacred place facilitated a transpersonal experience. Feeling deeply
depressed, Swan found himself following a blue jay down a trail in the woods. Eventually, he came to a sunlit clearing that had a magnificent view of Mt. Hood. Captivated by the beauty of his surroundings, Swan felt comforted - then began to cry. After a few minutes, he felt cleansed and realized that the sight of the mountain had moved him from depression to happiness and joy. Swan reports that he has collected details of more than two hundred similar experiences where someone describes a moving transpersonal experience that is associated with a special place in nature (Swan, 1987).

In his discussion on how to have a longer and healthier life, Chopra (1993) writes, “Your body’s cells are exquisitely attuned to the cycles of the moon, sun and stars. When you drink Nature in through your senses, this invisible connection is strengthened.” (p.321).

For some people, the connection to nature defies rational explanation. When Roads (1987) questioned whether his connection to nature was reality or illusion, he reasoned:

“If this is an illusion I am experiencing with Nature, if it is all imagination - then it’s okay. I like it. Who can make me a better offer?...To maintain a belief in death, fear, greed? Are they better? A dogmatic religion with a judgmental God? Is that better? My
experience is uplifting, expanding, loving creative, intelligent. Who can offer me a better reality or illusion? If I feel a great love toward Nature, and I feel love radiating to me from Nature, who has a better illusion to offer?” (p.101).

For both the First Nations worldview and the Shamanic worldview, the practice of rituals and ceremonies is a common way to make a connection with nature. Vision quests, sweat lodges and sun dances are a few of the many practices people have used to establish a connection with nature.

**Approach to the Research**

To address the lack of concrete procedures for making a connection to nature to facilitate wellness, this study will examine the research question using the Critical Incident Technique (Flanagan, 1954). The Critical Incident Technique is an appropriate methodology for an exploratory study because it has been shown to be both reliable and valid in generating a comprehensive description of a content domain (Woolsey, 1986). For this study, a comprehensive set of categories was developed to describe in concrete terms how connecting to nature facilitates wellness. The Critical Incident
Technique was also chosen because it permitted the opportunity to speak directly with people who already understand the benefits of connecting to nature to increase wellness. Speaking directly with participants enables the researcher to capture the uniqueness of each participant’s knowledge and experience as expressed in their own words. Narrative accounts of participant experience enhance the reporting of information and tend to enrich the reader’s experience by bringing them into the moment.

The lack of concrete procedures for making a connection to nature to facilitate wellness indicates the necessity for this exploratory study. The decision to use the Critical Incident Technique is supported by the knowledge that it is useful for opening and clarifying a new domain for further research (Woolsey, 1986).
CHAPTER III

METHODOLOGY

This chapter examines the specifics of the Critical Incident Technique, followed by a description of the sample, the interview procedures and the analysis of the information collected.

Critical Incident Technique

This Critical Incident Technique (Flanangan, 1954) is a method of interview research whereby participants are asked to describe events that facilitate or hinder a particular aim. This study employed only the question of what facilitates a particular aim. The question of what hinders a particular aim was found to be outside the area of interest for this research. In this study, the terms “incident” and “event” are used interchangeably. To be selected for the study, participants must have relevant experiences and they must be capable of articulation. Once the interviews are complete, reported events are extracted, then categorized according to similarity to form a comprehensive answer to the initial question.
Categorization of events by similarity creates a map showing what facilitated a given aim. This map of categories can be used for a variety of purposes such as theory or model-building, program development, and further research. The Critical Incident Technique has become popular with practitioners of counselling psychology due to the use of interview, which permits direct contact with participants, and access to rich narrative observations.

Participants

Participants for this study were recruited through a network of social contacts. A contact letter (Appendix A) was provided for distribution to interested volunteers. Individuals interested in participating in the study contacted the researcher directly. Two criteria were used to select participants. First, the individual had to have the ability to recall past experiences in nature. Second, the individual had to have the ability to communicate effectively in an interview conducted in English.

The age of the twelve participants in this study ranged from the late twenties to early fifties, with a mean age of 37. The gender distribution of participants was six females and six males. The participants all resided in the
lower mainland region of British Columbia. One of the participants was a part-time university student and all participants were employed. Participants were employed in such diverse occupations as social worker, fitness trainer, high school counsellor, radio sales manager, college biology instructor, dance troupe manager, cooperative education coordinator, outdoor equipment salesperson, Aboriginal program co-ordinator, office assistant, continuing education programmer and heavy-duty mechanic.

Critical Incident Interview

The Critical Incident interview consisted of two parts - the orientation and the elicitation of events. The purpose of the orientation was to familiarize the participant with the study and to clarify any questions or concerns while building rapport. During the orientation, a description was given of the type of events to be reported. An attempt was made to clarify that the terms “wellness” and “well-being”, for the purpose of this study, were to be understood in a holistic sense, rather than exclusively physical. During the elicitation of events part of the interview, participants were asked to describe events that indicated how connecting to nature facilitated wellness. As participants recounted the events, my role as interviewer was to ensure the
details were recorded accurately and completely, including what led up to the incident, what actually happened and what the outcome was. To assist participants in their recounting of events, I used empathic, reflective and summary statements. These statements also helped to clarify my understanding of the participants story.

Orientation

Participants received an orientation to the interview process that explained the purpose of the study and the type of questions that were asked. The researcher conveyed this information using the following statement:

Thank you for participating in my study of how connecting to nature facilitates wellness. The purpose of this study is to learn about events occurring in nature that facilitated your sense of well-being. The terms “wellness”, “well-being” or “healing” are used here in a holistic sense, which includes your emotional, spiritual and physical aspects.

Before commencing the interview, the researcher assured the participants of confidentiality and of their right to withdraw from the study at any time. Three interviews were conducted in the participants place of employment, while the other nine interviews were conducted in the researcher’s office.
Elicitation of Events

Each interview was tape recorded and lasted approximately one hour. The interview process began with the researcher asking participants to describe events occurring in nature that facilitated or increased their sense of well-being. As each incident was described, the researcher evoked details such as what led up to the incident, what specifically was facilitative and how it was facilitative. This procedure was repeated until the participant had depleted their recall of facilitative events. Actual questions used to elicit facilitative events and details were:

Think back to a time when you were in nature and something significant happened to facilitate or increase your sense of well-being

When the participant recalled an event, the interviewer asked,

What led up to this event?

“What exactly happened?

“What were the outcomes of this event? How was it helpful?

Occasionally, participants were conscious of the tape recorder and requested the tape be paused while they recalled events. The researcher encouraged participants to do this whenever they felt it necessary. The
researcher also encouraged participants to ask questions for further clarification and did the same when it was required. The types of questions used for clarification were: What specifically happened that was helpful for you? Or, can you describe how you knew this was helpful? Each time a new event was recalled, this procedure was repeated until the participant depleted their memory of events.

