

CHAPTER ONE: BACKGROUND

Introduction

This case study examined how Outward Bound Western Canada (OBWC) course outcomes are achieved by exploring the relationships among course components, students' characteristics, and course outcomes. OBWC is a not-for-profit adventure education organization that provides wilderness courses for a range of populations with the objective of promoting "self-reliance, care and respect for others, responsibility to the community, and concern for the environment" (Outward Bound Canada, 1999, p. 1). Although these types of "course outcomes" are commonly reported as resulting from adventure education programs, little research has investigated how they are achieved. As a result, this study was undertaken to further develop the understanding of what causes course outcomes.

Background to the Study

The research literature...has been uni-dimensional; it has focused on outcome issues (self-concept, locus of control, etc.) and has held a blind eye to their relationship to programmatic types of issues (length of course, activity mix, instructional staff). In essence, we have discovered an educational black box; we know something works but we don't know why or how. (Ewert, 1983, p. 27)

Although Alan Ewert wrote this in 1983, the "black box" he refers to still exists. A few studies have explored how course outcomes are achieved (e.g., Conrad & Hedin, 1981; Dyson, 1995; Hattie, Marsh, Neill, & Richards, 1997; Riggins, 1985; Witman,

1995), but the majority have continued to focus on which course outcomes are derived from adventure education. As a result, most courses are designed based on theoretical literature (e.g., Walsh & Golins, 1976) and on personal experience. Although these sources of information are valuable, they provide a limited understanding of how course outcomes are achieved.

In order for adventure educators to tailor the design and implementation of courses to maximize course effectiveness, more information on how outcomes are achieved is necessary. A number of sources have identified the potential benefits of further research on the factors that cause course outcomes (Ewert, 1989; Flor, 1991; Gillis & Thomsen, 1996; Gillet, Thomas, Smok, & Mclaughlin, 1991; Hattie et al., 1997; Kolb, 1991; Meyer & Wenger, 1998; Thomas, 1985; Warner, 1984). Meyer and Wenger (1998) explain that “a greater understanding of the process through which outcomes or changes are achieved should...enhance the design and implementation of programs, further maximizing the benefits to all participants” (p. 244). It was with this aim that this study was designed.

Purpose of the Study

The purpose of this study was to gain a fuller understanding of how OBWC course outcomes are achieved in order to enhance theory, practice, and future research. More specifically, the study endeavored to develop theory that contributed to the knowledge base of adventure education. Through this theory and specific findings, the study sought to provide suggestions for enhancing the design and delivery of OBWC and other adventure education courses. In addition, the theory generated by this study

and the lessons that were learned during data collection will potentially be useful in future research studies on adventure education.

Questions to Be Answered

This study addressed the question, “How are OBWC course outcomes achieved?” This large and nebulous question was separated into smaller, more manageable research questions that provided the framework for the study. These questions guided the selection of data collection and analyses techniques, as well as the presentation of the findings. They are as follows:

1. Which course components contribute to which positive course outcomes?
2. Which course components negatively affect course outcomes?
3. How do the characteristics of students influence course outcomes?
4. How do the characteristics of students influence the impact that various course components have on course outcomes?

To seek answers to these questions, quantitative and qualitative data were gathered on the effects various course components and characteristics of students had on the course outcomes experienced by students. The data were collected from students through questionnaires, interviews, and observation and from instructors through interviews. They were then analyzed and interpreted to generate theory grounded in the data, to provide suggestions for improved design and delivery of courses, and to develop ideas for future research.

Rationale of the Study

As noted in the discussion of the background of the study, the current understanding of how adventure education course outcomes are achieved is largely based on theory as opposed to empirical research. As a result, assumptions and gaps in understanding undergird the design and delivery of adventure education courses, including those at OBWC. This, in turn, means that courses may not be as effective in causing students to experience positive course outcomes as they could be.

This study set out to change this state of affairs by gathering data on the factors that contribute to course outcomes. Through the development of research-based theory, the study aimed to determine the veracity of current assumptions and to fill the gaps in the current understanding of how course outcomes are achieved. Ultimately, the development of comprehensive theory that is grounded in research has many potential implications for practice.

By providing a fuller understanding of how course outcomes are achieved, this study could potentially be useful to OBWC management and instructors attempting to maximize the positive outcomes students experience. Management could apply information contained in this study to decisions about course design and instructor training. Instructors could also use a better understanding of how outcomes are achieved to inform their many decisions about course design and delivery.

This study also has important implications for the general field of adventure education. Although the objectives and content of courses may be different at other adventure education organizations, they may be similar enough to enable management and instructors to gain insight from this study. The implications of this could range from the improved design and delivery of courses at other organizations to the

development of future research studies that examine how course outcomes are achieved at other organizations.

Finally, this study could be used as a foundation for future research studies that chose to focus on particular aspects of how outcomes are achieved. This would deepen the understanding gained through this study and would stand to further benefit the practice of adventure education.

Definition of Terms

A number of terms are used in this document that are either specific to this study, to Outward Bound, or to the field of adventure education. These terms are defined here for clarity.

Several terms were defined for the purposes of the study and are included throughout this document. The term “course components” refers to any distinct aspects of OBWC courses. Parts of courses as diverse as rock climbing, the wilderness setting, and the attitudes of other group members are considered to be course components. “Students’ characteristics” are defined as distinct aspects of OBWC students, such as gender, age, population, and expectations. The term “population” refers to whether a student participated in their course as a member of the general public, as a “female survivor of abuse,” or as a “youth at risk.”

“Course outcomes” are defined as any distinct effects courses have on students. Course outcomes that are referred to in this document include changes in self-awareness, self-confidence, self-reliance, self-esteem, self-concept, self-responsibility, motivation, interpersonal skills, concern for others, and concern for the environment. The term “positive course outcomes” is used in this document to refer to increases in

students' self-awareness, self-confidence, and so on. "Course components that negatively affected course outcomes" refers to those course components that were found to reduce positive course outcomes or to cause negative course outcomes (i.e., decreased students' self-awareness, self-confidence, etc.). In this study, the term "self-concept" is defined as including the outcomes of self-confidence and self-reliance, "motivation" is defined as desire to learn and achieve, and "interpersonal skills" are defined using the examples of cooperation and communication.

The interviews conducted with OBWC students are described in this document as either formative or summative. The term "formative" is used to refer to those interviews that were conducted while students were on course and, therefore, still forming their views on how their courses were affecting them. The term "summative" is used to refer to interviews that were conducted after students had completed their courses and, therefore, had the ability to provide a summary of how they felt their courses had affected them. Individuals who participated in an Outward Bound course prior to 1999 are referred to throughout this document as "graduates." Individuals who participated in an OBWC course between June and October 1999 are referred to as "students."

A number of terms are included in this document that are specific to Outward Bound. The commonly used term "OBWC course" can be defined as a 7 to 36 day wilderness experience. Although many students can be enrolled in a course, they are divided into "patrols" of 10 or fewer students, each of which is accompanied by two instructors. Students are in a remote wilderness environment for the majority of their course and sleep in tents with other students. Courses normally include multiple days of backpacking/mountaineering, one or more peak climbs, one or more days of rock

climbing, a one to three day solo experience, a final expedition, a 10 kilometre run, and on longer courses, a one-day service project in the community. Students are taught a variety of skills during their course, such as backcountry cooking, map reading, and communication skills. As courses progress, students are given more responsibility and instructors become less involved in the group.

Several specific terms are also used to describe the different types of courses offered by OBWC. Enrollment in “Women of Courage” courses is restricted to female survivors of abuse. “Vista” courses are restricted to youth at risk and “Vista Leadership” courses are designed for students who have previously completed a Vista course. “Mountain Skills” courses are exceptionally long courses (36 days) which focus on teaching students a variety of hard skills, such as mountaineering, rock climbing, and backcountry skiing.

Finally, a number of terms are used in this document that are common in the field of adventure education. Most significant, the term “adventure education” refers to the development of students through wilderness based and non-wilderness based (e.g., ropes course based) programs designed to foster personal growth. Depending on the program, this growth could range from increased self-concept to increased team work skills. Outward Bound is one of the older and better-known adventure education organizations and has over 50 affiliated schools around the world.

“Framing” can be defined as introducing an aspect of a course to students in a specific way in order to procure certain outcomes (Priest & Gass, 1997). For example, before a group begins a climb of a mountain peak the instructor might frame success as working well as a team, rather than as reaching the peak. “Debriefing” can be defined as reflecting and talking about a course activity or event after it has been completed

(Priest & Gass, 1997). “Processing” can be defined as the sorting and ordering of information and as enabling students to internalize meaning from their experience (Luckner & Nadler, 1997). In the context of this document, processing is referred to as the sorting and ordering which is happening inside students’ heads. The term “transference” refers to the transference of learning from OBWC courses to students’ home environments (Priest & Gass, 1997).

Scope and Limitations of the Study

The bounded system under investigation in this case study was the process by which OBWC course outcomes are achieved. This means that anything that related to the achievement of course outcomes on OBWC courses in general was within the boundaries of the study, whereas other aspects of courses were not. However, in order to be able to extend theory grounded in the results to OBWC courses in general, the study was restricted to examining the influence of course components that are included in most OBWC courses. As a result, the impact of course length on course outcomes was outside the parameters of the study.

Several other limitations also affected the scope of the study. To ensure the study remained a manageable size, data collection was limited to certain courses, students, and instructors. Questionnaire distribution was restricted to the OBWC courses that were conducted between June and October 1999. Formative interviews were limited to students on two courses conducted during these months, while summative interviews were limited to a relatively small number of OBWC graduates. Finally, the number of interviews with instructors was limited by the quantity of OBWC instructors who volunteered to participate in the study. It is possible that these

limitations had some effects on the results of the study, although care was taken to ensure that data were collected from representative courses, students, and instructors.

Another limitation of the study was the way in which data were collected on the course outcomes experienced by students. Because this study focused on how outcomes are achieved, rather than on what those outcomes are, it was not necessary to conduct pre- and post-course statistical tests to ascertain what outcomes students were experiencing. Instead, the findings of other studies and the qualitative results of this study were used to determine the types of outcomes students were experiencing as a result of their course. As a result, the course outcomes reported in the study are less reliable than if they had been determined by pre- and post-course tests.

A similar limitation existed in the collection of data regarding how the characteristics of students were influencing course outcomes. It was not feasible to conduct pre- and post-course statistical tests to determine the course outcomes students were experiencing and to look for correlations between these outcomes and students' characteristics. Instead, relationships between students' characteristics and course outcomes were identified from the other quantitative and qualitative data collected. This makes the relationships reported in the findings less reliable than if they had been determined using pre- and post-course tests.

A final limitation of the study was that all of the data collected were self-reported. Data collected from questionnaires, interviews with students and instructors, and the observation of students' discussions provided information on students' and instructors' perceptions of how OBWC course outcomes are achieved. There was not a more objective way of determining how students were affected by various course components and, as described above, using pre- and post-course tests to identify links

between students' characteristics and course outcomes was not within the scope of study. Although it was unavoidable that the majority of the data be self-reported, it is important to realize that the results of the study are based on students' and instructors' perceptions of how course outcomes are achieved.

Outline of Remainder of the Document

The remaining four chapters of this document will serve a number of functions, including critiquing the related literature, explaining the study's methodology and procedures, presenting the results of the study, and discussing the study's implications. This section will explain in more detail what is contained in each of the remaining chapters.

Chapter 2 is a review of the literature related to the topic of this study. It identifies problems with the existing literature base of adventure education and provides an overview of the related literature. The chapter is divided into sections relating to the influence of course activities, the physical environment, instructors, the group, and students' characteristics on adventure education course outcomes.

In Chapter 3, the methodology and procedures used in the study are explicitly outlined in order to enable replication in future studies. The study is identified as an interpretive case study and the implications of this are explained. The design of the study, selection of the research site and participants, data collection, data analysis, and ethical guidelines followed in the study are described. Finally, the assumptions and limitations of the study are delineated.

Chapter 4 provides an overview and a summary of the findings of the study. The chapter is organized according to the research questions and is divided into

sections that discuss the course components that contributed to positive course outcomes, the course components that negatively affected course outcomes, and the influence of students' characteristics.

Chapter 5 begins with a summary of the first four chapters and then outlines the implications of the study. Grounded theory generated by the study is described and the study is discussed in relation to existing adventure education theory and larger theoretical issues. Based on the results of the study, suggestions for enhancing practice and facilitating further research are provided. The document ends with some final thoughts on the study.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

Overview

The purpose of this chapter is to provide a synopsis of the theoretical and research literature that addresses how adventure education course outcomes are achieved. The chapter is structured to parallel the presentation in Chapter 5 of the five branches of theory generated by this study. As a result, the chapter is divided into sections relating to the influence of course activities, the physical environment, instructors, the group, and students' characteristics on adventure education course outcomes.

Course Activities and Course Outcomes

The research indicates that a range of activities can lead to the positive outcomes typically associated with adventure education. For example, high ropes activities, rock climbing, and canoeing can all be used as tools to engender student growth (Marsh, Richards, & Barnes, 1986). This suggests that it is the qualities of these and other activities that are responsible for the outcomes, rather than the activities themselves. A number of people have theorized on what these qualities are (e.g., Gass, 1995; Luckner & Nadler, 1997; Schoel, Prouty, & Radcliffe, 1988; Walsh & Golins, 1976), and some have linked specific qualities to outcomes through research (e.g., Conrad & Hedin, 1981; Dyson, 1995; Hattie et al., 1997; Meyer & Wegner, 1998; Witman, 1995).

Several of the qualities of activities that are thought to lead to course outcomes are contained within a model supported by much of the literature. In this model, the

challenge involved in adventure education activities contributes to creating a state of dissonance, or constructive level of anxiety, in students (e.g., Luckner & Nadler, 1997; Walsh & Golins, 1976). It is believed that students must achieve success, or “master” the skills associated with the prescribed activities, to overcome this state of dissonance (Walsh & Golins, 1976). A number of studies have shown that this combination of challenge, mastery, and success can lead to student growth (e.g., Conrad & Hedin, 1981; Dyson, 1995; Iso-Ahola & Graefe, 1988; Witman, 1995).

The theoretical literature indicates that the challenges present in activities should be holistic in order to maximize course outcomes (Gass, 1995; Kimball & Bacon, 1993; Walsh & Golins, 1976). Walsh and Golins (1976) suggest that by requiring students to use their mental, emotional, and physical resources in combination, adventure education activities encourage concurrent mastery in all three domains. Others believe it is particularly important that adventure education activities engage the physical domain, as this requires students to “ ‘walk’ rather than merely ‘talk’ their behaviors” (Gass, 1995, p. 104; Kimball & Bacon, 1993).

The challenges present in activities are also thought to have the greatest influence on course outcomes if they increase incrementally (Kimball & Bacon, 1993; Walsh & Golins, 1976). As explained, challenge is believed to set in motion a series of reactions leading ultimately to the growth of students. Kimball and Bacon (1993) explain that “often the challenges are structured so that they appear to be insurmountable or dangerous” (p. 14) in order to cause dissonance in students. However, as students master new skills, a more challenging activity is required to achieve the same level of dissonance (Csikszentmihalyi, 1990; Walsh & Golins, 1976). Therefore, to enable growth throughout a course, it is thought that there must be

incremental increases in the degree of challenge in the course activities (Kimball & Bacon, 1993; Walsh & Golins, 1976). A study by Bisson (1998) supports these theories and indicates that the sequence of activities included in a course is related to course effectiveness.

Because mastery and success are believed to increase positive course outcomes, a necessary quality of courses is thought to be activities in which success is achievable (Kiewa, 1994; Nadler, 1993; Walsh & Golins, 1976). Bandura (1997) states that “successes build a robust belief in one’s personal efficacy,” and that “a resilient sense of efficacy requires experience in overcoming obstacles through perseverant effort” (p. 80). This theory is backed by the research of Iso-Ahola and Graefe (1988), which found that success in rock climbing led to increases in students’ self-esteem. Riggins (1986) states that research on traditional education has shown that “students are more likely to be motivated when they are able to praise themselves and feel good about their performance because they have achieved or exceeded the goals they set” (p. 3). Walsh and Golins (1976) suggest that concrete activities with a beginning and an end are more likely to encourage success, and that a needs assessment of students is necessary in order to choose activities that will maximize students’ potential for success. Kimball and Bacon (1993) explain that adventure education activities are typically “structured so that success and mastery are not only possible, but probable” (pp. 20-21).

Despite the importance of success, it appears that failure may also play a role in achieving positive outcomes (Bandura, 1997; Witman, 1995). Bandura (1997) states that “some difficulties and setbacks...serve a beneficial purpose in teaching that success usually requires sustained effort. Difficulties provide opportunities to learn

how to turn failure into success by honing one's capabilities to exercise better control over events" (p. 80). The value of failure is supported by a research study by Witman (1995) in which "learning from failures" was ranked by students as the 9th most valuable course component out of a total of 16. A panel of experts ranked "learning from failures" 15 out of a total of 16 in the same study.

Several sources indicate that both individual and group goal setting are critical components of adventure education courses (Marsh et al., 1986; Meyer & Wegner, 1998; Schoel et al., 1988). Schoel et al. (1988) maintain that students are more likely to experience success if they are able to define their own applicable and realistic goals. A recent study by Meyer and Wenger (1998) found that individual goal setting appeared to result in increases in students' confidence and concentration. Witman (1995) found that students ranked "setting/accomplishing goals" as the 7th most valuable course component out of a total of 16, while experts ranked it 13 out of 16.

Personal choice is also thought by some to lead to positive outcomes (Dyson, 1995; Schoel et al., 1988; Witman, 1995). Schoel et al. (1988) suggest that a "challenge by choice" policy, in which students choose their own level of participation, creates a respectful and supportive environment in which effort is valued over performance. Dyson (1995) found that students felt "challenge...was more meaningful when they took some ownership for what they were trying to achieve" (p. 398). In Witman's study (1995), students ranked "choosing levels of participation and risk" as the 15th most valuable course component out of a total of 16, while experts ranked it 16 out of 16.

Finally, specific types of activities may be important to achieving specific outcomes. Schoel et al. (1988) discuss several types of activities including "trust and

empathy activities,” “communication activities,” “decision-making/problem-solving activities,” “social responsibility activities,” and “personal responsibility activities” (pp.70-73). These activity types appear to be named for the outcomes they are hoped to achieve (Schoel et al., 1988). Witman (1995) found that students valued “helping others,” “getting support,” “having fun,” “doing problem solving activities,” “doing cooperative activities,” “doing ropes course activities,” “doing communication activities,” and “being a leader” (p. 133). Although the literature suggests that each of these is important to achieving outcomes, little research has linked specific types of activities with specific outcomes

The Physical Environment and Course Outcomes

Although a number of sources suggest that the physical environment is important to achieving adventure education course outcomes, little, if any, research has explored this relationship. Walsh and Golins (1976) identify an unfamiliar physical environment as a necessary component of an adventure education experience. They theorize that the contrast provided by an unfamiliar environment can enable students to gain new perspectives on the familiar environments from which they came. Others have supported the idea that an unfamiliar environment is important because it causes students to experience a state of dissonance by creating a “constructive level of anxiety, a sense of the unknown, and a perception of risk” (Nadler, 1993, p. 61). It is by overcoming this dissonance through the mastery of the tasks presented by the environment that students are believed to experience positive benefits, such as enhanced self-concept (Nadler, 1993). An unfamiliar environment is also credited

with providing “the freedom to experiment with new psychological strategies or a fresh sense of identity” (Kimball & Bacon, 1993, p. 26).

Although several types of environments can provide these benefits, some sources suggest a wilderness environment offers additional advantages and is therefore optimal (e.g., Hattie et al., 1997; Kimball & Bacon, 1993; Walsh & Golins, 1976). In addition to increasing students’ dissonance, the perceived risk of life-threatening danger and real risks such as becoming lost or getting wet are believed to increase students’ concentration and ability to master tasks (Walsh & Golins, 1976). As well, the straightforward nature of the tasks associated with the wilderness environment is believed to encourage mastery (Walsh & Golins, 1976) and ultimately to lead to enhanced self-concept (Nadler, 1993). The wilderness environment is also thought to encourage self-awareness and self-responsibility (Walsh & Golins, 1976) by providing “rules” in the form of natural consequences that students are unlikely to discount as being unfair or inappropriate (Kimball & Bacon, 1993; Hopkins & Putnam, 1993; Luckner & Nadler, 1997). Finally, the aesthetic and spiritual qualities of the wilderness environment are considered to facilitate personal restoration (Hattie et al., 1997).

Instructors and Course Outcomes

A considerable amount of research literature has explored the qualities of “effective” instructors (Aguar, 1986; Bartley & Williams, 1988; Hendy, 1975; Hopkins, 1982; Phipps & Claxton, 1997; Riggins, 1985; Riggins, 1986; Thomas, 1985; Wood, 1978). Most of this literature uses student or supervisor ratings to determine instructor effectiveness and does not specifically measure and compare the outcomes

of courses instructed by different individuals. However, it still provides useful information on the qualities of instructors that may be influencing course outcomes. Although there are many aspects of instructors that could potentially influence course outcomes if inadequate (e.g., technical skills), this review will focus on less obviously influential aspects, including instructors' expectations, interpersonal skills, personalities, and biographical characteristics.

The literature suggests that instructors can increase positive course outcomes by having high, yet achievable, expectations of students and by organizing the course according to those expectations. Dyson (1995) and Riggins (1986) both identify a relationship between "teacher expectations" and "student growth." Riggins (1986) suggests that by having high and attainable expectations of students, instructors create "a type of self-fulfilling prophecy" (p. 3). Walsh and Golins (1976) maintain that the activities included in an adventure education course should be well organized by instructors to cause students to have "educative" rather than "miseducative" experiences (Dewey, 1938/1966). According to Dewey, to ensure that experiences are educative, it is important to consider the internal conditions of students when deciding how to structure the external conditions of an experience (pp. 45-46). Hopkins and Putnam (1993) support this idea by stating that it is essential to "match students to an activity which suits their particular needs and requirements. If the match has been carefully facilitated, the learner will strive for mastery" (p. 103). Schoel et al. (1988) address this issue by suggesting the use of the GRABBS modality checklist to determine the appropriateness of an activity by assessing the Goals, Readiness, Affect, Behavior, Body, and Stage of Development of a group (p. 80). Walsh and Golins

(1976) suggest that by using tools such as this to plan and manage the activities included in adventure education courses, positive course outcomes can be assured.

Several research studies have indicated that instructors' interpersonal skills influence course outcomes (Brackenreg et al., 1994; Conrad & Hedin, 1981; Dyson, 1995; Hattie et al., 1997; Hopkins & Putnam, 1993; Wood, 1978). Accepting, encouraging, and nonjudgmental instructor feedback has been found to contribute to student growth (Brackenreg et al., 1994; Conrad & Hedin, 1981; Hattie et al., 1997; Hopkins & Putnam, 1993; Wood, 1978). Communicating individually with students (Conrad & Hedin, 1981) and being empathetic (Dyson, 1995; Hopkins & Putnam, 1993) have also been identified as important aspects of instructors.

The relationship between instructor personality and course outcomes has been the subject of considerable research (Bartley & Williams, 1988; Hendy, 1975; Hopkins, 1982; Thomas, 1985). A study by Hendy (1975) revealed that those instructors rated as most effective by superiors were typically reserved, bright, dominant, tender-minded, imaginative, forthright, experimenting, and creative. Bartley and Williams (1988) report finding that "instructor personality...had small but significant direct effects on course outcomes" (p. 6) but do not provide details on which personality characteristics were linked to which outcomes. Thomas (1985) found that a positive relationship exists between an instructor's self-concept and the amount of self-concept change their students realize. A study by Hopkins (1982) indicated that the "positive effect of the adventure experience on the growth of self-concept" (p. 11) could be negated by the influence of a "competitive, confrontational and unsympathetic" instructor (Hopkins & Putnam, 1993, p. 98).

The biographical characteristics of instructors are thought by some to influence course outcomes (Aguiar, 1986; Phipps & Claxton, 1997; Riggins, 1985). Riggins (1985) used students' evaluations of Outward Bound instructors to link several biographical characteristics to enhanced instructor effectiveness, including experience, not having participated in a Outward Bound course as a student, age, education, having four or more siblings, having traveled for "long periods of time," and being male (p. 8). Using the ratings of instructor supervisors, Aguilar (1986) also found a relationship between instructor effectiveness and instructors' levels of education and experience, but did not find a significant relationship between instructor effectiveness and instructors' leadership opinions, personality characteristics, vocational/leisure interests, age, or gender. In contrast, Phipps and Claxton (1997) found that students rated female instructors as significantly more effective than male instructors.

The Group and Course Outcomes

The literature indicates that several aspects of students' groups can influence the outcomes they experience (Conrad & Hedin, 1981; Gass, 1993; Hopkins & Putnam, 1993; Kimball & Bacon, 1993; Walsh & Golins, 1976; and Witman, 1995). The interdependency or reciprocity that evolves within a group is thought to be an important factor in the personal growth of group members (Hopkins & Putnam, 1993; Kimball & Bacon, 1993; Walsh & Golins, 1976; Witman, 1995). As they progress through a course, "the group realises [sic] it needs its individual members, 'warts and all,'" and as a result, learns to cooperate and capitalize on the strengths of each group member (Hopkins & Putnam, 1993, p. 108). This interdependency is thought to provide students with a sense that they are both valued and supported by other group

members (Kimball & Bacon, 1993), and to force students to learn to balance individual needs with the needs of the group (Gass, 1995). Witman (1995) found that “helping/assisting others,” “realizing the importance of caring about self and others,” and “getting support of other participants” were three of the four course components most valued by students.

This feeling of mutual dependence, combined with the group’s common objectives, is thought to create bonds between students that can be linked to course outcomes (Kimball & Bacon, 1993; Walsh & Golins, 1976). Kimball and Bacon (1993) suggest that “group cohesion results in an atmosphere that promotes honest emotional expression and sharing” and can lead to a sense of family within a group (pp. 22-23). This feeling of belonging is believed to fulfill a basic human need that is often not met in students’ daily lives (Walsh & Golins, 1976) and to result in “a greater likelihood that [students] will re-examine and explore their own values” (Chapman, McPhee, & Proudman, 1995, p. 246). Witman (1995) found that students ranked “feeling like part of the group” as the 6th most valuable course component out of a total of 16. A study by Conrad and Hedin (1981) found that students’ relationships with other group members influenced both students’ personal and social development.

Finally, group size is thought to influence course outcomes (e.g., Riggins, 1986; Walsh & Golins, 1976). Walsh and Golins (1976) define the ideal sized group as a “ten-group,” and as containing anywhere from 7-15 students. The benefits of this size of a group include being large enough to have diversity and conflict and yet small enough to avoid cliques and resolve conflicts (Walsh & Golins, 1976). Riggins (1986) states that research on the traditional classroom setting has shown a positive correlation between small group size and learning effectiveness.

Students' Characteristics and Course Outcomes

The literature includes a variety of views on whether students' gender, age, population, and expectations influence the outcomes that students experience as a result of courses (Conrad & Hedin, 1981; Estes & Ewert, 1988; Ewert, 1989; Hattie et al., 1997; Hopkins, 1982; Witman, 1995; Walsh & Golins, 1976). A meta-analysis by Hattie et al. (1997) found that females and males were similarly affected by adventure education courses. A study by Witman (1995) indicated that females valued "trust activities," whereas males valued those related to "power or dominance" (p. 134). Estes and Ewert (1988) suggest that because of "sex-role stereotypes," females and males may participate and react to courses in different ways. For example, while a male's success is more likely to be attributed to his abilities, both females and males are more likely to attribute a female's success to luck or special efforts. Estes and Ewert propose that these views are likely to result in different levels of self-efficacy in females and males. They also suggest that females are typically looking for spiritual development in adventure education courses, whereas males are seeking challenge and adventure. These differences in motivation are believed to affect students' behaviors and, ultimately, course outcomes.

A meta-analysis by Hattie et al. (1997) found that the short-term effects of participation in adventure education courses were greater for adults than for youth. They suggest that this difference may be a result of differences in reasons for participation; adults are more likely to be participating voluntarily and may therefore be more motivated. Conrad and Hedin (1981) also found that older students experienced somewhat greater growth, and reported a relationship between maturity

and the degree of approval given to an experience-based course. In contrast, Witman (1995) found that the perceived value of participation in a ropes course program was lower among older students. He suggests that this may be a result of more mature individuals perceiving less challenge in a ropes course.

Students' "population" may also be a factor in determining course outcomes. A meta-analysis by Hattie et al. (1997) found no differences in the effect sizes of "normal" students, managers, and delinquents" (p. 59). Similarly, Conrad and Hedin (1981) did not find a significant relationship between course effectiveness and grade-point-average or socio-economic status. Ewert (1989), however, suggests that students' past experiences can influence their attitudes and behavior, and ultimately can influence the outcomes they experience as a result of participation in an adventure education course.

Hopkins (1982) proposes that there may be a connection between students' expectations and the benefits they derive from a course. Walsh and Golins (1976) support this notion by explaining the importance of "thinking, feeling, and behaving as if there is something to be gained by participating" (p. 3). High expectations are believed to provide the motivation necessary for students to benefit from an adventure education course (Walsh & Golins, 1976).

Conclusions

The available literature indicates that the current understanding of how adventure education course outcomes are achieved is based largely on theory, rather than on empirical research. As a result, practice is grounded in assumptions and, perhaps, in an incomplete understanding of how course outcomes are achieved.

Before courses can be optimally effective, more research is needed to examine these assumptions and to have a closer look for any pieces of the puzzle that may still be missing.

Studies that have attempted to do comprehensive evaluations of how course outcomes are achieved have used a variety of research techniques (e.g., Conrad & Hedin, 1981; Hattie et al., 1997; Witman, 1995). A relatively recent meta-analysis by Hattie et al. (1997) compared the effectiveness of a number of different adventure education courses. Because many of the studies used in the meta-analysis did not include much information about the courses being studied, Hattie et al. were limited in the linkages they could make among course components, students' characteristics, and course outcomes. In addition to this limitation, it is difficult in a meta-analysis to control the variables enough to ascertain that differences in course outcomes are caused by variations in course components or in students' characteristics.

To get more detailed information on how the different aspects of a course are affecting the outcomes experienced by students, it seems preferable to follow the lead of Conrad and Hedin (1981), Dyson (1995), Meyer and Wegner (1998), and Witman (1995), and get information directly from students, instructors, and researcher observation. Qualitative data collection techniques, such as interviews, questionnaires, and observation serve to gather in-depth data and allow the inductive discovery of previously unidentified course components that may be influencing outcomes. In addition, quantitative data collection facilitates the comparison of the relative impact of various course components on course outcomes and enables the discovery of any links between students' characteristics and course outcomes.

As a result of these lessons gleaned from the literature, this study was designed to include both qualitative and quantitative data collection techniques. The literature reviewed in this chapter was also instrumental in the selection of the research topic and in the formulation of the research questions. Finally, the reviewed literature provided a point of comparison for the theory generated by this study.

CHAPTER THREE: METHODOLOGY AND PROCEDURES

Overview

After reviewing the literature and determining the study's research questions, appropriate methodology and data collection procedures were chosen. The study was identified as an interpretive case study and both quantitative and qualitative data were collected from Outward Bound Western Canada (OBWC) students and instructors through questionnaires, interviews, and observation between June and October of 1999. A number of techniques were then used to analyze the quantitative and qualitative data. This chapter will provide detailed descriptions of the study's research methodology, research design, site and participant selection, data collection, data analysis, ethical guidelines, and assumptions and limitations.

Description of Research Methodology

This was an exploratory study that attempted to describe how OBWC course outcomes are achieved and to interpret the findings in order to enhance theory, practice, and future research. These objectives identify the study as fitting within the parameters of the interpretive case study approach. According to Merriam (1991), the case study approach can be used

when description and explanation (rather than prediction based on cause and effect) are sought, when it is not possible or feasible to manipulate the potential causes of behavior, and when variables are not easily identified or are too embedded in the phenomenon to be extracted for study...A fourth and probably deciding factor is whether a *bounded system* (Smith, 1978) can be identified as

the focus of the investigation. That is, a case study is an examination of a specific phenomenon such as a program, an event, a person, a process, an institution, or a social group. (pp. 7-9)

This study matches all four of these parameters. First, the study sought to describe and explain how OBWC course outcomes are achieved by exploring the relationships among course components, students' characteristics, and course outcomes. Although a number of potentially important course components were identified prior to data collection, they were flexible and there was not an attempt to predict how components are related to course outcomes. Second, it was not possible to manipulate which course components would be included in the courses involved in the study as this could have significantly altered the quality and safety of the courses. Third, although the course components and characteristics of students can be perceived as the "variables" of the study, they could not be identified or isolated from each other prior to this study. Finally, the bounded system that was investigated in this case study was the process by which OBWC course outcomes are achieved.

Identifying this as a case study was useful in that it provided a model, based on the experience of others, with which to enhance the research. By classifying "the process by which Outward Bound Western Canada course outcomes are achieved" as the case, the boundaries of the research were identified. An understanding of the boundaries of the study was helpful in maintaining focus during data collection and analysis.

The description of this research as a case study was also helpful in ensuring the inclusion of "thick description" in the report. Denzin (1989) describes thick description as permitting

a willing reader to share vicariously in the experiences that have been captured. A thick description... goes beyond mere fact and surface appearances. It presents detail, context, emotion, and the webs of social relationships that join persons to one another. It establishes the significance of an experience, or the sequence of events, for the person or persons in question. (p. 83)

Thick description can be viewed as being important in a case study for three reasons. First, it captures more of the meanings that are present in a sequence of experience than “thin description” does (Denzin, 1989). This can result in a heuristic study in which “previously unknown relationships and variables can be expected to emerge” (Stake, 1981, p. 47; cited in Merriam, 1991, p.13). Second, it enables “judgments of transferability” by providing sufficient information to allow the reader to make comparisons to another setting (Lincoln & Guba, 1985, p. 359). Third, it creates the conditions for thick interpretation in which a “system of analysis and understanding that is meaningful within the worlds of lived experience” is constructed (Denzin, 1989, p. 101).

Identifying this research as a case study was also helpful in justifying the inductive nature of the study. Merriam (1991) suggests that most case studies rely on inductive reasoning in that “generalizations, concepts, or hypotheses emerge from an examination of data” (p. 13). Using this method, theory is developed after collecting data, and is therefore “grounded” in the data (Neuman, 1997). Although literature and deductive reasoning were used to develop flexible course component, student characteristic, and course outcome categories, these were created only to provide a starting point for data collection and did not inhibit the inductive development of new or different categories, particularly those emerging from the qualitative data. The

wealth of descriptive data collected was interpreted and used to create grounded theories on how OBWC courses outcomes are achieved. Because this study went beyond description and provided interpretation, it can be considered an interpretive case study, as opposed to a descriptive or evaluative case study (Lincoln & Guba, 1985; Merriam, 1991).

Several philosophical orientations have been used to support case study research, including phenomenology, hermeneutics, and the theory of tacit knowledge (Kenny & Grotelueschen, 1980; cited in Merriam, 1991). Kenny and Grotelueschen (1980) believe these philosophical orientations to be incomplete and internally inconsistent, and instead suggest the use of either a historical or pragmatic justification for case study research. A pragmatic justification fits well with this study and is defined by Merriam (1991) as

emphasizing the applied nature of case study research. As a method it can be advocated on grounds that it is more useful, more appropriate, more workable than other research designs for a given situation. Knowledge produced by case study would then be judged on the extent to which it is understandable and applicable – thus a pragmatic conception of truth undergirds this approach. (p. 20)

As explained previously, the case study is a useful, appropriate, and workable approach to this research. In keeping with the pragmatic orientation to case studies, the knowledge produced by this study is also understandable and applicable and will hopefully be used to facilitate the enhancement of OBWC courses.

Research Design

While course outcomes can be “measured” through changed behavior or attitudes, it is much more difficult to pinpoint how this change occurred. To gain an understanding of how OBWC course outcomes are achieved, it was necessary to rely on people’s perceptions for data. Thus, the perceptions of students and instructors were collected as data for this study.

Students’ perceptions of the relationships between course characteristics and outcomes were gathered using a questionnaire, formative interviews, summative interviews, and researcher observation of group discussions. Instructors’ perceptions were gathered through interviews. Triangulation of the data from these various sources was used to create a comprehensive picture of the relationships among course components, students’ characteristics, and course outcomes.

Site and Participant Selection

Outward Bound Western Canada was chosen as the research site as it is a well-established Canadian adventure education organization that offers courses for a range of populations. OBWC courses are conducted in the Coast Mountains of British Columbia, vary in length from 7 to 36 days, and are often tailored for specific populations such as adults, youth, “female survivors of abuse,” and “youth at risk.” Because the research questions focused on the relationships among course components, students’ characteristics, and course outcomes, the “case” for this case study was narrowed from “Outward Bound Western Canada” to “the process by which OBWC course outcomes are achieved.” Identifying and narrowing the boundaries of the study enabled more purposeful and in-depth data collection.

Four groupings of participants were involved in the study. Group 1 was the largest of the four groups and included those students who completed the research questionnaire (Appendix A). Questionnaires were distributed to 18 patrols of 10 or fewer students. Four of these patrols were 21-day adult patrols, three were 9-day adult patrols, one was a 9-day adult women patrol, two were 21-day 17 and 18-year-old patrols, two were 17-day 15 and 16-year-old patrols, one was a 36-day Mountain Skills patrol, four were 7-day Women of Courage patrols, and one was a 9-day Vista Leadership patrol. A total of approximately 160 students received the questionnaire, a cover letter explaining the study (Appendix B), and a self-addressed and stamped envelope. Participants not also included in Group 2 were given a consent form to complete and return with their questionnaire (Appendix C).

In total, 81 questionnaires were completed and returned. Of these, 45 were completed within one day to two months of students participating in their OBWC course and were received by surface mail. This variation in the time of completion was not found to result in any apparent differences in students' responses. The other 36 questionnaires were completed by students in the final days of their course. Two 15 and 16-year-old patrols, one 17 and 18-year-old patrol, and one Vista Leadership patrol were given time to complete the questionnaire while on course because it seemed less likely that younger students would voluntarily return their questionnaires. Other than the Vista Leadership patrol, these students completed the questionnaire on the final morning of their course after participating in all course components. As a result of time constraints, and because the Vista Leadership students had all already participated in a previous OBWC course, these students completed the questionnaire on the 7th day of their 9-day course.

Group 2 was the second largest group of study participants and was comprised of those who agreed to participate in the study while on a course that I was instructing. Between June and October 1999, I instructed a 9-day adult course, a 17-day 15 and 16-year-old youth course, a 21-day 17 and 18-year-old course, and a 7-day Women of Courage course. Near the beginning of each of these courses, the study was introduced to students (see Appendix D) and those who were interested in participating were asked to complete a consent form (Appendix E). Those students who completed consent forms become members of Group 2 and were observed during group discussions and, on two of these courses, were asked to participate in formative interviews (definition on page 6: Appendix F). Group 2 comprised a total of 35 students. All members of Group 2 were given a questionnaire to complete either on the last day of their course or after they returned home, thus entering the pool of potential members of Group 1. Those members of Group 2 who completed questionnaires became members of Group 1, which included a total of 81 students.

Group 3 included 11 OBWC graduates who participated in summative interviews (definition on page 6: Appendix G) by telephone or e-mail. Eight graduates who were OBWC students between 1992 and 1999 were interviewed by telephone. These graduates were selected using purposive sampling in order to maximize representation and “gain a deeper understanding of types” (Neuman, 1997, p. 206). They were chosen from a list of approximately 280 graduates with consideration given to ensuring a mix of different genders, ages, and populations (definition on page 5). Three graduates who were OBWC students between 1993 and 1999 completed the interview questions by e-mail. They were acquaintances of mine who agreed to participate in the study. None of the graduates who participated in summative

interviews completed a consent form due to the difficulties of obtaining signatures. They were, however, informed of the details of the study (Appendix D).

Group 4 included seven OBWC instructors who participated in either an in-person or e-mail interview (Appendix H). Three instructors were interviewed in person, and four responded to the interview questions by e-mail. The instructors who were interviewed had instructed at Canadian Outward Bound schools for an average of over five years. All instructors had the study explained to them (Appendix E), and the instructors interviewed in person completed consent forms (Appendix I).

Data Collection

Data were collected for this study in a variety of ways. OBWC students completed questionnaires, participated in formative and summative interviews, and were observed during group discussions. Interviews were also conducted with OBWC instructors.

Questionnaire

The questionnaire used in the study (Appendix A) was three pages long and divided into two sections. Section A was a quantitative matrix that required participants to indicate the impact that various course components had on several potential course outcomes, using a scale that ranged from a highly negative impact (–5) to a highly positive impact (+5). Section B included a series of qualitative open-ended questions related to the purpose of this research.

Questionnaire Design

The questionnaire was included as a data collection technique in this study for two reasons. First, a large number of participants were needed to ensure that the data provided representative answers to the research questions. Comparing the data collected through interview and observation to data collected from a larger number of participants through the questionnaire enabled checks to be done between the “depth” and “breadth” data collection techniques and added to the external validity of the study. The quantitative portion of the questionnaire was not intended to be “explicit sampling of some defined population to which the results can be extended” (Maxwell, 1998, p. 95), or, in other words, to enable “statistical generalizations” (Yin, 1989, p. 43). Instead, the questionnaire was intended to facilitate the development of “analytical generalizations” (Yin, 1989, p.43) or “working hypotheses” (Cronbach, 1975; cited in Patton, 1990) in which the findings can be used to generate theory on the relationships among course components, students’ characteristics, and course outcomes.

The second reason the questionnaire was included as a data collection technique was to test the usefulness of the quantitative matrix in Section A as a means of collecting detailed information on students’ perceptions of the relationships between course components and outcomes. The categories of components in Section A were carefully chosen to represent all of the components mentioned in the theoretical and research literature as potentially influencing adventure education course outcomes. The categories of outcomes were chosen to match the objectives of OBWC, as well as

to represent many of the outcomes associated with adventure education in the literature.

Questionnaire Validation

The questionnaire used in the study (Appendix A) was tested with five students at The Institute for Enterprise Education (IEE) who had participated in an adventure education course at the Corporate Adventure Training Institute (CATI) at Brock University. CATI's courses differ from OBWC courses in several ways, including: (a) rope course activities are used instead of outdoor pursuits activities; (b) students do not stay outdoors overnight; (c) courses are short and spread out (i.e., once a week for four weeks); and (d) course objectives focus on team building. Despite these differences, IEE students had enough experience with adventure education to complete the questionnaire.

Pilot study participants were all male and between the ages of 20 and 22. It took between 15 and 25 minutes for them to complete the questionnaire. Once pilot participants finished completing the questionnaire, they participated in a focus group discussion to provide feedback on whether any changes should be made to the questionnaire to increase comprehension and interest. There was a range of responses to questions about the questionnaire (Appendix J). Several individuals reported finding it easy to understand and to complete. Others commented that both Sections A and B should be shortened to make the questionnaire easier to comprehend and faster to complete. One pilot participant did not read, or misunderstood, the instructions for Section A and thought he was rating the objectives of CATI, rather the impact the course had on him. Because he completed the questionnaire, his inaccurate responses

would have gone unnoticed without the focus group. There seemed to be a general consensus that the questions in Section B were easy to understand. Only two out of the five pilot participants said they would have completed and mailed in the questionnaire if they had been given it at the end of their course.

Several changes were made to the questionnaire as a result of pilot participants' feedback. Section A was shortened by removing the outcome "sense of responsibility and concern for others" from the top row of the matrix and Section B was shortened by removing two open-ended questions. To make Section A easier to understand, several words were capitalized, bolded, or underlined in the instructions. None of the pilot participants gave a numerical rating in response to the question, "Please rate the impact the course had on your concern for the natural environment, and explain what characteristics of the course caused you to experience this level of impact." As a result, the question was changed to specify that a rating on the scale of -5 to 5 be given. Because the outcome column "sense of responsibility and concern for others" was removed from Section A, an open-ended question on this topic was added in Section B.

Questionnaire Distribution

The questionnaire was distributed to potential members of participant Group 1 with a self-addressed and stamped envelope, a cover letter (Appendix B), and, for those who had not already completed one, a consent form (Appendix C). Approximately 160 OBWC students received a copy of the questionnaire.