Procedure

In December, 1996, a pilot interview was conducted as a means of testing and refining the interview procedure. Participants for this study were recruited through a network of social contacts. Interested volunteers received a contact letter (Appendix A) and contacted the researcher directly to set up an interview at their convenience. The interviews took place during a seven week period from January to March 1997. All interviews were tape recorded and lasted approximately one hour. At the beginning of each interview, participants signed an individual consent form (Appendix B). When all interviews were completed, events were extracted and scrutinized according to several criteria.
ANALYSIS OF THE EVENTS

The events were analyzed with a three-step process. First, using the researcher’s notes and audio-tapes, the events were extracted and recorded on index cards, one event per card. Second, the event cards were grouped into categories according to similarity. Third, the categories were subjected to tests for reliability and validity.

Extraction of the Events

Each participant was assigned a code number to identify audio tapes and the events transcribed on cards. Everything analogous to an event was transcribed using the participants own words. The events were then carefully studied by the researcher and the research supervisor, with the following criteria in mind: (1) was there a source for the event? ; (2) can the story be stated with reasonable completeness? ; and (3) was there an outcome bearing on the aim? (McConnell, 1994). Meeting these criteria enabled the creation of more succinct statements from the sometimes vague and wordy language of participants. Great care was taken to ensure that the richness of
participants’ statements and their intent was captured when paraphrasing. After this process, two cards were deemed non-events and removed, leaving 80 complete events.

Formation of Categories

To enable the sorting of events into categories, each of the 80 events was recorded on cards with three separate components: description of event; what happened; and outcome. For some events, the researcher returned to the audio tapes to ensure that the essence had been accurately captured. The following examples illustrate how the events were recorded and that the participants words were left unchanged as much as possible.

(Description of Event)
I was mourning over the death of one of my clients, so I went down to the river and sat on the rocks.

(What Happened)
I wrote a poem about my client - how I want to remember her.
This place has become a sanctuary for me and it’s like I couldn’t
go anywhere else to write about her. Also, the fact that she was First Nations. It seemed like it was important to be in nature to do this.

(Outcome)
The environment by the river allowed me to feel better about her life, her death and everything else that happened. I needed to be in nature to do this grieving.

(Description of Event)
I needed to decide to move to Vancouver or stay in Chilliwack

(What Happened)
So I went into the woods and spent time experiencing nature by breathing and admiring the surroundings - I take deep breaths, hold and release.

(Outcome)
By taking a break from the decision, the answer comes. When I decided it was time to go back, the answer came with such a strength that there was no doubt for me that it's the right answer.

To begin the formation of categories, each event was reviewed with the focus on the second component (what happened). The researcher initially formed a set of eleven categories. In consultation with the research advisor, the categories were revamped and some renamed to better reflect their contents. Three categories were found to be redundant and were collapsed as a result of the renaming. For each of the remaining categories, prototype events were selected that emphasize the fundamental attribute(s) of the categories. The prototypes functioned as indicators during sorting. Further deliberations between researcher and research advisor resulted in the establishment of seven categories that represent all the events.

VALIDATION PROCEDURES

Three types of evaluation were conducted to determine the soundness and the integrity of the categories. The first evaluation was to determine if an independent judge would use the category system in a way consistent with
that of the researcher and the research advisor. A masters degree student in
the Department of Counselling Psychology was asked to participate as an
independent judge for this study. A description of the categories was given
first, then the judge was asked to place each of 40 incidents (a 50% sample)
in an appropriate category. When the categories were established, all 80
events were placed. This indicates 100% agreement. If the independent
judge placed 35 of 40 events in the same categories, this indicates an 87.5
percentage agreement. To consider a category system acceptably reliable for
use, Flanagan (1954) recommends a 75% or higher level of agreement, to
show that the categories can be used by different people in a consistent
manner.

The second evaluation was conducted to determine if the category
system was adequately comprehensive. The category system was initially
formed using 65 events from the first 10 participants. Two further
participants were then interviewed and the 15 events generated were
examined and categorized. This test indicated whether the existing seven
categories were comprehensive enough. If any of the new events could not
be adequately placed, then the formation of new categories would be
required. If the new events could all be accommodated by the existing
categories, this would indicate the system was reasonably comprehensive.
The third evaluation was conducted to determine the soundness of the categories. If a category contained only one or two events, it is possible that one of the participants distorted or falsified the event in some way. When a category contains reports of several similar events by different participants, the possibility that the events were fabricated diminishes. Agreement among independent persons, or interpersonal agreement is one criterion for assessing the objectivity of an event and is considered a basic test of soundness (McCormick, 1994). The level of agreement for each category is measured by dividing the number of participants reporting a category of event by the total number of participants.
CHAPTER IV

RESULTS

This chapter focuses on the information obtained from the 12 interviews (6 women, 6 men) and the 80 critical incidents generated from those interviews. The 80 critical incidents were assigned to 7 categories based on their similarities.

There are four sections in this chapter: The first section provides a description of each of the categories and includes examples of events assigned to the category; The second section focuses on themes found in the outcomes of events; The third section examines what led up to the events; and the fourth section reports on the methods used to establish reliability and validity.

DESCRIPTION OF THE CATEGORIES

Each of the seven categories will be described in terms of its composition and the range or variation found within it. Examples of incidents ascribed to each category will also be included. All of the incidents described
in this study indicate what participants found to increase their sense of well-being or wellness as a result of connecting to nature. The seven categories were not ranked in importance, and are presented here in random order.

**Observation of Animals (13 incidents)**

Many of the incidents found in this category describe a chance encounter between the participant and an animal or animals. Some of the participants came upon the animal(s) while they were involved in an activity such as running, walking or sailing, while other participants were stationary and the animal(s) came to them. In all cases, the animals were encountered in their natural habitat. Some of the incidents occurred locally, others occurred as far away as the Middle East and the Caribbean. Several participants report their encounters with animals increased their sense of well-being by establishing a communion or feeling of “oneness” with nature, and others report feeling privileged, as if they had received a gift.

**Examples**
It was in St. Croix. I was working with a friend, helping him to observe the behaviour of a certain type of fish. I had been in the water for about two or three hours watching the mating behaviour of this fish when a fleet of 21 squid came around to watch me. They have these big sentient-looking eyes. They were looking at me as if someone is home. It was quite eerie. I had a little chuckle inside though. A delighted kind of feeling from this mutual observation of each other. It was a connection of observers.

I was working on an oil rig on the Asian Sea. A sea turtle would come to have lunch with me everyday. He liked grapes. Spending time with the turtle was my get-away. I would go up afterward feeling recharged. No matter how hard the morning was. It was like a power nap but without sleeping. The turtle was nature wanting to connect with me.