Formative Interviews

Formative interviews were conducted with students while they were on their OBWC courses and, therefore, still in the process of forming their views on how their courses were affecting them. The purpose of the formative interviews was to gather detailed information on how various course components were affecting students as they progressed through their courses. Formative interviews were conducted with students on a 17-day 15 and 16-year-old course and with students on a 21-day 17 and 18-year-old course. The interviews were either recorded by tape recorder and transcribed or were recorded through verbatim jotted notes. The formative interview questions are included in appendix F.

Summative Interviews

Summative interviews were conducted with students after they had completed their OBWC courses and, therefore, had the ability to provide a summary of how they felt their courses had affected them. The purpose of the summative interviews was to gather in-depth information from students at a time when they would be able to reflect back with perspective on their entire Outward Bound experience. For this reason, OBWC graduates who had participated in an Outward Bound course prior to 1998 were chosen for the interviews. Two of the graduates interviewed had participated in an OBWC course in 1999, but had also completed at least one other course prior to 1998.

Summative interviews were conducted either by telephone or by e-mail. Telephone interviews with 8 graduates were tape recorded and transcribed for data analysis. E-mail interviews with three graduates were printed for data analysis. The

questions used in both the telephone and email interviews were modified slightly over the course of the interviews to increase clarity but generally followed the format outlined in appendix G.

Observation

On the courses I was instructing, I observed the group discussions and made verbatim jotted notes of the comments of members of Group 2. These notes contributed another source of data on how students were being affected by various aspects of their courses.

Instructor Interviews

The purpose of interviewing OBWC instructors was to get their perspectives on how course outcomes are achieved. Seven instructors were interviewed either in-person or by e-mail. In-person interviews were recorded through verbatim jotted notes, and e-mail interviews were printed for data analysis. Both types of interviews used similar questions, which are outlined in the Instructor Interview Guide (Appendix H).

Data Analysis

The data collected for this case study can be divided into two categories. By far the largest category is the qualitative data that was collected from Section B of the questionnaire, from formative and summative interviews with students, from observations of the group discussions of students, and from interviews with instructors. The second category is the quantitative data that was collected from Section A of the

questionnaire. Both categories of data were used in conjunction to describe the relationships among course components, students' characteristics, and course outcomes, and to interpret how this information can be used to enhance theory, practice, and future research.

Quantitative Data Analysis

As explained in the "Questionnaire" section, the quantitative data collection matrix in Section A of the questionnaire was included both to increase the validity of the study through triangulation and to be tested as a prototype instrument for future research. To meet both of these objectives, the quantitative data were analyzed in several ways.

First, the data from the 81 questionnaires were entered onto an SPSS computer program spreadsheet. Students' responses to each of the 28 course components included in the matrix were entered, as were the gender, age, age group (i.e., 15 and 16-year-olds, 17 and 18-year-olds, 19 to 25-year-olds, 25 to 40-year-olds, and over 40-year-olds), course type, and "population" of each student (i.e., men on public courses, women on public courses, women on Women of Courage courses, youth on public courses, youth on Vista courses).

Second, a number of values were calculated. The "average impact" of each of the 28 course components on the course outcomes of self-concept, motivation, and interpersonal skills was established by calculating the mean of the ratings given by students in the quantitative matrix in Section A of the questionnaire. The "overall impact (of the course) on self-concept" was calculated by finding the mean of the 28 course components' average impact on self-concept. The "overall impact on

motivation” and the “overall impact on interpersonal skills” were determined in similar ways. The “impact (of the course) on concern for others” and the “impact on concern for the environment” were calculated by finding the mean of the ratings given by students in questions three and four of Section B of the questionnaire. The “overall impact of each course component on course outcomes” was determined by calculating the mean of the average impact of that course component on self-concept, on motivation, and on interpersonal skills.

Third, course components were ranked in order of their “average impact” on self-concept, motivation, and interpersonal skills. This information was useful in determining which course components contributed to which positive course outcomes.

Fourth, frequencies were calculated for each course components’ impact on self-concept, motivation, and interpersonal skills. Frequency counts were used to establish the number of students who indicated that a course component had a highly positive impact (+5), no impact (0), or highly negative impact (-5) on their self-concept, motivation, and interpersonal skills. This information was useful in determining which course components contributed to which positive outcomes and which course components negatively affected course outcomes.

Fifth, an independent samples t-test was conducted to compare the overall impact on self-concept, the overall impact on motivation, the overall impact on interpersonal skills, and the overall impact of each of the 28 course components for females and males. Because a large proportion of the females were adults (19 and over) and a large proportion of the males were youths, independent samples t-tests were then conducted for the overall impact on self-concept, the overall impact on motivation, the overall impact on interpersonal skills, and the overall impact of each of

the 28 course components for females and males in each of the five age groups. Although small sample sizes were a limitation, this information was useful in determining whether females and males experienced different outcomes as a result of their courses and whether females and males were affected differently by the various course components.

Sixth, the data were split by gender before one-way analyses of variance were conducted for the overall impact on self-concept, the overall impact on motivation, the overall impact on interpersonal skills, and the overall impact of each of the 28 course components on the five age groups. A Tukey post-hoc comparison was used to establish which age groups were responsible for statistically significant results in the one-way analyses of variance. Again, although limited by small sample sizes, this information was useful in assessing whether the various age groups experienced different outcomes as a result of their courses and whether the age groups were affected differently by the various course components.

Finally, independent samples t-tests were conducted for the overall impact on self-concept, the overall impact on motivation, the overall impact on interpersonal skills, and the overall impact on each of the 28 course components for women on public courses and women on Women of Courage courses, and for youth on public courses and youth on Vista courses. This information was useful in determining whether various populations experienced different outcomes as a result of their courses and whether the population to which a student belongs contributes to determining which course components will affect which course outcomes.

The findings of the quantitative data analysis were compared with those of the qualitative data analysis for triangulation purposes and to test the usefulness of the

instrument. In cases where the quantitative and qualitative findings did not agree, both were given.

Qualitative Data Analysis

The analysis of the qualitative data was conducted in multiple stages. The first stage involved separating the data from Section B of the questionnaire, interviews, and observation notes into “units of information” following Lincoln and Guba’s (1985) guidelines:

First, [a unit] should be heuristic, that is, aimed at some understanding or some action that the inquirer needs to have or to take. Unless it is heuristic it is useless, however intrinsically interesting. Second, it must be the smallest piece of information about something that can stand by itself, that is, it must be interpretable in the absence of any additional information other than a broad understanding of the context in which the inquiry is carried out. (p. 345)

The first stage of data analysis also involved data coding. As Maykut and Morehouse (1994) suggest, a line was drawn between each unit and the location of the unit in the data set was indicated in the left margin. On units of information associated with a particular student, the gender, age, and course type of the student were also included in the left margin. Finally, each unit was coded with the course components and course outcomes it mentioned.

To begin with, the matrix included in Section A of the questionnaire was used to code the units (Appendix A). As previously explained, the categories in this matrix were deductively chosen through a careful review of the related literature. In the analysis of the data, course components listed along the left-hand side of the matrix

were numbered 1 to 28 and course outcomes listed across the top of the matrix were designated with the letters A through C (Table 1). The course outcomes of concern for others and concern for the environment were added to the matrix as letters D and E. In this way, a quotation from a student indicating the importance of the solo to the development of their self-concept would be coded "1-A." As the data were coded, new course components and course outcomes emerged that were not included in the original matrix. These were added to the list of course components as numbers 29 through 45 and to the list of course outcomes as letters F through J.

When a unit of information contained negative comments, it was labeled with an "N." If the unit related to a particular course component, it was also labeled with the number of the course component, the letter of the course outcomes, and an "N" (i.e., 1-A-N). Data that did not contain any references to course components, the characteristics of students, or course outcomes were not coded as units of information and were not included in the qualitative data analysis.

The second stage of analysis included photocopying the data set and dividing it into units of information. Initially, one copy of the entire data set was made. The photocopied data set was then divided into units of information by cutting along the lines drawn to separate the units. The units were sorted into piles depending on the number of codes on each unit. For example, a unit coded with 1-A, 22-B-N, and N would have been placed in the pile of units requiring three copies. Additional copies of the units in the two, three, four, and five copies' piles were then made. Finally, these additional copies were cut into separate units of information.

The third stage of qualitative data analysis involved dividing the units of information into piles based on their coding. In total, 56 piles were made: 45 for

Table 1

Qualitative Data Coding Matrix

CODING MATRIX	Course Outcomes:				
	A	B	C	D	E
	Self-concept (e.g., self- reliance & self- confidence)	Self-motivation (i.e., desire to learn & achieve)	Interpersonal skills (e.g., cooperation & communication)	Concern for others	Concern for the environment
Course Components :					
1. Solo					
2. Service project					
3. Course-end run					
4. The wilderness setting					
5. Being challenged physically					

course components, 1 for negative comments, and 10 for comments that discussed course outcomes “A” through “J,” but did not relate them to specific course components. For example, the three copies of the unit coded with 1-A, 22-B-N, and N would have been placed into the piles for 1 (solo), 22 (reflection), and N (negative comments).

The fourth stage of analysis comprised of sorting each of these 56 piles of units of information into categories, labeling the categories, and organizing them on pages of paper. For example, the 61 units of information in pile number one (solo) were divided into 15 categories according to the content of the units of information. The units were organized on two pages according to categories and the categories were labeled. The title “Solo” was written at the top of both pages. One page was subtitled “Students’ Views of the Positive Impacts of Solo.” The other page was divided by a line, with one side subtitled “Students’ Views of the Negative Impacts of Solo” and the other side subtitled “Instructors’ Views of the Impacts of Solo.” Circles were then drawn around the categories, or clumps of units of information on the same topic, and each category was labeled with a title representative of the content of the units it included. For example, the labels of the categories under “Students’ Views of the Positive Impacts” included “Confidence,” “Reflecting on who they are,” “Processing OB course,” “Realized the importance of solitude,” and so on.

In the fifth stage of qualitative data analysis, the pages were grouped together into piles according to their titles. The following seven groupings emerged from the data: “qualities of course activities,” “specific course activities,” the physical environment,” “instructors,” “the group,” “negative impacts,” and “students’

characteristics.” These groupings were then used as the organizational framework for presenting the findings of the study.

Ethical Guidelines

A number of ethical guidelines were followed throughout this research study. The questionnaire and interviews conducted as part of the study required participants to reflect in ways they might not have otherwise done. Although time consuming, this process was potentially rewarding for participants as it provided opportunities for further insight into their experience at OBWC. I carefully avoided judgmental language and questions in interviews and explained to participants that I was not evaluating their responses. I was prepared to remind participants they could choose not to answer if at any point my interview questions caused them distress, although this was never necessary. The study was explained to all study participants (Appendices B and D) and, whenever possible, participants completed a consent form (Appendices D, E, and I).

Participants were not identified by name in observation or interview notes. While on courses, research data were either on my person or stored with my personal items. Other data were stored in an area inaccessible to others. Original copies of the data will be kept for a minimum of five years.

Assumptions and Limitations

A major assumption of this study was that Outward Bound Western Canada courses can affect students’ self-concept, motivation, interpersonal skills, concern for others, and concern for the environment. This assumption was made because much

research has already determined that adventure education courses can cause these types of positive outcomes. However, it was not assumed that all students are affected in all or any of these ways or that the impact is always positive.

A major limitation of this study was that all of the data collected were self-reported. Data collected from questionnaires, interviews with students and instructors, and the observation of students' discussions provided information on students' and instructors' perceptions of how OBWC course outcomes are achieved. The nature of the topic of this study limited data collection to people's perceptions, as there was not a more objective way of determining how students were affected by various course components. The only portion of the study that could have included non-self-reported data collection was in determining if students' characteristics (i.e., gender, age, population, and expectations) contributed to the outcomes they experienced. Although this was beyond the scope of this study, quantitative pre- and post-course tests could have been done to determine whether students' self-concept, motivation, interpersonal skills, concern for others, and concern for the environment had increased as a result of their course. Statistical tests could have then determined whether there was any correlation between students' characteristics and the course outcomes they experienced.

Another limitation of this study was that most of the data came from students who had recently completed their OBWC course. It is possible that these students may not have had as complete a perspective on how their experience affected them as students who completed their course a year or more ago.

Because of differences between OBWC courses and those of other Outward Bound schools and adventure education programs, the findings of the study can not be

generalized beyond OBWC courses. Despite this limitation, the findings may be useful to other organizations in their understanding of how they can make their own courses more effective.

Finally, the study was limited to only researching the effects of those course characteristics that are currently part of the OBWC course curriculum. It was not possible to add other course components as this might have compromised course quality or safety.

CHAPTER FOUR: RESULTS

Findings

Previous research studies have indicated that students experience a variety of outcomes as a result of participating in Outward Bound courses. These outcomes have been found to include increased self-awareness, self-confidence, motivation, interpersonal skills, concern for others, and concern for the environment (e.g., Gillet et al., 1991; Hattie et al., 1997). To determine how these types of outcomes are achieved on Outward Bound Western Canada (OBWC) courses, this study explored the relationships among course components, the characteristics of students, and course outcomes.

This chapter will report findings relating to the following four questions:

1. Which course components contributed to which positive course outcomes?
2. Which course components negatively affected course outcomes?
3. How did the characteristics of students influence course outcomes?
4. How did the characteristics of students influence the impact that various course components had on course outcomes?

Course Components that Contributed to Positive Course Outcomes

To gain a better understanding of how OBWC course outcomes were achieved, it was necessary to identify which course components contributed to which positive course outcomes. Both quantitative and qualitative data were gathered to aid in identifying the relationships between course components and course outcomes.

Quantitative data were collected via a questionnaire that was distributed to students at the end of their OBWC course (Appendix A). The questionnaire contained a quantitative matrix that listed 28 potential course components and asked students to rate the impact of those components on their self-concept, motivation, and interpersonal skills using a scale of -5 (highly negative impact) to +5 (highly positive impact). There were 81 completed questionnaires returned and used in the quantitative data analysis.

The 28 course components listed in the questionnaire were ranked according to their mean impact on self-concept, motivation, and interpersonal skills (Tables 2, 3, and 4). These rankings demonstrate the relative impact that each of the course components included in the analysis had on these three course outcomes. Frequency counts were also run for each of the 28 course components. For each course component discussed, the number of students who felt that course component had no impact on them (0 on the -5 to +5 scale) and the number who felt it had a highly positive impact on them (+5) are included.

Qualitative data were also collected in order to inductively discover which course components were contributing to which course outcomes. These data were gathered through open-ended questions on the questionnaire, through interviews, and through observation.

The combination of quantitative and qualitative data enables comparison and triangulation of the findings. In many cases the quantitative and various qualitative sources agree, and in doing so, verify the accuracy of the findings.

This section is divided into the following five groupings of course components that emerged through data analysis as contributing to positive course

Table 2

Average Impact of Course Components on Self-concept

<u>Rank</u>	<u>Course Component</u>	<u>M</u>	<u>N</u>	<u>SD</u>
1	Achieving individual success	4.52	81	.79
2	Being physically challenged	4.43	80	.90
3	Taking responsibility for yourself	4.27	81	1.27
4	Learning new skills	4.17	80	1.21
5	Setting and achieving goals	4.17	81	1.27
6	Having leadership responsibilities	4.04	78	1.27
7	Instructors' feedback	3.89	80	1.36
8	Adapting to an unfamiliar environment	3.86	80	1.33
9	Trying out new behaviors	3.84	74	1.51
10	The wilderness setting	3.84	80	1.60
11	Instructors as role models	3.70	80	1.77
12	Choosing level of involvement in activities	3.67	79	1.49
13	Instructors' personalities	3.60	80	1.59
14	Solo	3.56	81	1.37
15	Achieving group success	3.55	77	1.46
16	Relationships with other group members	3.53	81	1.61
17	Reflection	3.51	81	1.82
18	Instructors' expectations	3.42	81	1.84
19	Course-end run	3.21	77	2.01
20	Problem solving as a group	3.17	77	1.33
21	Informal conversations	2.95	81	1.87
22	Being scared before or During activities	2.87	77	2.35
23	Service project	2.82	55	1.69
24	Attitudes of other group members	2.70	81	2.00
25	Structured discussions/debriefings	2.54	81	1.82
26	Relying on other group members	2.53	81	1.87
27	Talking about home during the course	1.84	79	2.30
28	Failing to achieve success	.33	66	2.29

Table 3

Average Impact of Course Components on Motivation

Rank	Course Component	<u>M</u>	<u>N</u>	<u>SD</u>
1	Achieving individual success	4.40	81	1.00
2	Learning new skills	4.28	80	1.16
3	Instructors' personalities	4.21	80	1.14
4	Instructors as role models	4.20	80	1.31
5	Being challenged physically	4.13	80	1.11
6	Instructors' feedback	4.09	80	1.07
7	Having leadership responsibilities	3.95	78	1.44
8	Taking responsibility for yourself	3.93*	81	1.56
8	Adapting to an unfamiliar environment	3.93*	80	1.25
10	The wilderness setting	3.91	80	1.60
11	Choosing level of involvement in activities	3.63	79	1.67
12	Instructors' expectations	3.62	81	1.74
13	Achieving group success	3.58	77	1.48
14	Setting and achieving goals	3.47	81	1.67
15	Trying out new behaviors	3.42	74	1.79
16	Reflection	3.37	81	1.98
17	Course-end run	3.19	77	1.67
18	Problem solving as a group	3.16	77	1.64
19	Relationships with other group members	3.15	81	1.86
20	Solo	3.10	81	1.69
21	Structured discussions/debriefings	2.84	81	1.76
22	Being scared before of during activities	2.79	77	2.33
23	Attitudes of other group members	2.75	81	1.97
24	Service project	2.73	55	1.64
25	Informal conversations	2.72	81	1.93
26	Relying on other group members	2.58	81	1.92
27	Talking about home during the course	1.86	79	2.46
28	Failing to achieve success	1.52	66	2.46

* Denotes a tie

Table 4

Average Impact of Course Components on Interpersonal Skills

Rank	Course Component	<u>M</u>	<u>N</u>	<u>SD</u>
1	Problem solving as a group	4.14	77	1.01
2	Achieving group success	4.08	77	1.27
3	Having leadership responsibilities	3.94	78	1.29
4	Relationships with other group members	3.90	81	1.63
5	Instructors' personalities	3.84	80	1.55
6	Relying on other group members	3.80	81	1.54
7	Instructors as role models	3.66	80	1.76
8	Adapting to an unfamiliar environment	3.55	80	1.59
9	Service project	3.51	55	1.60
10	Instructors' feedback	3.50	81	2.03
11	Setting and achieving goals	3.47	81	1.67
12	The wilderness setting	3.43	80	1.81
13	Informal conversations	3.41	81	1.86
14	Trying out new behaviors	3.38	74	1.94
15	Being challenged physically	3.34	80	1.76
16	Learning new skills	3.28	80	1.73
17	Choosing level of involvement	3.23	79	2.01
18	Instructors' expectations	3.16	81	2.03
19	Taking responsibility for yourself	3.12	81	1.85
20	Attitudes of other group members	3.11	81	2.07
21	Achieving individual success	2.96	81	2.12
22	Structured discussions/debriefings	2.85	81	1.65
23	Being scared before or during activities	2.55	77	2.23
24	Talking about home during the course	2.16*	79	1.65
24	Reflection	2.16*	81	2.15
26	Course-end run	1.71	77	2.11
27	Solo	1.54	81	1.90
28	Failing to achieve success	1.39	66	2.53

* Denotes a tie

outcomes: (i) qualities of course activities, (ii) specific course activities, (iii) the physical environment, (iv) instructors, and (v) the group. It should be noted that course length was also mentioned by several instructors as influencing course outcomes. However, in order to be able to generalize the findings to all OBWC courses, the study focused on those course components that are included in most OBWC courses. As a result, the influence of course length on course outcomes was outside the scope of the study.

The five groupings of course components that were found to influence course outcomes are discussed in an order roughly representative of their relative impact on course outcomes. Within each grouping the course components are listed in approximately the order of their impact on course outcomes. For each course component, the data are discussed in the order of impact on self-concept, on motivation, on interpersonal skills, on concern for others, on concern for the environment, and others.

Qualities of Activities and Positive Course Outcomes

A number of course components that were found to influence course outcomes can be grouped together as qualities of course activities. These qualities include achieving success, challenge, learning new skills, being responsible for oneself, and having fun.

Achieving success.

Three course components relating to achieving success were included in the quantitative analysis: achieving individual success, setting and achieving goals, and

achieving group success. Although all three ranked high in their impact on at least one of the three course outcomes tested (Tables 2, 3, and 4), there were no qualitative data relating to setting and achieving goals or achieving group success. For this reason, findings are reported only for achieving success as an individual.

According to both the quantitative and qualitative data sets, achieving individual success is one of the qualities of OBWC course activities that has the greatest impact on course outcomes. Of the 28 course components included in the quantitative data set, achieving individual success was ranked as having the greatest impact on self-concept ($M=4.52$, $SD=.79$) (Table 2) and motivation ($M=4.40$, $SD=1.00$) (Table 3). It ranked 21 out of 28 components in its impact on interpersonal skills ($M=2.96$, $SD=2.12$) (Table 4). Frequency counts indicated that out of 81 students, achieving individual success had no impact (0) on the motivation of one student and on the interpersonal skills of 17 students. Achieving individual success was found to have a highly positive impact (+5) on the self-concept of 44 students, on the motivation of 52 students, and on the interpersonal skills of 26 students.

In their qualitative comments, many students linked successful experiences with increased self-confidence. Although these experiences often took place with other group members, it was almost always their own success that students mentioned, rather than the success of the group as a whole. There were a number of comments (12) from students alluding to how completing the course or completing aspects of the course had positively affected them. For example, one 16-year-old male shared the following comments with his group at the end of their course: “This has been one of the greatest experiences of my life. I’ve done things like this before and I usually get kicked out. It’s the first time I’ve ever finished something like this.” Another student,

a 54-year-old female graduate from 1992, explained in an interview that “there were a couple of times on the course that I was made to face my fears and actually did it. I came out of the course knowing that when faced with something that seems terrifying, I can overcome it.” A 44-year-old Women of Courage student wrote, “Doing the things I thought I was not capable of helped to completely turn around my self-image from one of dependent, weak and male dominated to one of increasing independence, self-reliance and strength.”