During the summer, on Saturna Island about three years ago. I went up on the cliffs by myself to read. After a while, I happened to look up and a Peregrine Falcon flew past at eye level - it’s a very rare bird. If I had not looked up at that moment, I would have missed it. I felt very
privileged to have seen it when I wasn’t seeking it. It was exciting and peaceful at the same time. Making contact with this other world feels comforting - a kinship exists. I also have a sense of paradox. I feel connected to nature, yet I realized how removed from it I was at the same time.

The events in the category “Observation of animals” describe situations where participants felt more connected to nature as a result of their encounters with wildlife. Participants reported an increased sense of well-being that included feeling comforted, peaceful, energized and “one with nature” after meeting animals in their natural habitats. These encounters seem to be more meaningful because they took place where the animals dwell, rather than in an artificial setting such as a zoo.

Observation of the Natural Environment (23 incidents)

This category contains incidents in which participants attended to specific aspects of their surroundings. Sensory experiences like sights, sounds and smells in nature play a large role in the facilitation of wellness for participants. Many participants focused on water sounds - waves crashing on
Some participants focused on visual aspects such as a sunrise, sunset, a moon and starlit sky, leaves on a tree, or a rainbow. Other participants focused on the feel of wind, rain, heat, cold and water spray against their skin.

Examples

I was going through a divorce at the time. I was angry and frustrated due to all the marital conflict. I felt wound-up, coiled and ready to spring out of the marriage. I went to a rocky, wind-swept point in Victoria on a very stormy day. I felt wild and needed to be matched by the intensity of nature. It was very sensory-oriented. Fury. Loud, cold and windy. I stood there and just screamed into the wind. I felt freed by this intensity. I left there feeling strong - like a wild woman.

I wasn’t happy at work. I was managing a health food and nutrition store and the money wasn’t good. One Sunday I went to Golden Ears Park. I went into the trees several hundred yards away from the falls. I focused on the sound of little brooks flowing nearby, birds chirping and the smell of moss and things. I went there to meditate on a career
Eventually, a little voice within told me to do personal fitness training - RIGHT NOW! I quit my job on Monday and went to the gym for a workout. Within about 25 minutes, two people approached me to train them.

It was at the end of the school year last year. Things were very hectic. I felt as if I was on a treadmill and it was going too fast. I decided to take a trip to Long Beach. The waves have a speed, a rhythm that is slow. Even in a storm you can keep pace. It’s like a nursery cradle - in, out, in, out. The waves rock you and change the rhythm of your mental state to meet the waves. The effect of this rhythm causes you to slow down and the treadmill in your head slows down. It’s totally and completely hypnotic.

There’s this secret spot I go to. It has water, mountains and no people. It’s an Alpine lake completely surrounded by mountains. It’s like an on/off switch. I switch off instantly. I don’t think about anything as soon as I get there. It’s tranquil. My sense of smell is more in tune - cedar, moss and stuff. I can tell by smell and the wind if it will rain or
not. Food and water taste better there. I use the image of this place to relax when I’m back in the city.

We drove all night and arrived at the cabin at about 4:00 am. We went and sat out under the stars - no lights. Just four people sitting in silence. I counted four shooting stars. While I was laying there I felt very connected to everything, like a feeling of completeness. I experienced a feeling of roundness and enclosure - like the sky was a canopy.

After a long arduous hike to the summit of the mountain, and I was full of worries about not having prepared myself properly for the weather, I looked into the valley and saw that we were above the clouds. The bad weather and rain was below the cloud cover. Then I saw this perfect rainbow spanning the valley from mountain top to mountain top. I felt a sense of peace - release from worry. I also felt a sense of trust in myself and trust in being.

The category “Observation of the natural environment” contains events where participants experienced an increased sense of wellness due to sensory
input from their surroundings in nature. Attending to sights, sounds and
smells of the natural environment enabled participants to shift their attention
from problems to a more positive frame of mind.

Activities in Nature (20 incidents)

The incidents described in this category all pertain to activities in
nature that participants engaged in which facilitated a greater sense of
wellness. The activities range from commonplace, such as walking, hiking
and running, to unusual, such as showering in a waterfall, climbing a volcano
or snow-shoeing at night. In all cases, the facilitation of well-being came as a
result of connecting to nature through a particular activity. This category
differs from “observation of natural environment” because it does not
emphasize what the participant saw, heard, or smelled while they were doing
the activity. Instead, the participants experienced a shift in perspective that
led to a greater sense of well-being as a direct result of doing the activity
itself.

Examples
I went on a hunting trip with some friends. We were camping in the bush on Vancouver Island. After a couple of days with no shower, we went for a hike to find a waterfall one of the people knew about. It was incredible! I was showering in this waterfall and I looked down and saw trout swimming all around my feet. It was really cold, but what an experience. I paused for a minute and realized that I was exactly where I need to be in life. I had a feeling of peace and clarity - all is right with the world.

Several years ago, my brother was hospitalized for schizophrenia. It was really emotional and hard to deal with. I was inside the hospital and suddenly I felt a need to be outside walking. I wanted to be alone and I didn’t want to be enclosed or inside where anybody could bother me. I was walking for a while, not really watching where I was going. Within about 10-15 minutes, I was able to release all the pent-up emotions and tears that I had been holding in.

I was in a conflict with someone at work and I couldn’t resolve it. When I got home I decided to go for a run in the woods by my house to
expend some emotions. Initially, I couldn’t attend to nature around me, because I was obsessing about the conflict. About 20 minutes into the run, the rhythms of the world around take over, and breathing too. Then I can pick and choose what to attend to. Subjective energy was diffused and objective energy took over. Unlike the urban environment where everything is imposed upon you. Eventually, the conflict was put in perspective. The natural world seems so large, my problem seemed so small in comparison. My role in the world was also put in perspective. I want to affect change, but there’s only so much I can do.

I was about 17 or 18 years old. I went on a vacation with my girlfriend and her family. We were trying to decide about our future as a couple because she was going away to school in the fall and I wasn’t. We ended up taking these long walks together on country roads and in the woods and fields. Access to our emotions seemed easier. We felt freer to explore this aspect out in nature. Solitude, space air and water were conduits to our emotions. We ended up crying our eyes out at the beach trying to figure out our future.
I was trying to decide whether to do a masters degree. Deadlines were approaching for applications, taking a leave from work and all of that. One thing I did, was I went hiking up Grouse with the idea that if I could conquer the mountain (nature), then I should be able to conquer something in society (trivial) like a masters degree. By the time I reached the top I knew I would apply. I realized that nature is omnipotent and everything else is trivial.

Events included in the category “Activities in nature” describe situations where participants had a problem or dilemma they were struggling with when they chose to engage in an activity in nature. The activities undertaken facilitated a greater sense of well-being for participants in a variety of ways such as gaining perspective, groundedness, clearer thinking, or release from troublesome emotions.