A large number of other comments (34) from students specify the type of successes that led to increased feelings of capability and confidence, such as overcoming challenge (15), backpacking/mountaineering (8), rock climbing (5), the course-end run (4), and leading others (2). A 23-year-old male Vista graduate said, “We had a pretty vertical climb. We pushed on and made it. That’s where all the reward comes from I guess. [I learned] just what I’m physically and mentally capable of doing.” A 36-year-old female student wrote, “The rock climb had a very large impact on me. I not only conquered my fears, but was able to do something most of the others couldn’t. My small stature didn’t matter here. It boosted my self-confidence immensely.”

A number of comments from instructors support the idea that achieving success as an individual is one of the components of OBWC courses that has the greatest impact on students’ self-confidence. In responding to a question about the potential impact of OBWC courses, one instructor explained, “The individual becomes more confident about what they are able to do. They have a successful experience which can act as a framework for facing and overcoming future challenges.” Another instructor made the following observation of a 16-year-old female student: “She was

very, very proud of herself. She said, ‘I can’t wait to tell my family about climbing this mountain.’ She was so happy. A couple of times she said, ‘I can’t believe I did it. I climbed up this mountain.’ ”

Challenge.

Challenge also emerged as a quality of OBWC course activities that plays a large role in determining the outcomes that students experience as a result of their courses. In the quantitative data, being challenged physically ranked 2 out of 28 for impact on self-concept ($M=4.43$, $SD=.90$) (Table 2); 5 out of 28 for impact on motivation ($M=4.13$, $SD=1.11$) (Table 3); and 15 out of 28 for impact on interpersonal skills ($M=3.34$, $SD=1.76$) (Table 4). Frequency counts indicated that out of 80 students, being challenged physically had no impact (0) on the self-concept of one student, on the motivation of one student, and on the interpersonal skills of 10 students. Being challenged physically was found to have a highly positive impact (+5) on the self-concept of 48 students, on the motivation of 40 students, and on the interpersonal skills of 28 students.

The qualitative data supplied by students supports these quantitative findings. Students linked overcoming a variety of physical, mental, and emotional challenges with personal growth. These challenges included backpacking/mountaineering (16), discomfort (5), fear of heights (4), fear of the wilderness (2), and interacting with other group members (31). Overcoming challenge was the most commonly listed means of experiencing individual success on OBWC courses, and therefore some of the resulting outcomes students mentioned are the same as those described in the last section. Several students (5) expressed feeling that their self-respect, self-reliance, or

self-confidence had increased as a result of being challenged while on their course. Others (14) were more specific and explained how being challenged had given them greater confidence in their abilities and had taught them how to push through difficulties. A 54-year-old female graduate from 1992 explained,

A couple of weeks ago I was in emergency surgery and I actually thought about the course. I thought, remember those days when you thought you couldn't take another step? I did. It's something that I think subconsciously may give some strength when you need it. But that was one time when I consciously thought, yes I can do this. So, even six years later, and hopefully a lot longer, it is something that I seem to be drawing on.

A 36-year-old male student wrote, "The sheer physical and mental challenge of the course - climbing with huge packs on, wet and frozen feet, constantly trying new things - gave me a feeling that I could withstand anything. Sort of a superman feeling."

A few students were more explicit in linking challenges with increased motivation. A 31-year-old female graduate from 1993 wrote that her course allowed her to "challenge myself beyond my perceived limits. When I returned home I realized that I was capable of doing much more than I had given myself credit for and pushed myself in the day-to-day aspects of my life."

A number of students (5) implied that the challenges involved in interacting with other group members had developed their interpersonal skills. A 36-year-old female student explained, "I do wish I might have got along with one of my mates a little better, but I'm trying to understand that person better. I learned more tolerance, patience and acceptance of others and myself."

One instructor suggested that providing students with a variety of challenges is critical in ensuring that courses are maximally effective. He explained,

Every course should challenge every student in all possible arenas – physical, mental, emotional...adaptations might need to be made depending on the type of course in order to meet the different needs of students. I think there should be more of a willingness for instructors to offer to all students the physical challenge that they need. Therefore, if some want to push really hard and some don't, the instructors should divide the group some of the time. I don't think it is appropriate to try and substitute one kind of challenge for another.

Learning new skills.

The quantitative and qualitative data both indicated that learning new skills is a quality of OBWC course activities that contributes to positive course outcomes. In the quantitative data, learning new skills ranked 4 out of 28 for impact on self-concept ($M=4.17$, $SD=1.21$) (Table 2); 2 out of 28 for impact on motivation ($M=4.28$, $SD=1.16$) (Table 3); and 16 out of 28 for impact on interpersonal skills ($M=3.28$, $SD=1.73$) (Table 4). Frequency counts indicated that out of 80 students, learning new skills had no impact (0) on the self-concept of one student, on the motivation of 2 students, and on the interpersonal skills of 10 students. Learning new skills was found to have a highly positive impact on the self-concept of 44 students, on the motivation of 50 students, and on the interpersonal skills of 28 students.

Although learning new skills was listed by 10 students as being the part of their course that had the “strongest positive impact” on them, in total there were only 12 comments relating to learning new skills and none from graduates. Half of these

comments relate learning new skills to increased confidence and self-reliance. These comments suggest that learning new skills is often a “challenge” for students and is another means of “achieving individual success.” A 31-year-old female student wrote, “Learning new skills in a positive environment had the strongest positive impact on me. It helped me to gain confidence and rely upon myself.”

The other six comments linked learning new skills with the outcome of an increased skill level or the development of a new pastime. One 21-year-old female student wrote that snow school affected her because it made her want “to do more with it. I felt propelled to learn more and practice. This was also the first time in my life I was taught to respect snow and not always believe it’s safe.”

Instructors also commented on the potential impact of learning new skills. One instructor wrote, “The students get taught certain skills that they then have to apply to a number of different situations which involve progressively more autonomy. In this way they learn to overcome the various challenges of the course and internalize the learnings which range from map reading to conflict resolution.”

Being responsible for oneself.

According to the quantitative and qualitative data, being responsible for oneself is an important quality of OBWC course activities. In the quantitative data, taking responsibility for oneself ranked 3 out of 28 for impact on self-concept ($M=4.27$, $SD=1.27$) (Table 2); 8 out of 28 for impact on motivation ($M=3.93$, $SD=1.56$) (Table 3); and 19 out of 28 for impact on interpersonal skills ($M=3.12$, $SD=1.85$) (Table 4). Frequency counts indicated that out of 81 students, taking responsibility for oneself had no impact (0) on the self-concept of 4 students, on the motivation of 8 students,

and on the interpersonal skills of 14 students. Taking responsibility for oneself was found to have a highly positive impact (+5) on the self-concept of 50 students, on the motivation of 43 students, and on the interpersonal skills of 28 students.

In the qualitative data, 12 students discussed having to be responsible for themselves by keeping clothes and equipment organized, knowing when to put more clothes on, completing tasks on their own, and knowing when to ask for help. The outcomes attributed to being responsible for oneself included being more self-disciplined (1), better organized (1), more self-reliant (1), and more responsible for oneself at home (5). A 19-year-old male student explained that “the strongest positive impact on me was that I had to do many things on my own, and I will be able to take those memories home with me to do many things at home on my own that I haven’t done before.”

Having fun.

A number of students and instructors indicated that having fun is a quality of course activities that indirectly contributes to course outcomes. In the quantitative data, one student added and rated “having fun” as a course component, while another added “humor.” The qualitative comments of students suggest that having fun increases students’ interest and motivation in other aspects of their course. One 15-year-old male student wrote, “I think that the aspect which had the most positive impact was the friendships I made here. I was always having fun which kept me motivated and my confidence high.”

Several instructors also discussed the role having fun plays in helping students achieve outcomes. One instructor explained that from a student's perspective, "if things are fun and interesting, you're motivated to do it more."

Specific Activities and Positive Course Outcomes

A number of course components that were found to influence course outcomes are specific activities that are included on OBWC courses. These activities include backpacking/mountaineering, the solo, rock climbing, having leadership responsibilities, camp set-up and cooking, the course-end run, group discussions, games and initiative activities, the service project, and the final expedition.

Backpacking/mountaineering.

A large portion of the waking hours on an OBWC course are spent backpacking or mountaineering. Because the distinction between these two activities is often fuzzy on OBWC courses, backpacking and mountaineering were considered a single activity for the purposes of this analysis. Both the quantitative and qualitative data indicated that the activity of backpacking/mountaineering contributes to course outcomes.

Although backpacking and mountaineering were not included as course components in the quantitative portion of the questionnaire, a number of their attributes were. Backpacking and mountaineering were most frequently cited in the qualitative data as the experiences that enabled students to "achieve individual success," "be challenged physically," and "learn new skills." These three components

ranked in the top 5 out of 28 course components for their impact on both self-concept and motivation in the quantitative results (Tables 2 and 3).

Because backpacking and mountaineering were often listed in the qualitative data as the activities that enabled students to experience individual success, overcome challenges, and learn new skills, in many cases the outcomes are identical to those discussed in the respective sections. Students' comments indicated that backpacking/mountaineering increased their self-awareness (3), self-confidence (10), interpersonal skills (1), or just made them feel good (7). A 23-year-old male Vista graduate explained, "The actual mountaineering helped build the confidence because you actually go up and you test yourself – there's areas you don't think that you could probably do, that we end up doing anyway. And you find out about yourself." A 35-year-old female student wrote, "I loved mountaineering - hard challenging work - backpacking too, but the remoteness and spectacular and magnificent views make it all worthwhile. Convinced me that I can survive in the wilderness, I can do it!, anything!"

A number of students' comments (11) relate to climbing peaks, suggesting that this mountaineering/backpacking activity is particularly linked to course outcomes. In writing about that the aspect of the course that had the strongest positive impact on her, a 29-year-old Women of Courage student wrote, "The summit of Locomotive. I did it. We all did it. A miracle. From camp I thought 'Yeah right, sure we're going up there.' And then there we were up there. Truly a surreal moment in my life." A 15-year-old male student wrote that the strongest positive impact on him was "climbing to the peaks of mountains because you feel very proud of yourself after." A 35-year-old female 1997 graduate explained,

We went and climbed this one peak above our campsite and then came back and we bum slid all the way down the side of the mountain, screaming all the way down 'cause it was really fast. It took us two hours to get up there and get to the top, and it was windy like you wouldn't believe. You could lean into the wind and you wouldn't fall over. But coming down we just slid all the way down and it was just the biggest rush. Every time there was a chance to climb something I went up it – it was really great.

Several instructors commented on the relationships between backpacking/mountaineering and course outcomes. One instructor wrote, “This is sort of the meat and the potatoes of the course. It serves as the *raison d'être* for the course components and serves as the metaphor for ‘real life’ challenges.” Another instructor wrote that backpacking/mountaineering is the “most direct means by which students confront their preconceived limitations and then overcome them. Most of the physical challenges arise out of this aspect of the course, as do almost all of the naturally occurring group decision processes, group conflict, etc.”

Solo.

Almost all OBWC courses include a one-, two-, or three-day solo. The solo involves each student being allocated a small piece of wilderness out of sight of other people and where they spend the duration of their solo sleeping, thinking, writing in their journal, and so on. According to the quantitative and qualitative data, the solo has a substantial impact on course outcomes. There were more qualitative comments about the solo than about any other course activity, although in the quantitative results

the solo ranked below a number of other course components in impact on self-concept, motivation, and interpersonal skills.

In the quantitative data, the solo ranked 14 out of 28 for impact on self-concept ($M=3.56$, $SD=1.37$) (Table 2); 20 out of 28 for impact on motivation ($M=3.10$, $SD=1.69$) (Table 3); and 27 out of 28 for impact on interpersonal skills ($M=1.54$, $SD=1.90$) (Table 4). Frequency counts indicated that out of 81 students, the solo had no impact (0) on the self-concept of 2 students, on the motivation of 9 students, and on the interpersonal skills of 37 students. The solo was found to have a highly positive impact (+5) on the self-concept of 24 students, on the motivation of 21 students, and on the interpersonal skills of 10 students.

There were 45 qualitative comments in which students discussed the positive impact their solo had on them. In a large number of these comments, students explain that the solo increased their self-awareness by forcing them to be alone with their thoughts, and in some cases, that this resulted in increased motivation. Students reported gaining a better understanding of themselves as people (8), gaining a greater appreciation of their lives at home (4), and reflecting on their goals for the future and feeling motivated to realize these goals (15). A 16-year-old male student wrote that solo had the strongest positive impact on him because “it made me slow down, think, reflect, and helped me understand myself.” An 18-year-old male student wrote, “Solo made me think of who I am and what can I change about myself in a positive way. It got me into the habit of journal writing.” A 31-year-old female graduate from 1993 wrote, “The solo – a highlight for me – allowed me personal time to sort through emotions brought on by my recent divorce. It also gave me time to reflect on my life’s successes and new goals.”

An 18-year-old female graduate from 1995 explained the role her solo played in the development of her self-awareness and appreciation of her family:

I was forced to go to Outward Bound by my parents because we were having such problems. Sitting in the solo I had to be very up front with myself. I wrote letters to my parents and to the people I thought I'd hurt in my life and I got to connect with people that I maybe wouldn't have had the chance to if I'd just spent my summer beside a pool somewhere. When you're all alone you are forced to think a little more and think a little harder about things. It definitely helped my relationship with my parents when I came back and I had changed. It was in a very real spot, a very real emotion, to be alone and totally out of it."

Making it through the solo was described by several students (8) as having a positive impact on their self-confidence and self-reliance. A 30-year-old male student said, "I made it through living on my own in an environment I'm unfamiliar with, and I really feel quite proud." A 34-year-old Woman of Courage student wrote, "Solo made me rely on myself – my knowledge, skills, and ability to care for myself. I felt strong, confident, and independent. And I felt a deep calm inside me that I haven't felt before when I've been in the wilderness."

Several others (4) explained how the solo had helped them realize the importance of time to themselves. A 45-year-old female graduate from 1995 said, "I learned how much I like solitude. We did a two-night solo and I loved it. I realized there's a lot of value to just standing still. I guess it gives you perspective – that's the word I'm looking for." A 23-year-old male Vista graduate explained, "[Solo] showed me how important time by myself is. We had a whole day to sit there and just think to

ourselves about everything. It kind of lets you relax a bit more and be at ease with the mind.”

A few comments (4) suggest that the solo may also indirectly influence course outcomes by giving students an opportunity to process their Outward Bound experience. One 30-year-old Woman of Courage student wrote, “The solo was an amazing experience! It gave me time away from regular day-to-day life to find out new things about myself. It also gave me time to process my Outward Bound experience! Impossible to re-capture this unbelievable experience.” A 38-year-old male student responded to a question about what aspect of the course had had the strongest positive impact on him with, “I’d have to say the solo experience. Reflecting on everything that had been achieved so far and knowing I could complete the course.”

A few instructors commented on the role that the solo can play in determining course outcomes. One instructor wrote, “The solo can be very hit or miss. It can force self-reflection and serious contemplation in some students which leads to personal growth and a better understanding of self and others.” Another instructor explained, “The reflection time is very valuable for goal setting and confidence building. The solo is also very important in developing bonds in the group. The group only appreciates how important each member is when they are alone.” A third instructor wrote, “[Solo] is a time for reflection. Students need a chance to quiet their minds and re-evaluate their positions in the group. Students often seem to come away from the solo with a renewed sense of purpose that translates into improved behavior.”

Rock climbing.

The quantitative and qualitative data suggest that rock climbing contributes to a variety of positive course outcomes. Although no quantitative data were collected specifically on rock climbing, like backpacking/mountaineering, it is an activity that enables students to achieve individual success, be physically challenged, and learn new skills. These are three of the five course components with the highest rankings for impact on self-concept and motivation (Tables 2 and 3).

In the qualitative data set there were 18 comments regarding the relationships between rock climbing and positive course outcomes. The largest proportion of these comments (8) focused around increases to students' self-confidence. One 35-year-old female student wrote, "I am so afraid of heights, and the fact that I was finally able to climb a rock on belay was exhilarating. To be able to look down has quite honestly taken me across a bridge (metaphorically speaking)." A 28-year-old Woman of Courage student explained that the rock climbing was one of the activities that had the strongest positive impact on her. She wrote, "I had doubts about being able to complete [the rock climbing], but trying and then succeeding made me realize it's all about mental attitude. We can do so much if we believe we can."

Several other students (3) linked rock climbing with developing trust in others. In talking about rock climbing, a 45-year-old female graduate from 1995 said,

To me, rock climbing has nothing to do with physical danger – it has everything to do with facing your fear and letting go. And putting your trust in somebody else. In our society we don't trust each other very often and we sure as hell don't want to let go for something that's risky. So for me, that's the value of rock climbing – I love it."

For a few students (3), their OBWC rock climbing experience resulted in the development of rock climbing as a new pastime. In talking about rock climbing one 18-year-old female 1995 graduate said, “That was probably the highlight of the entire [course] for me. I just absolutely adored it. It was a really great time and I’ve done rock climbing since because of that. It’s probably one of my favorite sports to do.”

Several instructors commented on the relationships between rock climbing and course outcomes. One instructor wrote, “[Rock climbing] is a confidence builder and is great for developing group compassion. The group often gets a better high from the achievement of the most challenged member than from the successes of the least challenged.” Another instructor explained, “Rock climbing enables instructors to challenge students differently, which is good. In addition, it is a good break from the rest of the course. It is also fun and is another set of skills which could be transferred to the students.” A third instructor commented, “Rock climbing is for many students ‘the ultimate challenge’ – they must use all of their resources, confidence, physical strength, etc., to overcome the climb. I feel that it serves as a benchmark/culminating activity for many of them.”

Leadership responsibilities.

On many OBWC courses students take on leadership responsibilities such as facilitating group decisions, leading the group on a hike, or being the designated leader of the day. Both the quantitative and qualitative data sets indicated that having leadership responsibilities is an activity that causes students to experience a variety of positive course outcomes.

In the quantitative data, having leadership responsibilities ranked 6 out of 28 for impact on self-concept ($M=4.04$, $SD=1.27$) (Table 2); 7 out of 28 for impact on motivation ($M=3.95$, $SD=1.44$) (Table 3); and 3 out of 28 for impact on interpersonal skills ($M=3.94$, $SD=1.29$) (Table 4). It is one of a few course components that ranked high in all three domains. Frequency counts indicated that out of 78 students, having leadership responsibilities had no impact (0) on the self-concept of 4 students, on the motivation of 5 students, and on the interpersonal skills of 3 students. Having leadership responsibilities was found to have a highly positive impact (+5) on the self-concept of 36 students, on the motivation of 39 students, and on the interpersonal skills of 35 students.

The qualitative data suggest that having leadership responsibilities can affect students' self-awareness (1), self-confidence (5), and self-reliance (1). A 54-year-old male graduate from 1995 explained,

I'm the kind of guy that gets into a group and gets things organized. My wife and a good family friend of mine have said that's something that sort of bugs them. It made me stop when I was on Outward Bound and actually lay that leadership role down. But I found out later that I am a leader and that's just the way it's going to be. So I came to grips with the idea that I do take on leadership roles.

A 31-year-old female student wrote, "[Leading the group] helped me to gain confidence and rely upon myself."

A few students (3) mentioned that having leadership responsibilities helped them develop their leadership skills. A 30-year-old male graduate from 1995 said, "The idea that I had it in me to take charge of a situation and people would respect my

decision and agree with it for the most part. That's something that I never really thought about as a characteristic of myself." A 21-year-old male graduate from 1995 explained, "Our group had a lot of trouble developing and there were a lot of conflicting personalities. I think that helped me learn to take on the role of mediator and stuff like that. Qualities that have come in very useful."

A number of other students (4) commented that having leadership responsibilities increased their concern for others. One 15-year-old male student said, "When you are put in the leadership position of the group, you feel responsible for everyone's safety and take all potential safety measures." Another 22-year-old male Vista student explained, "Because the course I'm on is a leadership course I learned to think of the greater good of the group."

Camp set-up and cooking.

The daily course activities of camp set-up and cooking were not included as course components in the quantitative data collection. However, these activities were mentioned by a number of students (10) in the qualitative data. A few students suggested that camp set-up/cooking had positively affected their self-confidence. One 36-year-old Woman of Courage student wrote, "Climbing the mountain and setting up: both of these I kept thinking I couldn't do it anymore and amazingly I could." Another 36-year-old female student wrote that "being able to carry the pack and assume and organize some of the responsibilities required when camping in a group" had the strongest positive impact on her.

A number of students (8) commented that camp set-up and cooking had caused them to have a greater concern for other people. One 15-year-old female student

wrote, “This course makes you aware of the effect that your actions and responsibilities have on those around you. The everyday cooking, setting camp, and working together are the parts of the course that really impact this area.” A 16-year-old male student explained,

Last night I was putting some water on and I thought, ‘holy crap – I was helping out!’ At home I don’t usually do a lot of the cooking. It sort of affected me to think that as a group we have to work together to find what everyone wants. I think that’s thinking about people more, I guess.

Course-end run.

Another activity included at the end of most OBWC courses is a 10-kilometre run. Both the quantitative and qualitative data indicated that the course-end run contributes to positive course outcomes. In the quantitative data, the course-end run ranked 19 out of 28 for impact on self-concept ($M=3.21$, $SD=2.01$) (Table 2); 17 out of 28 for impact on motivation ($M=3.19$, $SD=1.67$) (Table 3); and 26 out of 28 for impact on interpersonal skills ($M=1.71$, $SD=2.11$) (Table 4). Frequency counts indicated that the course-end run had no impact (0) on the self-concept of 8 students, on the motivation of 10 students, and on the interpersonal skills of 35 students. The run was found to have a highly positive impact (+5) on the self-concept of 29 students, on the motivation of 21 students, and on the interpersonal skills of 11 students.

The qualitative responses ranged from graduates who commented that the run had no lasting impact on them (2), to those who thought the run had a positive impact on them (11). The majority of the positive comments suggested that the run increased students’ confidence in their physical fitness. One 37-year-old female student wrote,

“I proved to myself that I am physically fit and that I do have physical stamina and endurance. Especially finishing the 10 k run on the last morning – I was tired, but forced myself to run and I did it!” Another student, a 35-year-old female, wrote about the course-end run, ‘Euphoria! Convinced me that I have tons of stamina!’” In talking about the course-end run a 31-year-old female graduate explained,

It was incredibly freeing moving without a pack on. As well, the fitness I had gained on the course came through on that run. It was a time of camaraderie with my other group members, as those of us who were runners encouraged those who weren't. A great way to end the course.

A few other students (2) discussed how the run had helped them realize that they could accomplish what they set their minds on. A 54-year-old female graduate explained, “I find it very difficult to run actually. So that was just one more thing I did that I don't feel I do very well. Which is one more thing to make me realize that yes, you can do it.” In talking about the course-end run a 28-year-old Woman of Courage student wrote, “Trying and then succeeding made me realize it's all about mental attitude. We can do so much if we believe we can or even if we just try anyway.”

A number of instructors commented on the course-end run and its direct and indirect effects on course outcomes. Two instructors expressed doubts about the effectiveness of the course-end run. One said, “I don't understand the course-end run. I think it's a throw back to the old physical fitness Outward Bound thing. And yet, a lot of students say, ‘wow, I never thought I could do it.’ It's a pretty hit or miss thing.” Another instructor explained that the run “is a tool that serves as a marker and an end point, and also leaves the group with an appreciation of the physical changes that have taken place during the course.” A third instructor commented that the course-end run

facilitates the processing and transference of learning that students have achieved during their course. He explained,

A number of people think [the run] is an important bridging activity for the students. If framed properly I think it can have an impact, but I do not know why. I think that it may allow students to recognize some of the differences that have occurred in them during the course. In addition, I think that the nature of the course and its timing allow students to reflect and to put the meaning they want on the last activity of their experience.

Group discussions.

Most days on OBWC courses include structured group discussions. These are usually facilitated by the instructors and used for a variety of purposes, including “framing” or “debriefing” the activities of the day, talking about how the group is interacting, discussing personal goals for the remainder of the course, or considering what impact the course is having on people.

The quantitative and qualitative data indicated that structured group discussions have minor direct impacts on positive course outcomes and indirectly increase the overall effectiveness of courses. In the quantitative questionnaire responses, structured discussions/debriefings ranked 25 out of 28 for impact on self-concept ($M=2.54$, $SD=1.82$) (Table 2); 21 out of 28 for impact on motivation ($M=2.84$, $SD=1.76$) (Table 3); and 22 out of 28 for impact on interpersonal skills ($M=2.85$, $SD=1.65$) (Table 4). Frequency counts indicated that out of 81 students, structured discussions/debriefings had no impact (0) on the self-concept of 20 students, on the motivation of 13 students, and on the interpersonal skills of 13 students. Structured discussions/debriefings were

found to have a highly positive impact (+5) on the self-concept of 13 students, on the motivation of 18 students, and on the interpersonal skills of 13 students.

In the qualitative data, 4 students indicated that structured group discussions had an effect on their self-awareness or self-confidence. A 27-year-old female student wrote, “The structured discussions helped me look at who I am.” A 45-year-old female graduate from 1995 explained, “I think that group discussions allowed us to examine what we were going through and say it publicly.” A 44-year-old Woman of Courage student wrote, “I found that communication within a group setting was at first detrimental to my self-concept because my self-image was so negative. By the end of the course, having improved my self-image, the group discussions had a more positive effect on me!”

The comments of a number of students (7) indicated that structured group discussions may indirectly affect course outcomes by facilitating communication within the group. An 18-year-old female graduate from 1995 said, “[Group discussions] helped sort out certain problems that we had and made us more aware of the problems that we didn’t know were there.” A 31-year-old female graduate from 1993 said, “Group discussions allowed me to feel less alone in my feelings of fatigue, frustration, challenges, and success.”

One instructor explained his view that group discussions enable students to express themselves in a “public forum,” thereby gaining a greater appreciation of themselves and others. He wrote,

Diverse challenges must be combined with group discussions so as to ensure that students can interact at the most fundamentally human of levels. This combination will create a public forum and will allow students to appreciate

themselves and others more. [Group discussions] enable students to make their individuality manifest to the other students. This can then lead to self-discovery, self-esteem or confidence, and disclosure of personal issues.

Three instructors discussed the role group discussions can play in developing students' interpersonal skills. One instructor said, "The debrief can be used to solve problems, foster open communication, and develop social skills." Another instructor commented, "[Group discussions] are necessary for reflection and evaluation. Students are not used to hashing out social issues and the experience is essential as a feedback tool, as a trouble-shooter, and as a learning resource for students as they develop personally."

Games and initiative activities.

Some instructors use games and initiative activities to help students get to know each other better and develop their teamwork skills. The data indicated that these activities contribute directly and indirectly to positive course outcomes in some students. No quantitative data were gathered on the impact of games and initiative activities. The only students who made pertinent qualitative comments were the graduates who were asked a question specifically about these activities.

A number of graduates (8) suggested that games and initiative activities had positively affected their interpersonal skills. They described the activities as providing opportunities to get to know each other better, to develop their teamwork skills, and to become more accepting of others' ways of doing things. An 18-year-old female graduate from 1995 explained, "I'm normally a very shy person and I guess it was

needed to help me sort of get out there and talk to people. It's not really that bad once you realize that everyone is sort of feeling the same way."

Several other graduates (4) could not remember doing any games or initiative activities and a few others (2) did not like them. A 54-year-old female graduate from 1992 explained she found games and initiative activities "a little bit contrived. I suspect that it's done to initiate group interactivity and relating. But I found it much more valuable to get out there and to let relationships develop in that way."

The comments of instructors suggest that games and initiative activities can increase students' self-awareness and interpersonal skills, and can also contribute indirectly to course outcomes by helping students have fun. One instructor wrote that games and initiative activities "can force students to problem solve in a contrived environment and are useful as levers to awaken awareness in students. [However], the courses involve so much problem solving that adding more seems to me to be more than is needed." Another instructor described games and initiative activities as "valuable tools to develop communication and group functioning. The initiative can be used to pinpoint a specific problem that the group may be having. It is a very artificial non-threatening process." Both of these instructors also mentioned that games and initiative activities can be used to help students have fun. One instructor wrote, "They can be useful as a diversionary activity which lifts the students' spirits."

Service project.

On almost all OBWC courses of 17 or more days in length, students participate in a service project on the second last day of their course. These projects range from yard work to restoring community buildings. The quantitative and qualitative data

indicated that service projects play a minor role in determining positive course outcomes.

In the quantitative data, the service project ranked 23 out of 28 for impact on self-concept ($M=2.82$, $SD=1.69$) (Table 2); 24 out of 28 for impact on motivation ($M=2.73$, $SD=1.64$) (Table 3); and 9 out of 28 for impact on interpersonal skills ($M=3.51$, $SD=1.60$) (Table 4). Frequency counts indicated that out of 55 students that participated in a service project, it no impact (0) on the self-concept of 9 students, on the motivation of 8 students, and on the interpersonal skills of 4 students. The service project was found to have a highly positive impact (+5) on the self-concept of 10 students, on the motivation of 9 students, and on the interpersonal skills of 22 students.

The three qualitative comments about the service project suggest that it had a short-term impact on these students' self-esteem. A 17-year-old male student wrote, "Service was good for me due to the people that I met and helping people out of the goodness of my heart." A 23-year-old male Vista graduate explained that the effect of the service project on him had been "nothing too long-term. More short-term. Just knowing that you helped someone in the community. And it's nice because you get to see how well Outward Bound is respected in the area there." When asked about the service project, a 21-year-old male graduate from 1995 said,

Oh, those were awesome. We got to help this old couple. It wasn't anything that I wouldn't do at home, but it was kind of cool to just go out and help people and then we talked with them, and they told us about their hobbies, and we kind of got to know them really quite well. So, it sticks out in my mind.

The comments of instructors discuss the service project as having a number of direct and indirect effects on course outcomes. These include developing students'

concern for others, acting as transition to the end of the course, and providing an opportunity for processing and transference. One instructor remarked, “The service aspect is valuable as a stepping stone to further service away from the group.”

Another explained that the service project,

Allows students to see that some of the ‘helping others’ skills which they have hopefully picked up can be useful to others not in the group. In addition the people with whom the project is done usually wish to engage the students in some kind of discussion which helps them do some of their processing of the course. [The service project can] act as a transition to the course end and the eventual end of the group experience. If properly framed, I think that it can lead to some transference.”

Final expedition.

Most OBWC courses of 17 days or longer include a final expedition. This is generally a period of two to four days when the group functions with minimal input from their instructors. Depending on the age and abilities of the group and the difficulty of the terrain, the final expedition may entail daily check-ins with the instructors, being shadowed by the instructors, or receiving occasional assistance from instructors. No quantitative data were collected on the impact of the final expedition. However, the final expedition is responsible for creating many of the other course characteristics which are included in the quantitative data set (e.g., problem solving as a group, having leadership responsibilities, etc.).

A few students (3) commented specifically about the final expedition. A 20-year-old female student wrote,

The final expedition at the end with little instructor participation had a strong, positive impact on me. Spending the whole day with just other group members – picking routes, making decisions about rest stops, river crossings, etc. – really proved to me how much we all had learned. It also was the last chance to try on a new role in the group.

Another student, a 23-year-old male, explained, “My responsibility level and concern for others was impacted by the final expedition. During this period of time, it was important that the whole group accomplish our goals together. Therefore concern for others was crucial.”

The Physical Environment and Positive Course Outcomes

The quantitative and qualitative data indicated that a number of aspects of the physical environment play a role in determining various course outcomes. These aspects include the wilderness setting, the unfamiliarity of the environment, and the weather.

Wilderness setting.

Both the quantitative and qualitative data suggest that conducting OBWC courses in a wilderness setting has a substantial impact on the course outcomes experienced by students. In the quantitative data, the wilderness setting ranked 10 out of 28 for impact on self-concept ($M=3.84$, $SD=1.60$) (Table 2); 10 out of 28 for impact on motivation ($M=3.91$, $SD=1.60$) (Table 3); and 12 out of 28 for impact on interpersonal skills ($M=3.43$, $SD=1.81$) (Table 4). Frequency counts indicated that out of 80 students, the wilderness setting had no impact (0) on the self-concept of 8

students, on the motivation of 5 students, and on the interpersonal skills of 13 students. The wilderness environment was found to have a highly positive impact (+5) on the self-concept of 34 students, on the motivation of 41 students, and on the interpersonal skills of 33 students.

A large number of qualitative comments (50) were made by students indicating that the wilderness setting contributed to the outcomes they experienced as a result of their course. A few students (2) suggested that being in the wilderness setting increased their self-awareness. A 31-year-old female graduate from 1995 said, “The wilderness environment gave me the opportunity to slow down and appreciate where I was. It allowed me to see where I could be in my life.” Another student, a 45-year-old female graduate from 1995 explained, “The wilderness gets you back in touch with what’s important to you. Civilization has too many advantages and too many artificial things that we put in place to build barriers between people. But the wilderness just strips that all away.”

A number of students (6) spoke of how being in a wilderness setting caused them to feel invigorated, alive, “real,” and peaceful. Students’ comments included, “The mountains and forests were so invigorating.”; “I feel real in the outdoors.”; “I just loved the serenity and the peaceful time I had with so much beauty around me.” A 54-year-old male graduate explained that “one of the highlights was...sleeping on one of the mountain peaks at night. Seeing the sun set and seeing the sun rise on the top of the mountain is a very nice feeling.”

There were also a few comments (3) from students suggesting that being in a wilderness setting increased their confidence in the outdoors and, in one case, influenced career choices. A 35-year-old Woman of Courage graduate from 1997

explained that the wilderness “always has an impact on me but I remember more about the beauty of that trip... than many other trips I have been on. I think at that point something shifted in me in terms of my confidence in the outdoors.” Another student, a 35-year-old female, explained the effect the wilderness environment had on her: “[It] changed me in so many ways, even influencing my career choices.”

A number of students (8) indicated that the dangers associated with being in a wilderness setting caused them to develop greater concern for others. An 18-year-old female Vista student wrote,

Just to survive in the mountains, a group needs to work together. Every detail, from making sure someone can make it down a slope safely to how a person is feeling emotionally, is crucial. This really heightens your awareness of others and helps develop intuition (learning how to assess a person’s physical/mental condition by body language etc.).

A 38-year-old female student explained, “Simply being in the wilderness with potential dangers increased awareness and concern for others.”

Many students’ comments (26) linked being in a wilderness setting with increased concern for the environment. Students discussed how the beauty and remoteness (16), the clear cuts (7), and the clean water (3) affected their concern for the environment. A 17-year-old male student explained, “This course led me to realize how much ‘filth’ and garbage is found in the modern world compared to the mountains, and I have found a new respect for nature and desire to do my part to keep it clean.” In discussing why his course had a positive impact on his concern for the environment, a 38-year-old male student wrote, “The contrast on this trip from a logging road, through a clear cut, then into the pristine alpine environment was very

powerful. Appreciating where the water comes from and seeing the interrelatedness of everything.”

Seven students discussed how being in a wilderness setting had increased their appreciation of the environment and their desire to return to it in the future. An 18-year-old female graduate from 1995 said, “I saw some pretty beautiful things when we were up on the peaks and those images stay with me forever. It just makes me appreciate things even more in the wilderness.” A 23-year-old male Vista student explained, “I definitely enjoyed that environment. I will be going back, probably numerous times.”

Several instructors commented that the wilderness environment forces students to deal with their problems and, as a result, develop their self-awareness and interpersonal skills. One instructor explained that the wilderness environment “doesn’t let students escape social conflicts or use the various distraction habits they’ve used back home (like TV or drugs). Instead they develop social habits that deal with the problems at hand – or they quickly get to see the consequences.”

Another instructor discussed the impact that being in the wilderness environment had on students’ concern for the environment. He said, “Numerous students have talked about how great it is to be able to drink the water, to not see any garbage, and so on. This underlines, for a number of students, the need to care for the environment.”

One instructor commented on the feelings of awe that the wilderness setting can create in students. The instructor wrote, “The mountains manage, of their own accord, to inspire in the students a certain awe. Their size, scale, and unpredictability

force people to be humble. I am always inspired by the reaction that students have to their first 360 degree mountain vista.”

Unfamiliarity of the environment.

The quantitative and qualitative data indicated that the unfamiliarity of the wilderness environments in which OBWC courses are conducted contributes to the outcomes students experience as a result of their courses. In the quantitative data, adapting to an unfamiliar environment ranked 8 out of 28 for impact on self-concept ($M=3.86$, $SD=1.33$) (Table 2); 8 out of 28 for impact on motivation ($M=3.93$, $SD=1.25$) (Table 3); and 8 out of 28 for impact on interpersonal skills ($M=3.55$, $SD=1.59$) (Table 4). Frequency counts indicated that out of 80 students, adapting to an unfamiliar environment had no impact (0) on the self-concept of 3 students, on the motivation of 2 students, and on the interpersonal skills of 7 students. Adapting to an unfamiliar environment was found to have a highly positive impact (+5) on the self-concept of 34 students, on the motivation of 36 students, and on the interpersonal skills of 31 students.

A few instructors commented that the unfamiliarity of the wilderness environment often causes students to experience feelings of dissonance, and results in the development of their self-awareness, self-confidence, and interpersonal skills. One instructor said, “The environment discomfits the students and in so doing forces them to try new things and rely on others.” Another instructor wrote, “The natural surroundings are generally a new experience, so they all start on an even footing without all sorts of crutches that they have developed to cope in their everyday lives.

This leads to more openness and better trust.” Another instructor remarked, “It’s sort of like the whole being is starved from the familiar and is forced to adapt.”

Weather.

No quantitative data were collected on the relationship between weather and course outcomes. The qualitative data from students and instructors indicated that the weather experienced on courses can contribute to positive course outcomes.

A number of students (6) suggested that overcoming difficult weather conditions contributed to the development of their self-confidence. An 18-year-old female graduate from 1995 said,

There was one time when we were at the top and it was foggy. It was raining and snowing all at the same time and I was completely drenched and my knees were in so much pain. I felt like I was sitting outside completely naked in a snowstorm. It was a really horrible time and I totally wanted to leave ‘cause I was really cold and in a lot of pain, but I sort of sat down with my mug of soup and it got better from there on. You can always push yourself – that’s basically what I got out of that.

A 15-year-old female student explained, “The weather – it makes me a stronger person to deal with the conditions – the wet feet, the wet clothes.”

A couple of students (2) also mentioned that pleasant weather had a positive effect on them. A 20-year-old female student wrote, “When the sun was out, it was near impossible to feel negatively.”

A few comments by instructors suggested that weather can increase the level of challenge on a course and thereby, cause students to experience positive course

outcomes. One instructor explained, “I think this has been a pretty good course. Not necessarily because of us, but because of the bad weather. It’s made it really challenging.”

Instructors and Positive Course Outcomes

Both the quantitative and qualitative data established that instructors play a large role in determining the positive outcomes students experience as a result of their course. In addition to effectively coordinating course activities, the data indicated that the aspects of instructors that have a notable impact on course outcomes are instructors’ expectations, instructors as role models, instructors’ feedback, instructors’ competence, and the curricula presented by instructors.

Instructors’ expectations.

The data indicated that instructors’ expectations of students are a factor in determining the positive course outcomes students will experience as a result of their course. In the quantitative data, instructors’ expectations ranked 18 out of 28 for impact on self-concept ($M=3.42$, $SD=1.84$) (Table 2); 12 out of 28 for impact on motivation ($M=3.62$, $SD=1.74$) (Table 3); and 18 out of 28 for impact on interpersonal skills ($M=3.16$, $SD=2.03$) (Table 4). Frequency counts indicated that out of 81 students, instructors’ expectations had no impact (0) on the self-concept of 11 students, on the motivation of 7 students, and on the interpersonal skills of 12 students. Instructors’ expectations were found to have a highly positive impact (+5) on the self-concept of 35 students, on the motivation of 36 students, and on the interpersonal skills of 31 students.

A number of qualitative comments (14) indicated that instructors can help students achieve positive course outcomes by having high, and yet achievable, expectations of students. The comments suggested that by “backing off” and “stepping in” at the right times, instructors enable other course components to affect students at maximally effective levels and, as a result, indirectly to influence course outcomes. A 54-year-old female graduate from 1992 explained, “I came out of that course thinking that was one of the most valuable things that I have ever done. [The instructors] knew how to push and how far to push. And they knew when to stand back.” A 41-year-old female graduate from 1995 said,

[The instructors] stood back until things started to crumble and then they would be able to go in and sort of rescue a situation. But they let the situation cook up to a point where issues would have to be discussed and they didn’t try and quell those issues for the sake of early group harmony. That’s a real talent.

In talking about how his OBWC course had developed his leadership skills, a 32-year-old male graduate from 1995 said, “When [the instructors] showed confidence in me, and the other people kind of accepted that, that’s what kind of did it for me basically.”

Several instructors suggested that instructors’ expectations have indirect effects on course outcomes. One instructor said, “The instructors lead the group in developing the skills to solve the course challenges then leave the group with the tools to work on their own, stepping in only when the group gets bogged down beyond their ability to cope.” And another instructor said, “I think that [instructors’] largest role has to do with motivating and inspiring the various students.”

Instructors as role models.

The quantitative and qualitative data both indicated that students of all ages often view their instructors as role models and that this can contribute to a variety of positive course outcomes. In the quantitative data, instructors as role models ranked 11 out of 28 for impact on self-concept ($M=3.70$, $SD=1.77$) (Table 2); 4 out of 28 for impact on motivation ($M=4.20$, $SD=1.31$) (Table 3); and 7 out of 28 for impact on interpersonal skills ($M=3.66$, $SD=1.76$) (Table 4). Frequency counts indicated that out of 80 students, instructors had no impact (0) as role models on the self-concept of 10 students, on the motivation of 3 students, and on the interpersonal skills of 8 students. Instructors were found to have a highly positive impact (+5) as role models on the self-concept of 42 students, on the motivation of 49 students, and on the interpersonal skills of 41 students.

Many students (12) commented that they admired and had learned from their instructors' personalities, lifestyles, skills, and interactions with others. These comments indicated that, as role models, instructors can positively affect students' self-awareness, motivation, and interpersonal skills. A 21-year-old male graduate from 1995 said, "One of [my instructors] made me think about things that I never have before - made me think about where I was going academically. They were both inspirational – what they did and what they've done." A 31-year-old female graduate from 1993 explained, "The instructors became role models to me. They gave me perspective on what was actually possible to achieve and they pushed me beyond my own personally perceived limits. As well, their skill levels gave me something to work towards achieving." A 21-year-old female student wrote, "I think that the instructors can make or break a group/course. [My instructor] was absolutely fantastic. By

watching him – how he handled himself, the group, and his co-instructor – I learned a great deal. [He] is a great role model and was a huge part of this course for me.” A 41-year-old Woman of Courage student wrote, “[My instructors] were great role models on how to work effectively in a team, how to be appreciative of people’s feelings and limitations.”

Students’ comments (6) also indicated that instructors act as role models in helping to develop students’ concern for the environment. A 62-year-old Woman of Courage student wrote, “I have never been that conscious of my environment before. Our instructors set such a wonderful example that I found myself wanting to do the same. I now have a new appreciation for our natural environment.” A 44-year-old female student explained, “The caring and respect that the instructors showed towards the environment and the animals caused me to appreciate the wilderness and its beauty even more than I originally had.”

One instructor commented on the part role modeling plays in developing students’ interpersonal skills. He explained,

The instructors are most important in setting the initial positive group environment. During this time the instructor must relate with all the members and the co-instructor in a positive supportive manner which models the future behavior of the group. Generally the group strives to adopt the most positive behavior that is modeled by the instructor pair.

Instructor’s feedback.

Instructor feedback provided to students was found to contribute to positive course outcomes. In the quantitative data, instructors’ feedback ranked 7 out of 28 for

impact on self-concept ($M=3.89$, $SD=1.36$) (Table 2); 6 out of 28 for impact on motivation ($M=4.09$, $SD=1.07$) (Table 3); and 10 out of 28 for impact on interpersonal skills ($M=3.50$, $SD=2.03$) (Table 4). Frequency counts indicated that out of 80 students, instructor feedback had no impact (0) on the self-concept of 4 students, on the motivation of one student, and on the interpersonal skills of 8 students. Instructor feedback was found to have a highly positive impact (+5) on the self-concept of 34 students, on the motivation of 36 students, and on the interpersonal skills of 30 students.