**Overcoming a Challenge in Nature (6 incidents)**

The events in this category also involve participants engaging in some kind of activity in nature, but they differ from the events in the “activities in
nature” category because the presence of a specific challenge and the act of overcoming this challenge is what participants reported as helpful for their wellness. The events in this category range from being lost at 10,000 ft. on Mt. Rainier, to sailing through a storm in 70 mph winds.

Examples

We intended to go to the summit of Mt. Rainier, but the weather was really bad. My buddy and I couldn’t find the other group members and we got lost looking for base camp at 10,000 ft. Even though the weather was like a blizzard, we had no choice except to ski back down because we couldn’t find camp. We were skiing for quite a while and we couldn’t see anything. We eventually lost sight of the trail markers, so we were guessing the route. All of a sudden, the weather cleared for just a second. The clouds blew past and there was a clearing. It was then I saw that we were about 10-15 metres away from skiing off a 1500 ft. drop. We turned around and decided to camp out the rest of the storm. Eventually we found the trail again and made it back down. When I got back, I called in sick to work and spent my time visiting my
friends and playing with their kids. I re-evaluated what was important to me and children seemed to be.

I love a challenge, so I went out in last October's big storm. I was off Mudge Point on Quadra Island. The winds were blowing 70 miles per hour. All I could think about was getting the boat in. I was thinking, you are man, the boat is man-made, nature will win. This was a very humbling experience. It gives you perspective on your problems. Nothing else is relevant. It's only about survival.

The category "Overcoming a challenge in nature" includes events where participants experienced a heightened sense of wellness as a result of their triumphs in nature. Participants reported feeling empowered, more confident and gaining new perspective as a result of overcoming specific challenges in nature.

Performing a Ceremony in Nature (8 incidents)

Many of the incidents in this category describe participation in traditional ceremonies from the First Nations culture. These events differ
from those in “activities in nature” because participation involved a prescribed way of being, depending on the type of ceremony. All but one of the ceremonies described in this category are considered to be traditional forms of healing for First Nations people. Some ceremonies included in this category are: attending a sweat lodge; throwing tobacco into a river; participating in a sundance; going on a vision quest; and passing a smudge. The only ceremony in this category not recognized as part of the First Nations culture was performed by a non-native woman as an intuitive means for dealing with her grief and loss.

Examples

I had been holding on to my mother's ashes for several months because I couldn't decide what to do with them. I finally decided to take them to my grandfather's farm because it was a place that my mother and I had enjoyed together. There was a favourite place we had at the river and it was about a mile's walk from the house. It was really hot out and I was feeling anxious because I hadn't been able to open the box before - I was afraid to look at her ashes. I opened the box as I kneeled down at the river's edge. I was surprised at the ashes. They
looked beautiful like shells. I felt calmer now. I poured the ashes into my hand first, then into the river. Suddenly it’s like I knew what to do. It felt right. Everything felt integrated as I poured the ashes. The flow of the river emphasized the flow of life and started releasing me from sadness and the negative aspects of mourning.

The sundance is four days of prayer and fasting and specific dancing. One particular ceremony we honoured women. We honoured the womb. It made me think of my mother and grandmother. It's all about circles. Dances in circles to the North, South, East and West (this is the physical, emotional, spirit and intellect). I felt a deeper respect for life and women. I felt the energy of the earth when I was dancing.

In one sweat lodge I did there was a person there with diabetes. They had a “small death” - something like a vision whereby they learned that their younger sibling was getting more attention and they needed to create something in themself to get it back. After this person experienced a shift in consciousness, we could get to the root of the disease and then do some work to help change the course.
A family called me to help them with their mother’s death. I took them into the woods and we passed a smudge with burning cedar to help release their feelings, since they couldn’t grieve properly. Reflection on the mother’s life began and there was laughter too. This helped them to begin a healthy process of grieving.

The category “Performing a ceremony in nature” describes events where participants felt an increase in their well-being as a result of participating in a particular ceremony or ritual in nature. Most ceremonies included in this category are from the First Nations culture and are believed to facilitate wellness by cleansing and releasing negative emotions.

Expressed Feelings in Nature (3 incidents)

The events in this category are distinguished by participants’ descriptions of how connecting to nature facilitated wellness by enabling them to express feelings. Being in nature was conducive to releasing emotion and discovering their true feelings. Incidents include sailing, walking on the sea-wall and going on a weekend retreat.
Examples

This was when I lived in Edmonton. My colleague and I planned a weekend retreat to Rocky Mountain House because we were feeling stress from our jobs and wanted to get away. We were doing self-reflection on career, marriage and things, sharing intimate stuff with each other sitting on lawn chairs by the river while the waterfall was crashing down about 15 feet away. The experience provided a re-energization of my battery to help me deal with everything going on.

I went walking on the sea-wall with a friend. It gave us the time to really talk. Because I’m outside, I felt more able to let things go. Fresh air and the ocean make it more conducive to letting things go. By the time we were finished walking, I was more able to put things in perspective. Maybe my problems aren’t that big. The size of things in the outdoors make problems seem smaller. Releasing things outside makes them seem “gone with the wind” and that they won’t come back. The activity of walking releases these things. Energy of movement.
Events included in the category “Expressed feelings in nature” describe situations where participants experienced an increase in wellness as a result of releasing troublesome emotions in nature. Participants report that positive influences from nature, such as fresh air, open spaces, sights, sounds and smells influenced them to release negative feelings and emotions.

Extraordinary Experiences in Nature (7 incidents)

This category contains events that can be described as transcendent, or even supernatural. The participants who reported these events found connecting to nature increased their sense of well-being by enabling them to transcend the usual constraints of the world and daily living, and by enabling them to see from an alternative perspective. Events in this category include: seeing energy in trees; riding on a cloud; singing as if there was a choir of angelic voices coming from a single person; stopping a waterfall; finding an evil stone; having the sensation of light coming from the top of the head and extending into the heavens; and meeting an influential person while in a meditative trance.
Examples

I went alone to Alice Lake. I was thinking of a friend who passed away. I began looking at the leaves, the lake and the trees. I started to feel peaceful. As I connected to nature, I felt wonderful. My breathing slowed, I felt one with nature. As I was staring up at the clouds, I felt like opening my mouth to sing. I opened my mouth and voices began to sing beautiful harmonious music. Angelic voices - not my own - came out. It made me feel so good. Like a different person. It was incredible inner peace. It felt like angels singing through my throat and my friend's voice was in there. If he's a spirit, he gave me that as a gift to show me he's okay. The singing stopped, but for days I felt the feeling of inner peace. I can still go back to that place when I recall the moments of singing. It feels like I've been completely healed.

As a kid, I used to lie in the sand or something and stare at clouds. I'd watch the clouds, then I'd hear a popping sound out of the top of my head, then I'd be flying. Sitting on a cloud riding it, maybe looking for
my brothers. This was an escape for me. I felt very trapped in my daily life, so this felt good to rise up above it and escape.

I was climbing Mt. McKinley in Alaska. We were at 17,000 ft and feeling very tired. I came across a peculiar-looking black stone. When I picked it up, I immediately started to hyperventilate. I decided the stone was evil and was going to throw it away. Now I don’t know if this was because of the lack of oxygen or what, but then I decided that if the stone was evil, I would keep it and conquer it. More strange things happened. I lost a glove and blamed it on the stone. That night I was so tired that I prayed to the rock for really bad weather because I needed a days rest. It happened. Looking back, it seems like I needed something to motivate me to finish the climb. Believing the stone was powerful helped me to get to the top.

I was out in Langley seeing a client. Driving back, I was on a country road. It was a sunny day and the road dead-ended, so I decided to park there for a while. I had been reading the Celestine Prophecy, so I got the idea to practice seeing energy in trees. After a while, I saw a kind
of a glow around them. I felt happy and curious. Like I had an understanding of a connection to something bigger.

The events included in the category "Extraordinary experiences in nature" describe situations where participants felt an increased sense of well-being facilitated by the transcendence of normal experience. Transcendent experiences enabled participants to gain new perspective and experience a release from troublesome emotions.

VALIDATION OF THE CATEGORIES

Validity of the scheme of categories is concerned with the extent to which the categories are sound and well-founded. It is necessary to know how trustworthy the categories are so they can be used confidently in practice. The soundness and trustworthiness of the category scheme cannot be determined definitively, however, reasonable assurance must be given that the incidents reported by participants and the categories created are accurate, complete and justifiable. The researcher has applied three separate measures to indicate the soundness and trustworthiness of the categories.
Reliability of Categorizing Incidents

Reliability is a good indicator of trustworthiness. A well-known method of determining reliability is to measure the degree of agreement between independent judges using the scheme of categories (Andersson and Nilsson in McCormick, 1994). To illustrate the degree or level of agreement between independent judges, this study utilized the percentage agreement statistic. To consider a category system acceptably reliable for use, Flanagan (1954) recommends a 75% or higher level of agreement, to show that the categories can be used by different people in a consistent manner.

For this study, the researcher drew a sample of 40 incidents (50% of the total number of incidents collected) in which all seven categories were represented. A masters degree student in the Department of Counselling Psychology participated as an independent judge for this study. The researcher provided a brief description of the categories, then the judge was asked to place each of 40 incidents from the sample in an appropriate category. Each incident was recorded on a separate card with a code number as the only identifying information. The judge spent approximately 35
minutes placing the incidents. The percentage agreement of the independent judge is documented in Table 1.

### TABLE 1: RELIABILITY OF CATEGORY SCHEMES

<table>
<thead>
<tr>
<th>Judge</th>
<th>Percentage Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters student #1</td>
<td>95%</td>
</tr>
<tr>
<td>Inter-rater reliability</td>
<td>95%</td>
</tr>
</tbody>
</table>

A follow-up interview was conducted by the researcher with the independent judge who attained 95% agreement. The two incorrectly placed incidents were both placed in the “observation of natural environment” category. The independent judge indicated that she had missed the key words that would have helped her to correctly place the events. For example, the judge focused on, “this trip was about watching nature” instead of, “Began to notice animals...”. The oversight was attributed to haste and did not justify a change to the scheme of categories.

**Comprehensiveness of Categories**
The soundness of a category scheme can be tested by determining if the category scheme is reasonably complete or comprehensive (Andersson and Nilsson in McCormick, 1994). The method used to check for comprehension and completeness in this study was to form the category system using only the 65 events from the first 10 participants. Two further participants were then interviewed and the 15 events generated were examined and easily categorized within the existing category scheme. If any of the new events were unable to be placed, then the formation of new categories would have been required. Since the new events were accommodated by the existing categories, this indicates that the system is reasonably comprehensive. It is not possible to claim that the category scheme is completely comprehensive because there is always a chance that a new category could be found.

**Participation Rate for Categories**

Categories with a high rate of participation (number of independent observers) indicate a high level of agreement among participants. Agreement among independent observers is considered an effective test for the soundness of a category. The level of agreement for each category is
measured by dividing the number of participants reporting a category of event by the total number of participants (see Table 2). If a category contained only one or two events, it is possible that one of the participants distorted or falsified the event in some way. When a category contains reports of several similar events by different participants, the possibility that the events were fabricated diminishes. The range of participation rate was from 17% (Performing a ceremony in nature) to 83% (Observation of natural environment).
TABLE 2: PARTICIPATION RATE IN EACH CATEGORY

<table>
<thead>
<tr>
<th>Categories</th>
<th>Frequency</th>
<th>Participation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation of animals</td>
<td>6</td>
<td>50%</td>
</tr>
<tr>
<td>Observation of natural environment</td>
<td>10</td>
<td>83%</td>
</tr>
<tr>
<td>Activities in nature</td>
<td>8</td>
<td>67%</td>
</tr>
<tr>
<td>Overcoming a challenge in nature</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td>Performing a ceremony in nature</td>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td>Expressed feelings in nature</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td>Extraordinary experiences in nature</td>
<td>4</td>
<td>33%</td>
</tr>
</tbody>
</table>

n=12

Note: Frequency represents the number of participants reporting an incident in a category. Participation rate represents the percentage of participants reporting an incident in a category.

Other categories with a participation rate of 50% or greater are:

Observation of animals and Activities in nature. While six out of seven categories had a participation rate of 25% or higher, the category of Performing a ceremony in nature had a 17% participation rate, with only two participants reporting this type of event. This category was studied carefully to determine whether or not the incidents could be placed alternatively. It was
decided that the eight incidents were unique and the category should remain intact to highlight the distinctiveness of these incidents.

EXAMINATION OF OUTCOMES

The purpose of this study was to address the question of how connecting to nature facilitates wellness for people. Critical incidents were collected from participants and organized into a scheme of categories based on what actions the participants took, or what specifically was done to facilitate wellness. The scheme of categories was formed to organize the information collected and thereby make it more useful. In order to fully understand how connecting to nature facilitates wellness, it is also important to examine the outcomes, or results of the actions taken by participants. By examining each outcome of the 80 critical incidents, and by grouping them according to similarity, a framework of five wellness categories was created. These five categories are presented as an initial exploratory organization of the outcomes and are not intended to be conclusive. The tentative nature of the categories has resulted in some overlap. The five categories are described below with examples of incidents included for clarity.
Connection (22 incidents)

This category describes wellness outcomes where participants experienced a connection to nature which caused them to feel like they were part of something much "larger", rather than separate or alone. This resulted in a greater sense of well-being in a variety of ways such as: feeling "one" with nature - experiencing a seamless existence of all things; feeling grounded or attached to the world; feeling that life is unfolding as it was meant to; and feeling privileged to be part of the animal world.