A number of students (6) commented that feedback from their instructors had motivated them to complete the course or to pursue goals following the course. A 52-year-old male student wrote, "I had some physical difficulties with the course. Motivational discussions with the instructor were of great assistance in getting me through the course. He seemed to know exactly what to say, when to say it, and how to say it." A 38-year-old Woman of Courage student explained that the aspect of her course that had the strongest positive impact on her was the "instructor reaching out to me during tough emotional and physical challenges (feeling supported 100%)." A 35-year-old Woman of Courage graduate from 1997 said, "Interaction with the instructors had the most profound impact on me. They were very encouraging and supportive of me pursuing work in outdoor rec."

One instructor's comment outlines the role that instructor feedback can play in maximizing the effect other course components have on course outcomes. The instructor said, "I think you could have an instructor who wasn't able to turn things into successes. For example, if a student isn't able to do the rock climbing – we still

have to turn it into a success. Instructors can undermine success with negative framing, but that is not what we're supposed to do.”

Instructors' competence.

The qualitative data indicated that students' perceptions of instructor competence also indirectly influence course outcomes by making students comfortable enough to get maximum benefits from other course components. In talking about her instructors' reactions to a medical emergency, an 18-year-old female graduate explained, “It was nice to know that they were very calm and what they were teaching us, they knew what they were talking about. It was nice because it made us feel even more comfortable to be with them.” Another student, a 41-year-old Woman of Courage student wrote, “[My instructors] were so knowledgeable they put me at ease.”

One instructor also commented on the impact of students' perceptions of instructor competence. In speaking about students, the instructor said, “I think you have to give them the confidence to feel safe, and once they feel safe they will do things that will make them feel better about themselves.”

Curricula presented by instructors.

The qualitative data indicated that information provided by instructors that is part of the OBWC curricula has a substantial effect on course outcomes, particularly on students' concern for the environment. A few students (3) stated that instructors' teachings on compassion increased their concern for others. A 20-year-old female Vista student explained that “having ‘compassion’ explained as one of the OB philosophy points” had increased her sense of concern for others. A 27-year-old

female student wrote, “Outward Bound teaches and makes you practice compassion and patience for others who may not be as fast or capable and for those who make mistakes which affect you.”

A total of 37 students stated that instructors’ explanations of how to travel through the mountains with minimal environmental impact caused them to have a greater concern for the environment. A 32-year-old male graduate from 1995 explained, “It was nice because Outward Bound was really on the environmental side of hiking and they really preach the mellow impact. If I’m with somebody who’s doing something wrong or inappropriate, it helps me show them a better way.” A 15-year-old male student wrote, “The instructors made me think a lot more about respecting the natural environment around us.”

Several other students (5) indicated that the natural history information provided by instructors increased their concern for the environment. A 17-year-old female student wrote, “Learning about the fragile environment and experiencing its beauty, it’s hard not to be concerned about it. I wanted to do my best to leave no trace of my presence.”

The Group and Positive Course Outcomes

Each student’s Outward Bound experience includes being part of a group, often known as a patrol, of up to nine other students. The collected data indicated that various aspects of students’ interactions with their group can influence the outcomes they experience as a result of the course. The aspects that were found to be most influential were “working as a group,” “interacting with other group members,”

“relying on other group members,” “taking care of others,” and “trying new behaviors.”

Working as a group.

The quantitative and qualitative data both suggested that working as part of a group has a significant impact on course outcomes. In the quantitative data, problem solving as a group ranked 20 out of 28 for impact on self-concept ($M=3.17$, $SD=1.33$) (Table 2); 18 out of 28 for impact on motivation ($M=3.16$, $SD=1.64$) (Table 3); and 1 out of 28 for impact on interpersonal skills ($M=4.14$, $SD=1.01$) (Table 4). Frequency counts indicated that out of 77 students, problem solving as a group had no impact (0) on the self-concept and motivation of 4 students. Problem solving as a group was found to have a highly positive impact (+5) on the self-concept of 11 students, on the motivation of 17 students, and on the interpersonal skills of 39 students.

The qualitative data indicated that students' self-awareness, interpersonal skills, and concern for others can be affected by working as a group on OBWC courses. The comments of a few students suggested that working as a group had a minor impact on their self-awareness. A 45-year-old female graduate from 1995 remembered, “For once I was the one struggling, whereas that's not usually the case [at home]. So it was good for me to have the team dynamic from a weak perspective.”

A number of students (14) stated that working as part of a group had helped develop their interpersonal skills. An 18-year-old male graduate from 1995 explained, “Our group had a lot of conflicting personalities. I think that helped me learn to take on the role of mediator. It really kicked me into gear that way. Since Outward Bound I've definitely become more of an extrovert.” A 25-year-old female student said, “[I]

learned to listen more closely to the question before answering and that I don't always have to add my suggestion to achieve our goals." A 16-year-old male student said, "I've been trying to be a lot nicer - maybe that will carry over to my city life - maybe to not be the leader as much and to listen more."

Many students (22) suggested that working as a part of a group increased their concern for others. An 18-year-old female graduate from 1995 explained,

It definitely developed my people skills, but also got me a little more sensitive about people and about my surroundings. It taught me to be more aware of people and to look at people to make sure that everything's okay or if they can be helped. Because you really needed to be able to help the people that you were hiking with to see who needed a lesser load, and who was stronger, and who needed to have more breaks, and just that sort of thing.

A 32-year-old male graduate from 1995 said, "I think it helped me kind of be more aware of what was going on around me. As opposed to being someone who wasn't paying attention to what the next guy did."

Interacting with other group members.

The quantitative and qualitative data indicated that students' interactions with other group members contribute to the positive outcomes students experience as a result of their course. Quantitative data were collected on the impact of "relationships with other group members" and "attitudes of other group members." Relationships with other group members ranked 16 out of 28 for impact on self-concept ($M=3.53$, $SD=1.61$) (Table 2); 19 out of 28 for impact on motivation ($M=3.15$, $SD=1.86$) (Table 3); and 4 out of 28 for impact on interpersonal skills ($M=3.90$, $SD=1.63$) (Table 4).

Frequency counts indicated that out of 81 students, relationships with other group members had no impact (0) on the self-concept of 5 students, on the motivation of 10 students, and on the interpersonal skills of 4 students. Relationships with other group members was found to have a highly positive impact (+5) on the self-concept of 27 students, on the motivation of 25 students, and on the interpersonal skills of 42 students.

The attitudes of other group members ranked 24 out of 28 for impact on self-concept ($M=2.70$, $SD=2.00$) (Table 2); 23 out of 28 for impact on motivation ($M=2.75$, $SD=1.97$) (Table 3); and 20 out of 28 for impact on interpersonal skills ($M=3.11$, $SD=2.07$) (Table 4). Frequency counts indicated that out of 81 students, the attitudes of other group members had no impact (0) on the self-concept of 13 students, on the motivation of 12 students, and on the interpersonal skills of 6 students. The attitudes of other group members were found to have a highly positive impact (+5) on the self-concept of 17 students, on the motivation of 17 students, and on the interpersonal skills of 21 students.

Due to the overlap of “relationships with other group members,” “attitudes of other group members,” “group dynamics,” and so on, the qualitative data related to “interacting with other group members” were not divided into categories. Interacting with other group members was found to have a positive impact on students’ self-awareness, self-confidence, motivation, and interpersonal skills.

Some students’ comments (6) suggested that interactions with other group members increased their self-awareness. An 18-year-old male Vista student explained that the aspect of his course that had the greatest positive impact on him was “sharing a tent with someone I didn’t like so much. It made me realize that I actually had

patience and for some reason I never thought I did.” A 54-year-old graduate from 1992 explained, “At the end of the course I got a comment from each member of the group – usually comments directed at myself. I find those comments quite enlightening.” A 27-year-old female student wrote, “I learned how much I enjoy myself in the company of others.”

Many students (15) reported that interactions with other group members increased their interpersonal skills. A 16-year-old male student said, “Sleeping together with other people, being with them nonstop 24 hours a day – I guess it has really changed my mind about how to interact with other people.” In talking about the effect that interacting with other group members had on her, an 18-year-old graduate from 1995 said,

It made me be more sensitive to other people around me and to be more aware of their feelings. When you're in those closed kind of quarters you have to make everyone happy - how much space they get, where their stuff goes - and it's easier to be able to deal with the situation in a more positive manner than negative. I became pretty positive towards the people around me and that has helped me now. I try to be more positive with the people around me – to be more aware of what they need.

The comments of a few students suggested that interactions with other group members may indirectly influence course outcomes by affecting students' motivation while on the course. A 15-year-old male student wrote, “I think that the aspect which had the most positive impact was the friendships I made here. I was always having fun which kept me motivated and my confidence high.”

The comments of several instructors also suggested that interactions with other group members can enhance students' interpersonal skills. One instructor said,

Due to the communal nature of the course, students are forced to interact in quite intimate ways with a bunch of strangers for an extended period of time.

This, along with proper instruction and good facilitation, enables each student to learn and apply the very real skills of people management, decision-making, conflict resolution, and so on.

Other instructors commented that the interactions between group members can indirectly affect course outcomes by increasing the overall effectiveness of a course.

One instructor said, "I think the group [students] are in impacts what kind of outcomes they are going to have." When asked about the importance of students' interactions with other group members, another instructor explained, "This is the key element to a successful course. A group which is not getting along together well or with a member who is ostracized or left out is hampered in its ability to function well."

Relying on other group members.

The data indicated that relying on other group members affects the outcomes students experience as a result of their courses. In the quantitative data, relying on other group members ranked 26 out of 28 for impact on self-concept ($M=2.53$, $SD=1.87$) (Table 2); 26 out of 28 for impact on motivation ($M=2.58$, $SD=1.92$) (Table 3); and 6 out of 28 for impact on interpersonal skills ($M=3.80$, $SD=1.54$) (Table 4). Frequency counts indicated that out of 81 students, relying on other group members had no impact (0) on the self-concept of 15 students, on the motivation of 11 students, and on the interpersonal skills of 2 students. Relying on other group members was

found to have a highly positive impact (+5) on the self-concept of 16 students, on the motivation of 15 students, and on the interpersonal skills of 34 students.

In the qualitative data, a number of students (7) linked relying on others with increases in self-awareness. A 45-year-old female graduate from 1995 said,

I found out that you can't do everything that you make your mind up to do because sometimes there are factors like your physical ability that actually inhibit you. The key is that you can do anything that you put your mind to as long as you've other people that are there to help you. So I learned the lesson of interdependence as opposed to independence and for me that was pretty major because to be interdependent you have to be humble enough to say I can't do this by myself, and that was a tough thing for me to, a tough pill to swallow.

A 54-year-old graduate from 1992 made a similar remark: "The group became very independent and it was good for me to feel dependency because I'm usually quite independent. That experience showed me that I can be dependent." A 24-year-old female student wrote, "I became very aware of my dependence on others."

A few comments indicated that relying on other group members has an impact on some students' interpersonal skills. An 18-year-old graduate from 1995 said, "And asking for help myself, that wasn't something I did a lot, but after that I was able to talk to people a lot easier."

A few students noted the effects that relying on other group members had on their motivation while on the course. A 59-year-old Woman of Courage student wrote, "Never in my life have I received such total support and encouragement from individuals or a group. That is what spurred me on to continue." A 44-year-old

female graduate from 1995 explained, “When you try and you fail, and then a group picks you up and together you make it – I think it makes you a little more prepared to go places where you might not have gone before.”

Taking care of others.

The qualitative data indicated that taking care of others can contribute to positive course outcomes. Although a few of students’ comments (4) indicated that taking care of others increased their self-concept, most comments (15) suggested that it had increased their concern for others. A 21-year-old female student wrote, “Sometimes I was needed as the ‘sweep,’ or to take extra weight for the injured. Seeing their appreciation was so satisfying!” When asked if she felt her OBWC course had any impact on her as a person, an 18-year-old female graduate from 1995 responded,

Yes. A great amount of impact. It was learning to not blow up at people around you and help people and that was something that I wasn’t really open to before I went to Outward Bound simply because I’d never been in situations like that. But there was things like having to deal with people who didn’t want to go on anymore, who were tired, who were just basically beaten for the day, and having to help them.

Trying new behaviors.

Being a part of a group of unfamiliar people allows students to try out new behaviors, such as being less vocal or being more considerate of others. The quantitative and qualitative data indicated that trying new behaviors can influence

course outcomes such as students' self-awareness and self-confidence. In the quantitative data, trying out new behaviors ranked 9 out of 28 for impact on self-concept ($M=3.84$, $SD=1.51$) (Table 2); 15 out of 28 for impact on motivation ($M=3.42$, $SD=1.79$) (Table 3); and 14 out of 28 for impact on interpersonal skills ($M=3.38$, $SD=1.94$) (Table 4). Frequency counts indicated that out of 74 students, trying out new behaviors had no impact (0) on the self-concept of 3 students, on the motivation of 6 students, and on the interpersonal skills of 7 students. Trying out new behaviors was found to have a highly positive impact (+5) on the self-concept of 35 students, on the motivation of 28 students, and on the interpersonal skills of 31 students.

The qualitative data suggested that trying out new behaviors in the group can increase students' self-awareness and self-confidence. A 52-year-old male student wrote, "Trying to play a variety of roles – checking feelings, deciding, acting, helping – was an enormously valuable exercise in self-awareness." In a solo debrief, a 27-year-old female student said, "One of my goals was to share my feelings more – so here I go." A 54-year-old male graduate from 1995 explained,

I'm the kind of guy that gets into a group and gets things organized. My wife and a good family friend of mine have said that's something that sort of bugs them. It made me stop when I was on Outward Bound and lay that leadership role down. But I found out later that I am a leader and that's just the way it's going to be. So I came to be a little bit more comfortable with the idea that I do take on leadership roles.

Course Components that Negatively Affected Course Outcomes

To gain a better understanding of how OBWC course outcomes are achieved, it was necessary to determine whether any course components negatively affected the outcomes students experienced as a result of their courses. Both quantitative and qualitative data were collected to discover any course components that reduce positive course outcomes or cause negative course outcomes. With the quantitative data, frequency counts were used to calculate the number of students who felt a course component had a “negative impact” on them (-1 to -5). The quantitative findings are only discussed for those course components that three or more students felt had a negative impact on them.

The comments of 20 students (including 8 of the 10 graduates interviewed) indicated that there were no course components that negatively affected the outcomes they experienced as a result of their courses. A 31-year-old graduate from 1993 said, “[There were] no unnecessary or negative impacts. For me it was a package deal. To achieve something substantial we had to endure the less appealing points of the course.” An 18-year-old male Vista student wrote, “I can not think of any negative impacts on me. If there were any I am sure that they were good learning experiences, so that would make them positive.”

However, many other students indicated in the quantitative and qualitative data that their OBWC course included course components that negatively affected the outcomes they experienced. In some cases the negative effects on course outcomes are not stated explicitly in the qualitative data, but can be inferred from the comments. The data have been organized under headings that parallel those used in the previous section. These headings are (a) qualities of course activities, (b) specific course

activities, (c) the physical environment, (d) instructors, (e) the group, and (f) other course components.

Qualities of Course Activities and Negative Effects on Course Outcomes

The quantitative and qualitative data indicated that a few qualities of course activities can negatively affect course outcomes. In the quantitative data, failing to achieve success was found to have a negative impact (-1 to -5) on the self-concept of 23 students, on the motivation of 10 students, and on the interpersonal skills of 11 students. The quantitative data also indicated that being scared before or during activities negatively affected the self-concept of 5 students and the motivation of 4 students.

In the qualitative data, several students (5) described an incident where they had failed to achieve success as the aspect of the course that had the “strongest negative impact” on them. One 16-year-old student male Vista student wrote, “When I wasn’t able to do something that the rest of the group could do easily I would feel as though I let them and myself down.” Another 16-year-old male student explained, “We should have gone for an attempt of Sherl. Things fell apart somewhere - I think the leader of the day screwed up. Many people felt bad that day - that we were cheated because we didn’t get to climb Sherl.”

A number of students (10) also indicated that a lack of physical challenge had decreased the positive outcomes that they had experienced as a result of their course. Many of the students attributed this lack of physical challenge to the presence of less fit or motivated individuals who slowed down the pace of their group. A 24-year-old female student wrote, “We had some group members who were not physically

prepared for the course. They limited what we could achieve. I left the course knowing that I was not pushed as far as I could have been.” A 35-year-old female graduate from 1997 explained, “I worked so hard to get there and then some combined factors of how the course unfolded left me feeling a little disappointed. I was really there to push the envelope and unfortunately it didn’t turn out to be that sort of trip.”

Specific Course Activities and Negative Effects on Course Outcomes

According to the quantitative data, a few course activities negatively affected the course outcomes experienced by some students. Talking about home during a course was reported as having a negative impact (-1 to -5) on the self-concept of 5 students, on the motivation of 8 students, and on the interpersonal skills of 3 students. The course-end run was also found to negatively affect the self-concept of 3 students.

In the qualitative data, a few students (3) commented that getting lost on the course-end run, or not being able to complete the run due to an injury, negatively affected them. No explicit links to decreases in course outcomes are discussed. A 41-year-old Woman of Courage student wrote that the aspect of her course that had the strongest negative impact on her was “when I got lost during the 10 km run. Nobody was in sight and nobody heard my calls for help. I was scared.”

The Physical Environment and Negative Effects on Course Outcomes

A number of qualitative comments (18) indicated that difficult weather conditions decrease students’ motivation and ability to focus on their course, thereby indirectly reducing positive course outcomes. A 20-year-old female student wrote that the aspect of the course that had the strongest negative impact on her was “the rain. I

know it was uncontrollable, but it really got me down and super unmotivated.”

Another student, a 35-year-old female student, wrote, “My feet got very cold. I was unable to focus and concentrate at times because I was afraid my toes were experiencing frostbite.”

Instructors and Negative Effects on Course Outcomes

The qualitative data indicated that instructors’ expectations and personalities sometimes negatively affect the outcomes students experience. A number of students (10) suggested that instructors could reduce positive course outcomes by either not expecting enough of students or expecting too much. A 16-year-old male student said, “I think that the instructors weren’t expecting enough of us and it let us lag behind.” Another 16-year-old male student commented, “In other groups I think you could back off, but this group still needs a lot of instructor input. You have to back off when the group is ready for you to back off.” A 15-year-old female student explained,

[Our instructor] often says, ‘If you guys don’t want to do it, then you don’t have to – it’s your course.’ Then some students say, ‘Yeah! It’s our course, let’s sleep in,’ and this means the rest of us, who really want to do stuff, can’t. I don’t like this because I want to feel very accomplished at the end. I don’t want to have any regrets.

One instructor also commented that not expecting enough of a group and keeping control too long “hampers the development of an effective group.”

A few students indicated that their instructors’ personalities had a negative impact on them. Although explicit links to course outcomes were not made, in these type of incidents instructors were acting as negative role models for students. In

talking about one of her instructors, a 16-year-old student said, “I don’t like it when the instructor yells a lot because I get really scared. I don’t think he has the right to be like that. But he’s a human being just like all of us, so I guess you can’t really blame him.” Another student, a 21-year-old female, explained, “[One instructor] sometimes did not respect [other instructors’] abilities, perhaps because he is younger and quite inexperienced. The tension between the two of them was often obvious, though he tried his best to compromise.”

One instructor also commented on the effects of instructor personality by saying, “Instructor ego can, and often does, have a negative effect on students. It can lead to lower course quality if the instructor is doing things for their own benefit and not with the group’s benefit in mind.”

The Group and Negative Effects on Course Outcomes

The data indicated that working as a group, the attitudes of other group members, and interacting with other group members can negatively affect course outcomes either indirectly or directly. The reported negative impacts include decreases in students’ self-concept, motivation, and interpersonal skills while on their course.

In the quantitative data, a few students indicated that problem solving as a group (3) and relying on other group members (4) had a negative impact (-1 to -5) on their motivation. The attitudes of other group members were found to have a negative impact (-1 to -5) on the self-concept of 4 students, on the motivation of 4 students, and on the interpersonal skills of 5 students.

The qualitative comments of a number of students (21) indicated that being required to work as part of a group can have a negative impact on course incomes. Many students expressed feeling that other students were not doing their share of the work on the course. A 27-year-old female student wrote, “I thought the course was making me more selfish and I realized that I was feeling resentful that others were not putting in as much effort.” A 37-year-old female student explained, “The strongest negative impact on me was the group dynamics. Because there wasn’t a set schedule of ‘chores,’ some members didn’t do their share. I was stressed because I didn’t want to have to volunteer for more than my share.” A 15-year-old female student wrote, “Problems within the group had a negative impact on me. When two people don’t get along, or if someone is singled out, it affects the chemistry and limits the abilities of the group as a whole.”

A number of students (7) indicated that the attitudes of other group members decreased their energy and motivation while on the course. A 22-year-old male student said, “I didn’t like hearing other group members complain in the morning that, ‘It was too cold!’ The team morale dropped a lot when one person started complaining.” A 44-year-old female student wrote, “There was one person on our course who I found difficult to deal with and the negativity of this person got me down at times.”

Several students (7) commented that interacting with other group members had a negative impact on their energy and motivation while on the course, and in one case, on their interpersonal skills. A 43-year-old Woman of Courage student indicated that the course’s strongest negative impact on her was “one group member that I found very disruptive and disturbing – she was a constant drain on my energy.” A 38-year-

old female student explained, “As a loner it was hard having to spend 24 hours with women I didn’t know and didn’t choose. The lack of privacy had a negative impact on my interpersonal skills.” One instructor also commented, “I’ve had some courses that I don’t feel were very impactful. I’ve had lots of people who haven’t enjoyed their course – they didn’t get along with the group.”

Other Course Components and Negative Effects on Course Outcomes

The only other course component that students indicated had a negative impact on them was the food. In the qualitative data, a few students (5) commented that the food on their course was unhygienic or insufficient. A 27-year-old Woman of Courage student wrote, “The food – yuck! Being required to share food when I knew no one was properly washing their hands meant I did not eat very much and therefore, was hungry.” A 17-year-old male student explained, “The most negative feeling for me was the lack of sufficient food for those with larger appetites and those with heavier packs.”

The Influence of Students’ Characteristics

To gain a better understanding of how OBWC course outcomes are achieved, it was necessary to determine whether the characteristics of students influence course outcomes and the impact various course components have on course outcomes. Both quantitative and qualitative data were gathered to help understand the relationships among student characteristics, course components, and course outcomes.