Examples

One time when I was camping with my kids, we were doing a trail hike together. Every so often, we would stop and take a deep breath. The kids went ahead to a tree and called me to see it. It looked just like Christ being crucified. An amazing sight! We started to talk about it and about God - we felt it was a sign. From there, the kids started to express feelings about wanting to live in nature. They were asking me why we live in houses and drive cars. They wanted to know why we
can't live like the Indians in nature. They got very excited about the beauty of nature. As we talked about it, we felt closer to nature and to each other.

I was working on an oil rig in Libya. There was a problem with a water valve, so I drove down the water line from the oil rig to find it. It was about 140 degrees out and the valve was really hard to find. When I found it, I started to turn it and above the ground - in my peripheral vision- I saw this huge thing. A bird. It screamed. I screamed. We both almost had heart attacks. At first it couldn't get out and it moved sideways. Then it got free and started circling me. We just watched each other and had this kind of connection. Once my heart slowed down I felt fortunate to have encountered this creature that was migrating through the desert. From then on I watched the migration patterns of birds and realized that we are all “just passing through”.

I attended a workshop in Paradise Valley, Squamish. As part of the workshop we were asked to take a walk in nature. I went into the woods and I was sitting on a trail meditating. A deer walked up to me
- right up. The deer was calm and curious. I felt very connected-welcomed.

**Empowerment (16 incidents)**

The incidents in this category describe wellness outcomes in which the participant becomes empowered. Connecting to nature resulted in participants feeling empowered by increased self-esteem and confidence, inspiration, rejuvenation, challenge, motivation and accomplishment. Participants became empowered as a result of their own actions in connecting to nature and not as a result of the actions of others.

**Examples**

I went hiking with a friend in a valley. We got stuck on a ridge. It was about 3,000 ft. straight down. I felt scared. I needed to discharge all of my tensions before I could concentrate, so I jumped around and yelled for a while. After I did this, I was able to find a way down. When we eventually got back, I felt a sense of personal power and deep satisfaction.
I went backpacking as a cadet and learned survival skills. On a three-day trek up Mt. Vedder, I was the only woman on the trip (women are considered second class citizens in the military) and I was the only person who was able to light a fire. They were soon at my mercy because we were all cold and wet. This really increased my self-confidence. I proved to myself that if I’m determined I will succeed - despite what others think or say.

I went hiking with a friend at Golden Ears. This was one of the first hikes I ever did. We did a two day hike in one day. I didn’t know what I was getting into at first. It ended up being a thirteen hour hike. It was a big challenge in just getting up there for the first part. I kept asking myself if I could do it. When I got to the top I saw this 360 degree view with nothing higher in sight - unbelievably beautiful. I felt a total sense of accomplishment. Like I had conquered the challenge. I will never forget reaching that place.

Release (16 incidents)
This category refers to wellness outcomes whereby through connecting to nature, participants were able to experience a feeling of release from something that had been troubling them. Release was experienced in a variety of ways including, an outpouring of emotion such as tears or laughter, freedom from responsibility and worry, and becoming unblocked.

**Examples**

I went walking in the snow at night. It was cold- the falling snow made me feel like a kid. Fresh crunchy snow. I liked leaving footprints. It felt like everything was new again. The cold was invigorating. I just wanted to keep walking. The main thing I liked was feeling like a kid again. No worries, no adult stuff, now serious thinking. It made me very happy. I forgot anything that was bothering me. It seemed like I was somewhere else.

I was 21 years old and my best friend was killed. I went to the seawall in North Vancouver. I needed to normalize the day by walking near the ocean. It smelled the same, sounded the same and looked the
same as it always does. This helped me to feel that the entire world was not chaotic. I couldn't make sense of this death, my whole world was turned upside down. But the ocean offered safety and security. It represented something constant. I had done this activity with my best friend, so it felt safe and right to reflect on her life here.

**Relaxation (15 incidents)**

This category refers to wellness outcomes in which participants feel more relaxed and calm as a result of connecting to nature. Outcomes described in this category range from soothing, calming, relaxed and tranquil, to elated, happy and light.

**Examples**

I realized that I was staring into the campfire. The sounds, smells, I was more aware of the fire itself. How it's not so controlled. When the wind changes, so does the fire. The smell of wood and smoke, the crackling sounds and heat all seem more intense outside. It's very calming. Causes me to think and reflect.
I climbed up to a small hole away from the falls and started meditating, facing the falls. The sound of the waterfall carries you into the meditation. It felt like the waterfall washed away all the crap in my mind. I imagined it moving through my body, cleansing it. Afterward, I felt like I'd been on a spiritual journey. I felt relaxed and much lighter walking away.

It was up at the cabin. I went snow shoeing at night. It was cold out, but I didn't feel it. I like the crisp, crunchiness of the snow and the huge snowflakes falling straight down. Very quiet and peaceful. It made me appreciate how relaxing this simple basic, experience is for me.

During the break-up of my marriage I was in turmoil. I felt somewhat powerless because I left the decision for the future up to my girlfriend. I went to sit on a bench that overlooks Willows Beach. It was a warm, sunny September day. The reflection of the sun on the ocean, and the soothing nature of the water lapping on the shore - I had an outpouring of feeling about what I wanted. I felt "meditative". Emotions became
words, words became emotions. I left with a deeper sense of clarity. I felt calmer, more relaxed.

**Perspective (12 incidents)**

The incidents in this category describe wellness outcomes where participants experienced a positive change in perspective, or gained perspective they previously did not have. These outcomes included: changed perspective on relationships, conflicts and priorities in life; and new perspective on disease, role in the world and the cycles of life and death.

**Examples**

I had gone to the river full of sadness, thinking about all the negative things in my mother’s life. Her back injury, depression and finally her death from cancer. After I finished pouring out the ashes into the river, as I was walking back I saw the beauty of my surroundings with more intensity. No more feelings of loneliness. I remember looking up at the sky, spacious and blue, and feeling everything is as it should be. I’m all right, mother’s all right. It was a transformative experience.
Soon after that I found myself remembering all the good things in my mother’s life. The happy times.

I went on my first vision quest. Fasting outside for 4 days and 4 nights. I was put on a hill to watch nature. Trees come alive, animals come and become teachers for you. I made a circle of tobacco ties and I stayed inside for the four days. You go through a psychological shifts because you are aware of death. I learned humility and gratitude. Something was transmitted to me - knowledge of the unseen like the cycles of life and death.

**WHAT PRECEDED CRITICAL INCIDENTS**

To better understand how connecting to nature facilitates wellness, it is also important to know what was happening for participants before they took action in nature. In this section, the circumstances leading up to the 80 critical incidents were examined and categorized according to similarity. A framework of four exploratory categories emerged from this examination.
These categories are intended to provide a background only and are not conclusive. Due to the tentative nature of the categories, some overlap can be found.

**Engaging in Outdoor Activity (50 incidents)**

In this category, participants described themselves engaging in an outdoor activity for the sake of doing the activity itself. For many participants, engaging in outdoor activity is part of their lifestyle, so they did not set up the incidents by providing any additional information as to their state of mind, or their life circumstances prior to the event. It is also possible that participants were unable to provide this kind of detail. Probable reasons will be discussed in the limitations section of this study. Participants engaged in numerous types of activities including walking, running, hiking, sailing, skiing, mountain climbing, snow shoeing, diving, camping, paddling, meditating, sundancing, vision questing, and gardening.

**Examples**
I climbed a volcano in Indonesia alone. It takes 14 hours to climb. I left at midnight, climbed to the tree line, then waited for dawn. When I reached the top, I could see for miles and miles. The volcano was active - I could hear the sounds and see some lava. With the red sky, the clouds, the view and the sounds of the volcano, I felt very close to the centre of the earth. It had a calming effect. I use this image now when I’m stressed.

I was invited to a wedding by the ocean. In West Vancouver, Whytecliffe Park. I sang a song. Then 12 otters popped up and an eagle came out of the east. I interpreted the events for the couple. An eagle from the east means new beginnings. And the eagle takes prayers to the creator. The otters came from the south. This teaches us to be in the present moment and to be playful.

It was snowing and raining out. I didn’t feel like doing Dragon Boat practice. I went anyway and was freezing cold for the first 30 minutes. There was ice on the water that we had to paddle through to reach open water. I didn’t want to be prevented or beaten by nature. I felt challenged by the ice and the cold. I felt good afterward. Felt
physically looser, stronger. Mentally, I felt more clear and de-stressed. I felt energized. The cold really wakes you up.

I went to Golden Ears Falls with a friend. He showed me how to stare at the falls while covering one eye and deep breathing. While staring this way, in a couple of minutes, the falls stopped. Sound and everything before me. I was shocked and surprised, so I tried it with the other eye and had the same experience. It felt like time stood still. Afterwards, I felt very reflective. I was questioning the two dimensional experience of the world.

I was walking to the river and I saw a complete horse skeleton lying in a clearing, completely intact. I was very surprised to find it there. I felt curious about it, and spent a long time looking at it, but I didn’t touch it. It felt like a magical experience - like getting a gift from nature to be able to observe it.

Emotional Turmoil (19 incidents)
This category describes situations where participants were experiencing emotional turmoil when they decided to seek out nature. Some of the kinds of turmoil that led participants to venture into nature were: relationship problems; the ending of a relationship; grief and mourning or to begin the process of grieving; stress; and conflict.

Examples

It was when I was about 16 years old. I felt like I didn’t know why I was on earth. I was always contemplating the meaning of life. One day I went for a walk alone along the river on the Indian Reserve. I felt a connection with nature. On the way back, I felt like there was a light coming from the top of my head and extending into the heavens. I felt as if I was on a perfect path for me that is guided by the light. Then I felt that I shouldn’t worry so much. The light made me feel more patient about why I’m here.

I was going through the break-up of my marriage and I was in a lot of turmoil. I needed to be around the ocean and I needed to be alone. I went to English Bay and sat on a rock. I thought of the song
“Somewhere out there”. Looking up at the moon made me feel connected to my girlfriend because I knew she was looking at the same moon on the other side of the world.

Decision Making (5 incidents)

This category refers to participants who were having trouble making an important decision when they chose to connect to nature. The types of decisions participants were faced with included changing careers, relocating to another city, enrolling in a masters degree program, and the future of a relationship.

Examples

I had to decide between working at the college and full-time or keeping my business going. I went sailing with my girlfriend in the Gulf Islands. We found time to relax and talk about things. It was romantic and peaceful. Spiritual. Our surroundings facilitated discussion about what we both wanted. It turned out, I figured out that my decision
pertained to both our futures. I was able to make decisions about more than I anticipated.

I had been seeing a woman for a while. We were at a stage where we were deciding if the relationship was going to continue - to progress to the next level. We went to Pierce Lakes for three days of hiking and camping. The trail was bad and it was foggy. I asked her to hike to the summit as kind of a test. She declined, so I went alone. I reached the summit and I could see her waiting at the lake below. I realized that I had assessed her and she didn’t cut it.

Work (6 incidents)

This category describes events that came about as a result of participants attending to their occupational duties. The events in this category differ from those in the “engaging in outdoor activity” category because here, incidents were experienced while participants performed their jobs, rather than in a situation of their choosing. The incidents range from healing work to encounters with animals.
As a healer, I sometimes do different things for men and women. I took a troubled woman to flowing water (water is female energy). The woman placed negative thoughts onto some tobacco, then turned sunwise and put the tobacco into the water. As the tobacco washed away, the woman felt the negativity leave her.

I took a troubled man to a cedar tree - one that called to me. The man placed his negative thoughts or words onto some tobacco, which was then buried in a hole by the tree. The man placed his spine to the tree and felt positive energy flow in, while the negative energy flowed out.

**SUMMARY**

This study posed the question: How does connecting to nature increase your sense of well-being? Twelve participants responded with 80 critical incidents. These critical incidents were assigned to 7 categories previously described in this chapter. The scheme of categories was tested for soundness and trustworthiness and as a result was determined to be of use by others. In
addition, a framework was developed for both the outcomes and what preceded the critical incidents.
CHAPTER V
DISCUSSION

Summary of Results

Through the process of interviewing 12 participants, 80 critical incidents were obtained which describe how connecting to nature facilitates wellness. The 80 critical incidents were organized into 7 categories that were determined to be reasonably reliable. The scheme of categories consists of: observation of animals, observation of natural environment, activities in nature, overcoming a challenge in nature, performing a ceremony in nature, extraordinary experiences in nature and expressed feelings in nature. The 80 critical incidents were then examined on the basis of wellness outcomes. A preliminary organization of these findings produced five preliminary categories: empowerment, release, relaxation, connection and perspective. Finally, a third examination of the 80 critical incidents was conducted to focus on what led up to the events. This analysis yielded four further preliminary categories including: emotional turmoil, engaging in outdoor activity, decision-making and work.
Limitations

One of the factors that can be considered a limitation of this study is the number of participants. The purpose of this study was to conduct exploratory research in an area previously not studied. The 12 participants in this study provided important and useful information. However, it would be desirable to use a larger number of participants to make the research more definitive. Another limitation concerns the use of participants' self reports, rather than observation. Participants only report events which they are capable of articulating. It is possible that some events were not included because the participant could not express them or because the details were not tacit. Also, participants only report what they remember during the interview. It is possible that participants did not include some events which were forgotten. A final limitation of this study is the limited perspective of the researcher. It is likely that other researchers could have elicited more events or different types of events from participants.