Quantitative data were collected via a questionnaire that was distributed to students at the end of their OBWC course (Appendix A). The questionnaire contained

a quantitative matrix that listed 28 potential course components and asked students to rate the impact of those components on their self-concept, motivation, and interpersonal skills using a scale of -5 (highly negative impact) to +5 (highly positive impact). There were 81 completed questionnaires returned and used in the quantitative data analysis. The qualitative data were collected through open-ended questions on the questionnaire, through interviews with students, through observation of students, and through interviews with instructors.

The quantitative and qualitative data suggested that various characteristics of students contribute to determining course outcomes and to determining the impact that various course components have on course outcomes. Student characteristics that were examined for relationships with course components and course outcomes include gender, age, population, and expectations.

To facilitate comprehension of the quantitative findings discussed in the following sections, the calculation of a number of values should be clarified. The “average impact” of a course component on a course outcome was established by calculating the mean of the ratings given by students in the quantitative matrix in Section A of the questionnaire. The “overall impact (of the course) on self-concept” was calculated by finding the mean of the 28 course components’ average impact on self-concept. The “overall impact on motivation” and the “overall impact on interpersonal skills” were determined in similar ways. The “impact (of the course) on concern for others” and the “impact on concern for the environment” were calculated by finding the mean of the ratings given by students in questions three and four of Section B of the questionnaire. The “overall impact of a course component” on course

outcomes was determined by calculating the mean of the average impact of that course component on self-concept, on motivation, and on interpersonal skills.

Gender

To determine whether there were differences between the course outcomes experienced by females and males, descriptive statistics were run on the quantitative data. Means and standard deviations were calculated for females and males for the overall impact on self-concept, overall impact on motivation, overall impact on interpersonal skills, impact on concern for others, and impact on concern for the environment. Independent samples t-tests were then run to determine the statistical significance of the differences between the means of females and males for each of these five course outcomes.

The t-tests suggested that females experienced greater benefits from OBWC courses than males. The means for overall impact on self-concept, overall impact on motivation, and overall impact on interpersonal skills were all significantly higher for females than for males (Table 5). However, despite the fairly even mix of females and males in the quantitative data sample (43:38), on average the females were considerably older than the males. The average age of female respondents was 31, whereas the average age of male respondents was 20. To investigate if the apparent differences between females and males were being caused by the difference in gender or by the differences in age, independent sample t-tests were run for each age group. The tests revealed that, although females had higher raw scores than males for overall impact on self-concept, overall impact on motivation, and overall impact on interpersonal skills in all age groups, the only age groups that showed a statistically

Table 5

Comparison of the Course Outcomes Experienced by Females and Males

Course Outcome	Gender	<u>M</u>	<u>N</u>	<u>SD</u>	<u>T</u>
Overall impact on self-concept	f	3.72	43	.73	4.218
	m	3.03	38	.74	***
Overall impact on motivation	f	3.78	43	.73	4.811
	m	2.99	38	.74	***
Overall impact on interpersonal skills	f	3.54	43	.94	4.383
	m	2.71	38	.73	***
Impact on concern for others	f	3.63	41	1.71	.490
	m	3.45	38	1.67	
Impact on concern for environment	f	3.83	40	1.43	-.172
	m	3.88	34	1.43	

* $p < .05$ ** $p < .01$ *** $p < .001$

significant difference between genders were 17 and 18-year-olds and over 40-year-olds, both of which included one gender with a sample size of only two people. The small number of students in many of the age groups may have rendered the grouped gender comparisons problematic. A table of this data is not included as a result of its unmanageable size.

To determine whether there were differences between the course components that contributed to the outcomes experienced by females and males, both the quantitative and qualitative data were examined. Descriptive statistics were run on the quantitative data to determine the means and standard deviations of females and males for the overall impact of each of the 28 course components tested. Independent samples t-tests indicated a statistically significant difference between the mean impact on females and males for 20 out of the 28 course components (Table 6). Independent samples t-tests run for each of the five age groups found that each age group had between one and nine course components with a statistically significant difference between females and males. However, the course components with statistically significant differences were different for each age group, indicating that there are no course components that stand out as being more effective for a particular gender.

However, analysis of the qualitative comments of students suggested that some course components have more of an impact on one of the genders. The qualitative data were analyzed to determine the number of females and males who commented on each of the course components. Out of the 92 students who contributed qualitative data, 55% were female and 45% were male. In contrast to these proportions, a high number of the comments were made by females attributing positive course outcomes to the following course components: relying on other group members (31 out of 34

Table 6

Comparison of the Impact of Course Components on the Course OutcomesExperienced by Females and Males

Course Component	Gender	<u>M</u>	<u>N</u>	<u>SD</u>	<u>T</u>
Solo	f	2.94	43	1.41	1.569
	m	2.50	38	1.05	
Service project	f	3.63	20	1.29	2.508
	m	2.67	35	1.42	*
Course-end run	f	2.97	42	1.40	1.766
	m	2.39	35	1.47	
Adapting to an unfamiliar environment	f	4.13	43	1.02	3.061
	m	3.37	37	1.20	**
The wilderness setting	f	4.24	43	1.00	3.840
	m	3.12	37	1.57	***
Being challenged physically	f	4.38	43	.66	4.330
	m	3.48	37	1.17	***
Being scared before or during activities	f	3.30	43	2.03	2.818
	m	2.02	34	1.92	**
Setting and achieving goals	f	4.29	43	.81	3.252
	m	3.46	38	1.42	**
Achieving individual success	f	4.21	43	.83	2.683
	m	3.67	38	1.02	**
Achieving group success	f	4.01	43	1.03	2.349
	m	3.39	34	1.27	*
Failing to achieve success	f	1.46	32	2.12	1.441
	m	.73	34	2.01	
Learning new skills	f	4.29	43	1.03	3.586
	m	3.46	37	1.05	**
Choosing level of involvement in activities	f	4.08	43	1.22	4.150
	m	2.83	36	1.44	***
Trying out new behaviors	f	3.94	40	1.31	2.613
	m	3.08	34	1.53	*

* $p < .05$ ** $p < .01$ *** $p < .001$ table continued

Course Component	Gender	<u>M</u>	<u>N</u>	<u>SD</u>	<u>T</u>
Problem solving as a group	f	3.74	41	.96	2.213
	m	3.20	36	1.17	*
Relying on other group members	f	3.38	43	1.28	2.785
	m	2.51	38	1.53	**
Taking responsibility for yourself	f	4.16	43	1.21	2.874
	m	3.33	38	1.39	**
Having leadership responsibilities	f	4.08	42	1.19	.843
	m	3.85	36	1.19	
Informal conversations	f	3.63	43	1.43	3.678
	m	2.34	38	1.72	***
Structured discussions/debriefings	f	3.33	43	1.46	4.068
	m	2.09	38	1.25	***
Talking about home during the course	f	1.70	43	1.87	-1.329
	m	2.60	36	1.87	
Reflection (e.g., journal writing and thinking)	f	3.23	43	1.49	1.293
	m	2.76	38	1.78	
Relationships with other group members	f	3.95	43	1.28	2.934
	m	3.05	38	1.46	**
Attitudes of other group members	f	3.36	43	1.46	3.062
	m	2.28	38	1.72	**
Instructors' personalities	f	4.05	43	1.25	1.347
	m	3.69	37	1.07	
Instructors' expectations	f	3.69	43	1.73	1.684
	m	3.07	38	1.57	
Instructors' feedback	f	4.16	42	1.09	2.817
	m	3.46	38	1.14	**
Instructors as role models	f	4.18	43	1.27	2.239
	m	3.48	37	1.53	*

* $p < .05$

** $p < .01$

*** $p < .001$

comments), rock climbing (18 out of 21 comments), taking care of others (12 out of 16 comments), and being physically or mentally challenged (26 out of 36 comments).

Because a large proportion of the females are adults (84%) and a large proportion of the males are youth (64%), it is possible that these differences in the number of comments from females and males are a function of age rather than gender. However, relying on other group members is the only one of these four course components about which more adults (19 and older) made positive comments than youth (26 out of 34 comments were made by adults). These findings suggest that the course components of rock climbing, taking care of others, and challenge have more of an impact on females than they do males.

The only qualitative comments from instructors on this topic contradict these findings. One instructor remarked that physical challenge has more of an effect on males than it does on females.

Age

Both the quantitative and qualitative data were analyzed to determine whether students' ages influence the outcomes they experience or which course components cause those outcomes. To begin with, the quantitative data were separated into genders to enable a distinction to be made between the effects of age and gender. However, this resulted in some of the age groups having very small sample sizes. For example, there were only two students in the 17 and 18-year-old female age group and two students in the over 40-years-old male age group. This limitation should be taken into consideration when considering the quantitative results reported in this section.

Descriptive statistics were run on the quantitative data for each gender to determine the means and standard deviations for each age group for the overall impact on self-concept, motivation, and interpersonal skills; the impact on concern for others and on concern for the environment; and the overall impact of each of the 28 course components. One-way analyses of variance were then conducted to determine the statistical significance of the differences between the means of the different age groups within each gender. For those outcomes or course components that showed a statistically significant difference between the means of the various age groups, a Tukey post-hoc was used to determine which age groups were causing the difference.

A series of one-way analyses of variance run using the data collected from females indicated statistically significant differences between age groups for the overall impact of course on self-concept ($F_{(4,38)}=2.875$, $p<.05$), overall impact of course on motivation ($F_{(4,38)}=4.246$, $p<.01$), and overall impact of course on interpersonal skills ($F_{(4,38)}=4.005$, $p<.01$). A Tukey post-hoc was then run to determine which age groups were responsible for these differences. The post-hoc showed no significant difference between age groups for overall impact of course on self-concept, but did indicate that females over 40-year-olds experienced a statistically significantly higher impact on their motivation and interpersonal skills than females in the 15 and 16-year-old age group. A table of the age group data is not included due to its unmanageable size.

The one-way analyses of variance run for females also indicated a statistically significant difference between age groups for 6 of the 28 course components tested. Statistically significant differences among age categories of female students were found for the overall impact of the solo ($F_{(4,38)}=2.697$, $p<.05$), the overall impact of the

wilderness environment ($F_{(4,38)}=3.029$, $p<.05$), the overall impact of being challenged physically ($F_{(4,38)}=2.717$, $p<.05$), the overall impact of relying on other group members ($F_{(4,38)}=4.720$, $p<.01$), the overall impact of the attitudes of other group members ($F_{(4,38)}=3.484$, $p<.05$), and the overall impact of instructors' personalities ($F_{(4,38)}=2.630$, $p<.05$). A Tukey post-hoc was then run to determine which age groups were responsible for these differences. The post-hoc showed no statistically significant differences between female age groups for four of the course components, but did indicate that females over 40-years-old experienced a statistically significantly higher impact from the wilderness environment and relying on others than did females in the 15 and 16-year-old age group. The post-hoc also showed a statistically significant difference between females in the 15 and 16-year-old age group and the 17 and 18-year-old age group for the overall impact of relying on other group members. However, the small sample size (2) for 17 and 18-year-old females makes this finding unreliable.

A series of one-way analyses of variance run for males indicated no statistically significant differences between the outcomes reported by the various age groups. However, they did indicate a statistically significant difference between male age groups for one of the 28 course components tested. A statistically significant difference was found between male age groups for the overall impact of failing to achieve success ($F_{(4,29)}=3.358$, $p<.05$). However, as a result of the small sample size of some of the male age groups, a post-hoc was unable to be performed to determine which age groups were responsible for this difference.

The qualitative comments of students indicated that some course components may have more of an impact on certain age groups. The data were analyzed to

determine the number of adults (19 and over) and youths (under 19) who commented on each of the course components. Out of the 92 students who contributed qualitative data, 62% were adults and 38% were youth. In contrast to these proportions, a high number of the comments were made by adults attributing positive course outcomes to the following course components: group discussions (16 out of 17 comments), the course-end run (9 out of 11 comments), relying on other group members (26 out of 34 comments), and the solo (36 out of 46 comments). A high number of youth indicated that being responsible for themselves had positively affected them (8 out of 12 comments).

Because a large proportion of the adults are females (88%) and a large proportion of the youth are male (77%), it is possible that these differences are a function of gender, rather than age. However, relying on other group members is the only one of these five course components that either a high number of females or males made positive comments about (31 out of 34 comments were from females). These findings suggest that the course components of group discussions, the course-end run, and the solo had a greater impact on adults, and that the course components of being responsible for oneself had a greater impact on youths.

These findings are supported by the qualitative comments of instructors. Two instructors commented that group discussions were more valuable for adults than for youth. Several instructors (4) expressed feeling that the solo is less effective for 15 and 16-year-olds than it is for older students. In talking about the solo, one instructor said, "I think it affects maybe only one out of a group of 15 and 16-year-olds, more in an adult group. With younger groups I frame it as time away from the group rather than as time for reflection." Another instructor remarked that providing opportunities

for independence is particularly important for youth, such as through the final expedition.

Population

In 1999, two of the types of courses offered by OBWC were “community courses”: the Women of Courage course for female survivors of abuse and the Vista courses for youth at risk. These differed from the “public courses” in that they were restricted to specific populations and were fully sponsored. Both the quantitative and qualitative data were used to investigate whether being a part of a specific population affects course outcomes and the impact various course components have on course outcomes.

The quantitative data were coded according to population to enable an investigation of differences between adult women on public courses and adult women on Women of Courage community courses, and between youth on public courses (under 19) and youth on community Vista courses. Descriptive statistics were run to determine the means and standard deviations for each of these population types. Independent samples t-tests were then run to check for any statistically significant differences between these pairs in overall impact on self-concept, motivation, interpersonal skills; impact on concern for others, and concern for the environment; and overall impact on each of the 28 course components. Tables of the results are not included as a result of their unmanageable size.

The independent samples t-tests revealed no statistically significant differences in the course outcomes experienced by women on public courses and Women of Courage students. However, statistically significant differences were found between

these two groups for the overall impact of several course components on course outcomes. Women on community “Women of Courage” courses (c) reported a significantly higher impact than women on public courses (p) as a result of relying on other group members ($M_c= 3.85$, $SD_c=1.06$; $M_p=3.08$, $SD_p=1.13$, $t=-2.097$, $p<.05$), instructors’ personalities ($M_c= 4.60$, $SD_c=.86$; $M_p=3.65$, $SD_p=1.41$, $t=-2.374$, $p<.05$), and instructors as role models ($M_c= 4.60$, $SD_c=1.25$; $M_p=3.70$, $SD_p=1.36$, $t=-2.060$, $p<.05$).

Independent samples t-tests revealed no significant differences in the course outcomes experienced by youth on public courses and Vista youth. However, statistically significant differences were found between these two groups for the overall impact of several course components on course outcomes. Youth on “Vista” community courses (c) reported a significantly higher impact than youth on public courses (p) as a result of adapting to an unfamiliar environment ($M_c= 4.33$, $SD_c=1.00$; $M_p=3.27$, $SD_p=1.10$, $t=-2.346$, $p<.05$), being in a wilderness setting ($M_c= 4.38$, $SD_c=.62$; $M_p=3.04$, $SD_p=1.60$, $t=-2.156$, $p<.05$), and being challenged physically ($M_c= 4.57$, $SD_c=.46$; $M_p=3.56$, $SD_p=1.01$, $t=-2.574$, $p<.05$).

The qualitative comments of students indicated that some course components may have more of an impact on the Women of Courage and Vista populations. The data were analyzed to determine the number of Women of Courage and Vista students who commented on each of the course components. Out of the 92 students who contributed qualitative data, 19% were Women of Courage students and 9% were Vista students. In contrast to these proportions, a high number of comments were made by Women of Courage students attributing positive course outcomes to the following course components: relying on other group members (10 out of 34

comments), instructors as role models (5 out of 19 comments), and taking care of others (4 out of 16 comments). A high number of comments were made by Vista students regarding the positive impact of the following course components: the wilderness setting (7 out of 49 comments) and working as a group (5 out of 37 comments).

One instructor described those course components she feels are especially valuable to Women of Courage students as “interpersonal skill development, sharing circles, and many little successes.” She also explained that for Vista students, “it is very important that instructors trust, respect and believe in the students.”

Expectations

The qualitative data suggested that students’ expectations for their OBWC course may be a factor in determining the outcomes they experience as a result of their course. Although students’ comments do not make any links between their expectations and course outcomes, they provide clues to what students were looking for on their courses, and therefore, were perhaps more likely to find. Neither the quantitative or qualitative data provided information on whether students’ expectations contributed to determining the impact various course components had on course outcomes.

Many students (25) suggested that they expected their OBWC course to develop aspects of their self-concept. A 16-year-old male student wrote that his expectations were “to gain a more positive self-reliance and responsibility.” A 36-year-old Woman of Courage student wrote that her expectations were to “become a better person, more patient, and a better mom.”

Other students reported expecting to develop their interpersonal skills (9), to be physically and mentally challenged (26), or to learn mountaineering skills (18). A 29-year-old Woman of Courage student wrote that her expectations were “to work on relating and cooperating with others.” A 36-year-old male student explained that his expectations of his course were, “To be challenged mentally and physically and come away from it with perspective on my life.” An 18-year-old female Vista student wrote, “I was expecting a hardcore mountaineering trip that would give me a chance to develop more skills in the field.”

A few instructors commented on the relationship between students’ expectations and the outcomes they experience. One instructor said, “I think an individual’s emotional readiness to soak up all the stuff that’s going to be laid out in front of them, and what they are seeking consciously or unconsciously, will affect how a course impacts them.” Another instructor commented, “I think a student’s growth might depend on how much growth they need in their personal life – some people just come for adventure. I believe that greater motivation leads to bigger successes.”

Summary

The combination of quantitative and qualitative data gathered through questionnaires, interviews with students, and interviews with instructors rendered detailed information on how OBWC course outcomes are achieved. The data provided answers to the following four research questions:

1. Which course components contributed to which positive course outcomes?
2. Which course components negatively affected course outcomes?
3. How did students’ characteristics influence course outcomes?

4. How did students' characteristics influence the impact various course components had on course outcomes

Course Components that Contributed to Positive Course Outcomes

Large amounts of data were collected on the broad question of which course components contributed to which positive course outcomes. From the data, it can be concluded that many parts of a course, or "course components," played a role in determining the outcomes that students experienced. Twenty-nine course components emerged from the data as those that influence course outcomes. This summary will provide an overview of those course components that appear to be most influential in determining each of the course outcomes. Course components are listed in the approximate order of their influence on the course outcome being discussed.

According to the quantity of qualitative comments, the course component that led to the greatest increases in students' self-awareness was the solo. Increased self-awareness was also achieved through interacting with other group members, working as a group, relying on other group members, backpacking/mountaineering, the wilderness environment, the unfamiliarity of the environment, instructors as role models, group discussions, the final expedition, and games and initiative activities. Closely related to increased self-awareness, the qualitative data suggested that the course component of the wilderness setting resulted in students feeling more alive and peaceful.

The course components which resulted in the greatest increases in students' self-confidence, self-reliance, self-esteem, and self-concept were the closely linked components of achieving individual success and challenge. Other course components

that ranked high for their impact on self-concept in the quantitative data include being responsible for oneself, learning new skills, setting and achieving goals, and having leadership responsibilities. In the qualitative data, other course components that are described as playing an important role in achieving increases in students' self-confidence, self-reliance, self-esteem, or self-concept are mostly activities that provide opportunities for challenge and achieving individual success. These course components include backpacking/mountaineering, solo, rock climbing, learning new skills, the course-end run, the weather, taking care of others, having leadership responsibilities, the service project, group discussions, camp set-up and cooking, and the final expedition.

The data were less conclusive with regard to the course components that led to increases in motivation. In the quantitative data, the course components that were ranked by students as causing the greatest increases in their motivation (defined as desire to learn and achieve) were achieving individual success, learning new skills, instructors' personalities, instructors as role models, being challenged physically, and instructors' feedback. In the qualitative data, the course component that students discussed most often as increasing their motivation was the solo, as it gave them time to reflect on what they wanted to change in their lives. Instructors' feedback and instructors as role models were also reported as contributing to increased motivation. Finally, a few students described challenge as increasing their motivation.

The qualitative data indicated that the course components of learning new skills and rock climbing cause a number of students to do, or to desire to do, the new skill again following their course. Thus, the development of new, healthy past times is another outcome some students achieve as a result of their course.

One course outcome that emerged out of the qualitative data was becoming a more responsible individual. The course component that was linked with achieving this course outcome was being responsible for oneself.

The data suggested that interacting with other group members, working as a group, and instructors as role models are the course components that lead to the greatest increases in interpersonal skills. Other course components ranked in the quantitative data as having great impact on interpersonal skills include achieving group success, having leadership responsibilities, instructors' personalities, and relying on other group members. In the qualitative data, other course components that were found to increase interpersonal skills include challenge, games and initiative activities, rock climbing (trust), having leadership responsibilities (leadership skills), relying on other group members, and backpacking/mountaineering.

According to the qualitative data, the course components that have the greatest impact on students' concern for others are working as a group and taking care of others. The wilderness setting, camp set-up and cooking, having leadership responsibilities, curricula presented by instructors, the service project, and the final expedition were also found to influence students' concern for others.

The qualitative data suggested that the curricula presented by instructors and the wilderness setting are the course components that have the greatest impact on students' appreciation of, and concern for, the environment. Instructors as role models were also found to increase students' concern for the environment.

Finally, the data indicated that a number of course components indirectly contribute to positive course outcomes by helping to maximize the effectiveness of other course components, by increasing students' motivation while on the course, or

by facilitating the processing and transference of new information. Instructors' expectations, feedback, and competence were found to play an important role in helping to maximize the effectiveness of other course components. Interacting with other group members, relying on other group members, games and initiative activities, rock climbing, pleasant weather, and having fun were found to increase students' motivation while on course. The solo, the service project, and the course-end run were found to facilitate the processing and transference of new information.

Course Components that Negatively Affected Course Outcomes

The data indicated that a number of course components negatively affected the outcomes that some students experience as a result of their course. Course components that were found to have a direct, negative impact on students' self-concept, motivation, and interpersonal skills include failing to achieve success, the course-end run, working as a group, interacting with other group members, and the attitudes of other group members.

Course components that were found to directly limit the positive course outcomes students experienced include a lack of physical challenge, talking about home during a course, and instructors' expectations and personalities. Course components that were found to indirectly limit the positive outcomes that students experienced by decreasing their energy or motivation for their course include the weather and a lack of adequate food.