Implications for theory and research
There is currently no theory regarding connecting to nature and how it facilitates wellness. However, the persuasiveness of results from this study suggests there should be. The seven categories describing what happened for participants provide a framework for how others can connect to nature to increase well-being. The five categories describing the outcomes of participant events reveal very positive and holistic healing experiences as a result of connecting to nature. The four categories describing what led up to the critical incidents show a variety of motivations for seeking out nature to heal. These findings establish the importance of a connection to nature as a method for increasing well-being and they provide a compelling reason for the development of a theoretical framework from which to conduct further research.

Further analysis of the critical incidents revealed some recurring themes that were not demonstrated by the three types of categories. For example: being in the woods was an integral part of 60% of the incidents; water (rivers, oceans, lakes, brooks, and waterfalls) plays an important role in 51% of the incidents; interacting with wild life was a factor in 19% of the incidents; and deep breathing was important in 10% of the incidents.
Four of the five categories based on critical incident outcomes are fairly typical - empowerment, perspective, relaxation and release are common goals of therapeutic practice. The fifth category - connection - is not common. Connection in this instance refers to 28% of the incidents where participants experienced an increased sense of wellness as a result of: feeling they had become one with nature; feeling they had connected to something much larger than themselves; or feeling they had become grounded or attached to the world. Clearly, nature was an integral part of these wellness outcomes.

Another interesting aspect of the wellness outcome “connection” is its prevalence in the critical incident category “observation of animals”. Of the 13 critical incidents ascribed to that category, 11 of them refer to a connection with nature as the wellness outcome. These figures describe 84% of the incidents in the category “observation of animals” having the same outcome - connection - while the other wellness outcomes of relaxation, release, empowerment and perspective are fairly evenly distributed within the other six critical incident categories.

One final aspect of the findings to be given consideration in the construction of a theoretical framework is the range of the 7 critical incident categories. The categories range from passive (observation of natural
environment and expressing feelings) to active (activities in nature, overcoming a challenge in nature and performing a ceremony in nature). They also range from concrete (observation of animals) to transcendental (extraordinary experiences in nature). These ranges of experience demonstrate that connecting to nature could be appropriate for people with widely varied interests and abilities.

Implications for practice

The findings of this study indicate four major points that have implications for practice. First, the critical incidents documented in this study demonstrate the power of connecting to nature in improving well-being. This knowledge would clearly be advantageous to use in the practice of counselling. Including the use of nature in counselling creates a multitude of possibilities for both practitioner and client. Fresh air, the ambient sounds and activity are just a few of the benefits to be enjoyed in nature. Of particular interest is the idea that the wellness of counsellors could improve concurrently with clients.

Second, the seven critical incident categories describing what happened for participants indicate a pattern of events that could be used to
facilitate specific kinds of connection with nature. For example, “expressing feelings in nature” suggests a low key activity, such as walking, where client and counsellor could easily carry on a conversation that would eventually lead to the client releasing some previously withheld emotions. “Overcoming a challenge in nature” would require the selection of an appropriate goal for the client. Upon reaching the goal, the client could benefit from outcomes such as increased self-esteem, empowerment and increased confidence. While Outward Bound provides challenging programs in nature, the purpose here would be to make this experience more accessible to counselling clients by creating an opportunity to experience similar outcomes without doing the intensely physical week-long wilderness treks. Both “observation of animals” and “observation of natural environment” suggest an interactive type of activity where the client actively pursues a connection with nature by paying close attention to surroundings. Clients and counsellors can decide together on the level of physical activity to be undertaken. All five outcomes (relaxation, release, connection, empowerment and perspective) were reported for events in these two categories.

Third, what led up to each of the critical incidents indicates situations that would be opportune for bringing nature into counselling. The four categories representing what led up to incidents (emotional turmoil, decision-
making, engaging in outdoor activity, and work) offer some insight as to appropriate scenarios for using nature in counselling, however, this area could be greatly improved by expanding this factor in future research. This type of information would greatly enhance a counsellor's ability to make an informed choice about using nature in the counselling process.

Fourth, the categories of wellness outcomes experienced by participants provide a basis for facilitating the use of nature in counselling and for program planning. The five wellness outcomes reported in this study, relaxation, release, connection, empowerment and perspective, suggest that connecting to nature as part of the counselling process could be appropriate for individual and group work. The 80 critical incidents used for this study were all about individual experiences in nature. However, with facilitation by a trained counsellor, these outcomes may also be attainable by groups. For example, stress management workshops are currently in high demand. This type of group could easily be run in a setting where participants could connect to nature and experience outcomes such as relaxation, release, connection, perspective and empowerment. This research could also have implications for counsellor training. To facilitate clients in connecting with nature, counsellors would require training in identifying appropriate clients and
issues, and they would also require education and training in how to facilitate the connection.

Implications for further research

These preliminary findings show that it is essential for more research to be conducted in this area. In particular, more people need to be interviewed to validate these results. The possibility now exists for other types of research to be conducted in this area. For example, the results of this study could be used as a basis to conduct survey research. Program development is another possibility as an offshoot project from this study. Programs with a focus on clients connecting to nature seem well-suited to case study research and program evaluation.

More research needs to be conducted specifically in the area of outcomes. Outcomes such as relaxation, release, empowerment and perspective are already recognized as valuable as goals of therapeutic practice. The outcome of "connection" was prevalent in this study and is less recognizable. Analysis of the outcomes using a different methodology could potentially provide more insight into this unique outcome and also into what produced the outcomes in general.
A personal reflection

Prior to the completion of this thesis, I had an opportunity to speak to a group of adult college students in the high school completion program about my topic.

I began with a basic introduction to the study, “Connecting to Nature: How Nature Facilitates Wellness” and the reasons I chose to do it. The group seemed mildly interested in the outcomes I shared and they asked a few questions about how to do this for themselves. Most interesting though, was the total captivation of the group as I shared specific incidents reported to me by participants of the study. It was clear then what was most interesting and inspirational to this group. A participant’s personal experience conveyed the results of this research far better than any graphics or detailed explanation could.

In the process of employing the critical incident technique, I had begun to focus on methodological concerns like categorization of events, and the significance of outcomes. I had lost sight of the human element of the research which attracted me to this methodology in the first place. The group I spoke to reminded me of that human element which is stated most directly
as the power of story. The stories themselves are the essence of the research and a result that is easy to overlook. It is these stories, I was reminded, that have the potential to inspire and illumine.
REFERENCES