The Influence of Students' Characteristics

The quantitative and qualitative data suggested that certain characteristics of students contributed to determining course outcomes and the impact that various course components had on course outcomes. The quantitative data indicated that females experienced greater gains to their self-concept, motivation, and interpersonal skills as a result of OBWC courses than males did. In the quantitative data, there were no course components that were significantly more effective for one or the other of the genders. However, in the qualitative data, a high number of females reported positive outcomes as a result of challenge, rock climbing, and taking care of others.

The data suggested that a student's age was also a factor in determining how their course affected them. The quantitative data indicated that for females, over 40-year-olds' motivation and interpersonal skills are statistically significantly more affected by OBWC courses than 15 and 16-year-olds'. Females over 40-year-olds also reported a greater overall impact from the wilderness setting and relying on other group members than did 15 and 16-year-old females. No statistically significant differences were reported between males of different age groups. In the qualitative data, a high number of youths (under 19 years old) commented that being responsible for themselves had positively affected them. A high number of adults (19 and over) indicated that group discussions, the course-end run and the solo had positive effects on them. The comments of instructors suggested that group discussions and the solo are more valuable for adults, while independence is more important for youths.

The data indicated that a student's "population" is a factor in determining which course components will have the greatest impact on them. The quantitative data demonstrated no statistically significant differences in the outcomes experienced by

women on Women of Courage community courses (for female survivors of abuse) and women on public courses. The quantitative data indicated that Women of Courage students are statistically significantly more affected than women on public courses by relying on other group members, instructors' personalities, and instructors as role models. In the qualitative data, a disproportionately high number of Women of Courage students reported being affected by the course components of relying on other group members, instructors as role models, and taking care of others.

No differences in the outcomes experienced by youth on Vista community courses (for "youth at risk") and youth on public courses were indicated by the quantitative data. However, according to the quantitative data, Vista students are statistically significantly more affected than youth on public courses by adapting to an unfamiliar environment, being in the wilderness setting, and being challenged physically. In the qualitative data, a disproportionately high number of Vista students discussed being affected by the wilderness setting and working as a group.

Although no links to course outcomes could be determined from the qualitative comments of students, the data suggested that students had a variety of expectations when they began their OBWC courses, including developing their self-concept, interpersonal skills, and mountaineering skills. Several instructors commented that students' expectations contribute to determining the course outcomes they will experience.

Conclusions

The data presented in this chapter demonstrates that specific course components can be linked with specific positive course outcomes, that some course

components negatively affect course outcomes, and that the characteristics of students play a role in determining the outcomes they experience and the course components that cause those outcomes. The following chapter will explore the implications of these findings for theory, practice, and further research.

CHAPTER FIVE: SUMMARY AND IMPLICATIONS

Summary

The topic for this study was chosen after a review of the existing literature revealed that minimal research has examined how the outcomes associated with Outward Bound courses are achieved. These outcomes, which have been well documented in a number of research studies, include increases in students' self-awareness, self-concept, motivation, interpersonal skills, concern for others, and concern for the environment (e.g., Gillet et al., 1991; Hattie et al., 1997). This research study was designed to help gain a better understanding of the factors that are causing students to experience these types of course outcomes, with the objectives of enhancing theory, practice, and future research.

The study fits within the parameters of an interpretive case study (Merriam, 1991). As such, the bounded system under investigation is the process by which Outward Bound Western Canada (OBWC) course outcomes are achieved. To examine this process, four research questions were designed. These questions are:

1. Which course components contributed to which positive course outcomes?
2. Which course components negatively affected course outcomes?
3. How did the characteristics of students influence course outcomes?
4. How did the characteristics of students influence the impact that various course components had on course outcomes?

Both quantitative and qualitative data were collected to provide answers to these questions. Data were gathered from OBWC students through questionnaires, interviews, and observation and from OBWC instructors through interviews.

Analysis of the collected data provided specific answers to all four of the research questions. Twenty-nine course components emerged from the data as contributing to a variety of positive course outcomes including increased self-awareness, self-confidence, self-reliance, self-responsibility, motivation, interpersonal skills, concern for others, and concern for the environment. A number of course components were also found to cause negative course outcomes or to detract from positive course outcomes. Finally, the data indicated that students' gender, age, population, and expectations contributed to determining course outcomes and to the impact that various course components had on course outcomes.

Implications

As an interpretive case study, this study is intended to both describe the relationships among course components, students' characteristics, and course outcomes and to interpret how an understanding of these relationships can be used to inform theory, practice, and future research studies. With the results of the study now thoroughly described, the focus of this chapter will be on providing interpretations of the results.

Implications for Theory

Most case studies use inductive reasoning to allow “generalizations, concepts, or hypotheses [to] emerge from an examination of the data” (Merriam, 1991, p. 13). Using this method, theory is developed through the interpretation of the data, and is therefore “grounded” in the data (Neuman, 1997). Indeed, interpretation of the results of this study enabled grounded theory to be developed on how OBWC course outcomes are achieved. This section will outline the generated theory and discuss the study in relation to existing adventure education theory and larger theoretical issues.

Grounded Theory

The main theoretical argument derived from the results of this study is that specific course outcomes are influenced by a combination of course components and characteristics of students. This argument is grounded in five branches of theory that correspond to the five aspects of OBWC courses that influenced course outcomes in this study. These branches of theory pertain to course activities, the physical environment, instructors, the group, and students’ characteristics.

Course activities stand out as the most influential factor in determining course outcomes. However, in general, it is not the activities themselves that are key to achieving outcomes but the qualities they embody. All course activities can provide opportunities for students to be challenged, learn new skills, and achieve success. It is the combination of these qualities that causes activities, such as backpacking and having leadership responsibilities, to increase students’ self-concept and motivation.

Lest this suggest that current course activities could be replaced by any other activities that embodied these qualities, it should be noted that different activities cause

students to be challenged in different ways and to achieve success in different areas. For example, the activities of backpacking and having leadership responsibilities contain different challenges. Achieving success in each of these activities therefore leads to the development of slightly different aspects of students' self-concept. While backpacking increases students' self-concept by increasing their confidence in their ability to overcome challenges, having leadership responsibilities increases students' self-concept by increasing their confidence in their leadership abilities. As a result, it is probable that only activities that challenge students in the same way and to the same degree can be exchanged without affecting the course outcomes students experience.

In addition to the increases in students' self-concept and motivation caused by the qualities of course activities, a few course activities contribute to other course outcomes. Most notable is the one to three day solo included on most courses. This is a unique activity that encourages students to reflect and often leads to increases in their self-awareness.

The second branch of theory prompted by the study is concerned with the influence of the physical environment on course outcomes. Various characteristics of the physical environment provide challenge for students, such as the unfamiliarity of the environment and unpleasant weather. Achieving success in overcoming these challenges leads to increases in students' self-concept and motivation. However, by far the most influential aspect of the physical environment on OBWC courses is the wilderness setting. Being in a wilderness environment causes students to feel invigorated, alive, and peaceful. The potential risks of the environment force students to become more self-aware, and to develop their interpersonal skills and concern for

others. Being exposed to a remote wilderness environment is also important in increasing students' concern for the environment.

Interestingly, theory grounded in this study indicates that instructors strongly influence course outcomes. Not only is it important that instructors are well organized, skilled, and informative, but to maximize course outcomes they also need to provide suitable feedback and be appropriate role models. Instructors that espouse these qualities can increase students' self-awareness, motivation, self-concept, interpersonal skills, concern for others, and concern for the environment.

The fourth branch of theory developed from the results of this study pertains to the influence the group has on the achievement of course outcomes. Working and living as a group on courses of 7 to 36 days in length invariably leads to the development of conflict, interdependency, and friendships. Some of these interrelationships can be frustrating for students and can lead them to feel negatively affected by other group members. However, in almost all cases, students' interpersonal skills and concern for others are ultimately enhanced through the interactions with their group.

The fifth and final branch of theory derived from the results of this study is concerned with the influence the characteristics of students have on course outcomes. Students who participate in OBWC courses are of different genders, ages, and populations. These characteristics can contribute to determining the outcomes students experience as a result of their course, as well as to determining the parts of the course that have the greatest impact on students.

In this study females and older students experienced greater outcomes as a result of their courses than males and younger students; and females, older students,

“female survivors of abuse,” and “youth at risk” were more affected by certain course components than were their counterparts. As a result of the small sample sizes of some of these groups, it was not possible to conclude that all of these differences were a function of students’ characteristics. Although the results make it unwise to develop specific theories on how various characteristics of students affect the outcomes they experience, they do support the theory that students’ characteristics play a role in determining how course outcomes are achieved.

Articulation with Existing Theory

The theoretical framework grounded in the results of this study confirms much of the existing theory on how adventure education outcomes are achieved. The results of this study also extend existing theory by providing a more detailed understanding of the relationships among course components, students’ characteristics, and course outcomes. Finally, in a few cases, the results of the study appear to refute aspects of existing theory.

A number of theoretical and research sources (e.g., Conrad & Hedin, 1981; Iso-Ahola & Graefe, 1988; Walsh & Golins, 1976; Witman, 1995) have indicated that certain qualities of course activities are integral parts of achieving course outcomes. Challenge, the mastery of new skills, and achieving success are linked with positive course outcomes in the literature, as they were in this study. The findings of this study also support the literature’s claims (e.g., Walsh & Golins, 1976) that outcomes are enhanced by challenges that are holistic and that increase incrementally. This study extends the theory by indicating that specific course outcomes are influenced by

students having to be responsible for themselves and having fun, qualities of course activities that are not discussed in the literature.

In contrast to the views expressed in the literature (e.g., Bandura, 1997; Dyson, 1995; Marsh et al., 1986; Meyer & Wegner, 1998; Schoel et al., 1988; Witman, 1995), this study found that failure, personal choice, and individual and group goal setting do not cause considerable increases in course outcomes. The findings of this study suggest that failure decreases positive course outcomes and that personal choice has little affect on course outcomes. Although “setting and achieving goals” rated high in its impact on course outcomes in the quantitative data of this study, the qualitative data did not indicate any relationship with course outcomes. However, these discrepancies could be a result of the way these potential qualities of course activities are approached or framed on OBWC courses.

The only specific activities mentioned in relation to course outcomes in the literature are physical activities such as rock climbing and canoeing (e.g., Marsh, Richards, & Barnes, 1986). In addition to physical activities, this study clearly links activities such as the solo, leadership responsibilities, camp set-up and cooking, group discussions, the service project, and the final expedition with specific course outcomes.

The physical environment is also discussed in the literature as contributing to course outcomes. Several theoretical sources indicate that an unfamiliar environment can help students develop their self-awareness and self-concept (e.g., Kimball & Bacon, 1993; Nadler, 1993; Walsh & Golins, 1976), a proposition that is supported by this study. These same sources, as well as one research study by Hattie et al. (1997), suggest that a wilderness setting provides additional advantages and can increase students' self-awareness, self-concept, self-responsibility, as well as facilitate their

“personal restoration.” This study confirms that a wilderness setting can develop students’ self-awareness, self-confidence, and can result in feelings of peacefulness and invigoration. In addition, a wilderness setting can increase students’ concern for others and concern for the environment. No relationships between weather and course outcomes are identified in the literature, unlike the current study which found that weather can lead to increases in students’ self-confidence and indirectly affect course outcomes by affecting students’ motivation while on their course.

Multiple research studies have focused on aspects of instructors that influence course outcomes. A number of studies have identified relationships between course outcomes and instructors’ expectations, interpersonal skills, and personalities (e.g., Bartley & Williams, 1988; Brackenreg et al., 1994; Conrad & Hedin, 1981; Dyson, 1995; Hattie et al., 1997; Hendy, 1975; Hopkins, 1982; Hopkins & Putnam, 1993; Riggins, 1986; Thomas, 1985; Wood, 1978). The current study supports these findings and indicates that instructors’ expectations, feedback, and personalities can increase students’ self-concept, motivation, and interpersonal skills. The research literature also suggests that the biographical characteristics of instructors (e.g., age, education, etc.) can influence course outcomes (Aguir, 1986; Phipps & Claxton, 1997; Riggins, 1985), a relationship that is not addressed in the current study. This study extends existing theory by linking instructors as role models and the information provided by instructors with increases in students’ self-awareness, self-confidence, motivation, interpersonal skills, concern for others, and concern for the environment.

A number of theoretical studies and a few research studies discuss the influence of the group on the course outcomes students experience. The interdependency or reciprocity that exists within groups is described as increasing

students' sense that they are both valued and supported by other group members, and as forcing students to become more considerate of others' needs (Gass, 1995; Hopkins & Putnam, 1993). The literature also credits the group setting with giving students a sense of belonging (Walsh & Golins, 1976) and enabling them to explore their own values (Chapman, McPhee, & Proudman, 1995). One research study links personal relations with other group members with enhanced personal and social development (Conrad & Hedin, 1981), while several studies indicate that group size can influence course outcomes (e.g., Riggins, 1986; Walsh & Golins, 1976). The current study found that working as a group, relying on other group members, interacting with other group members, and trying new behaviors in the group setting can increase students' self-awareness, self-confidence, motivation, interpersonal skills, concern for others, and concern for the environment.

A number of theoretical and research sources have explored the relationships between the characteristics of students and course outcomes. There are a variety of views in the literature on whether students' genders (e.g., Estes & Ewert, 1988; Hattie et al., 1997; Witman, 1995) and backgrounds (e.g., Conrad & Hedin, 1981; Ewert, 1989; Hattie et al., 1997) influence course outcomes. In the study reported in this document, females, Women of Courage students, and Vista students were found to experience greater increases in course outcomes than their counterparts. With regards to the effects of age on course outcomes, previous research suggests that wilderness-based adventure education programs cause adults to experience greater positive course outcomes than youth (Conrad & Hedin, 1981; Hattie et al., 1997), a finding which is supported by the results of this study. Several sources also propose a link between students' expectations and the outcomes they experience as a result of their course

(e.g., Hopkins, 1982; Walsh & Golins, 1976), as does the current study. Unlike this study, the literature does not discuss whether the characteristics of students influence the impact the various course components have on course outcomes.

This study also extends existing theory by indicating that a number of course components can indirectly influence course outcomes by increasing students' motivation while on course, including having fun, rock climbing, games and initiative activities, pleasant weather, interacting with other group members, and relying on other group members. In addition, this study demonstrates that certain course components can decrease positive course outcomes or cause students to experience negative outcomes. These course components were found to include failing to achieve success, a lack of physical challenge, the course-end run, working and interacting with the group, instructors' expectations and personalities, the weather, and a lack of adequate food.

Articulation with Larger Theoretical Issues

This study also has implications for theory beyond the field of adventure education. By exploring the process by which OBWC course outcomes are achieved, this study provides insight into the nature of human existence in contemporary North America. This insight is particularly informative when viewed in relationship to the theories of a number of eminent thinkers, including Mihaly Csikszentmihalyi, Joseph Kupfer, William Glasser, and Viktor Frankl.

As a result of reading the OBWC brochure or talking to other people, most students who register for a course are aware that they have signed up for something that will attempt to act as a catalyst for change in their lives. This, along with the

expectations expressed by the students who participated in this study, indicates that many students who register for OBWC courses are looking for change. The fact that thousands of people each year are enrolling in OBWC and other North American Outward Bound schools' courses seems symptomatic of the state of discontent experienced by many North Americans. While their physical (e.g., food, shelter) and emotional (e.g., love) might be being met, it appears that many North Americans are feeling a need for something more. It seems to me that what they are seeking is more meaning in their lives.

Csikszentmihalyi, Kupfer, Glasser, and Frankl all theorize on how to find meaning in life. Although described in different terms, the ways of finding meaning described by these individuals are similar, and perhaps even identical. In Flow: The Psychology of Optimal Experience (1990), Csikszentmihalyi describes how “optimal experiences” can be strung together to create a life rich in experience and meaning. He defines optimal experiences as those moments when a person is stretched to their limits physically or mentally in a voluntary effort to achieve something difficult and worthwhile (p. 3). According to Csikszentmihalyi, an optimal experience results in growth (an increase in complexity of the self) through the processes of differentiation and integration, where differentiation can be defined as a “movement towards uniqueness” and integration as a “union with other people” (p. 41). He explains how stringing together optimal experiences into “life themes,” or ultimate goals that give significance to whatever a person does, can give greater meaning to people’s lives (p. 230).

In Experience as Art: Aesthetics in Everyday Life (1983), Kupfer discusses the concept of “aesthetic experience,” which can be defined as “intrinsically valuable or

valued, worth having because of its inherent qualities and relations...furthering the overall intellectual, emotional, physical, and social growth of the individual” (pp. 2-4). This notion of aesthetic experience closely parallels that of Csikszentmihalyi’s optimal experience, and likewise, is proffered as a means of finding greater satisfaction in life.

Glasser’s “positive addiction” described in Stations of the Mind: New Directions for Reality Therapy (1981) can be considered to be an addiction to optimal or aesthetic experiences. Glasser explains positive addiction as a penchant for behaviors such as running or meditating which enable an individual to grow stronger and function better in all aspects of their life. Based on his “control theory,” Glasser identifies positive addiction experiences as ideal “lack of perceptual error” states of being towards which we should all strive in order to find greater peace in our lives (p. 250).

Finally, in Man’s Search for Meaning (1984), Frankl proposes that meaning can be achieved (a) by creating a work or doing a deed, (ii) by experiencing something or encountering someone, or (c) by the attitude we take to unavoidable suffering (p. 115). Through self-transcendence at the “macro” level, an individual becomes absorbed and enriched at the “micro” level and is more content in their day-to-day life. Frankl explains that “the more one forgets oneself – by giving oneself to a cause to serve or another person to love – the more human he [sic] is and the more he actualizes himself” (p. 115).

The closely related theories of Csikszentmihalyi, Kupfer, Glasser, and Frankl can both enhance, and be informed by, understanding how course outcomes are achieved on OBWC courses. Judging from the comments of OBWC graduates and the results of other studies, many of the individuals who enroll in Outward Bound courses

seeking greater “happiness” do find some of the change they are looking for. The positive course outcomes reported by students, such as increases in self-confidence, interpersonal skills, concern for others, and so on, can be viewed as means to help students achieve the end of greater meaning in their lives. For example, confidence on its own does not ensure happiness, but it can help students achieve meaning in life through increased motivation and accomplishment. Likewise, interpersonal skills are helpful in finding meaning in life through healthy and caring relationships.

In addition to helping students achieve more meaning in their lives through the development of these types of outcomes, OBWC courses provide opportunities for students to get in the habit of having optimal experiences (Csikszentmihalyi, 1990), aesthetic experiences (Kupfer, 1983), or a lack of perceptual error (Glasser, 1981). OBWC courses provide students with a continuum of these kinds of experiences through physical and mental challenges, success, reflection, and so on. Becoming used to having these types of experiences may cause students to actively seek out similarly engaging experiences once their courses are completed. By experiencing the exhilaration of the cycle of challenge and growth, students may continue to choose challenge over relaxation, and thus, may continue to grow and experience meaning in their lives.

Finally, OBWC courses may also help students find more meaning in their lives by providing opportunities for reflection on their “life themes” (Csikszentmihalyi, 1990). Being removed from their everyday setting, getting “back to basics,” and being encouraged to reflect on their values and goals seems to cause many students to leave their course feeling inspired and with a renewed perspective on the meaning their life has for them.

The idea that many students enroll in an OBWC course hoping that it will affect change in their life and often find what they are looking for, provides insight into the nature of human existence in present-day North America. It suggests that many North Americans are discontented and indicates that this is a state that can be changed through helping people to find more meaning in their lives. The theories of Csikszentmihalyi, Kupfer, Glasser, and Frankl support, and are themselves strengthened, by these conclusions.

Implications for Practice

Interpretation of the theory and findings generated by this study reveals many potential implications for practice at OBWC and other adventure education organizations. This section will summarize these implications.

At Outward Bound Western Canada

This study has a variety of potential implications for practice at OBWC. By reading Chapter 4 of this study, OBWC management and instructors may gain a deeper understanding of how course outcomes are achieved. In addition, this section will provide some suggestions on how the theory and findings generated by this study might be used by management and instructors to enhance courses. This combination of resources may assist management in making decisions about course design and instructor training and might inform instructors' many decisions regarding course design and delivery.

A number of course components stand out as being particularly important in determining specific course outcomes. These include the solo on self-awareness, achieving individual success and being challenged on self-confidence and self-reliance, interacting and working as a group and instructors as role models on interpersonal skills, working as a group and taking care of others on concern for others, and the curricula and the wilderness setting on concern for the environment. Although many of these relationships seem to be “common sense,” a more conscious awareness of these links on the part of management and instructors could result in even greater gains in the respective outcomes. Management could help instructors increase their awareness of these relationships and develop related skills, while instructors could take specific steps to increase course outcomes. For example, more instructors could introduce the solo to students as a time to increase self-awareness and could give out specific journal questions aimed at developing self-awareness. Moreover, a greater number of instructors could actively foster the development of interpersonal skills by ensuring they were role modeling good interpersonal skills.

The fact that failing to achieve success and a lack of physical challenge were found to decrease positive course outcomes reinforces the importance of ensuring that students achieve individual success and are physically challenged. As stated above, achieving success and being challenged were found to cause the greatest increases in students’ self-confidence and self-reliance. These results suggest that instructors should do everything they can to ensure that students are adequately challenged and achieve success in course activities. Perhaps instructor training could include discussions of ways to ensure that all students are challenged, such as including incrementally increasing challenges and splitting up the group. Similarly, instructor

training could include suggestions for helping students to feel successful in all activities, such as ideas for appropriate framing and feedback techniques.

As discussed earlier, the study's findings regarding failure, personal choice, and goal setting contradict the views expressed in the literature. While the literature indicated that these qualities of course activities increase course outcomes, this study found they had a negative or minimally positive impact on course outcomes. While it is feasible that the results of this study are more accurate than the existing literature, the possibility should not be ruled out that these discrepancies are a result of the way these potential qualities of course activities are approached or framed by OBWC instructors. This possibility has a variety of potential implications for management and instructors making decisions about instructor training, course design, and course delivery.

Because "failure" is sometimes unavoidable, more instructors could develop their skills at reframing failures into learning opportunities, and therefore, into successes. OBWC could also explore the potential benefits of making students more aware that they are constantly making choices regarding their level of involvement in their courses. Finally, management and instructors could consider including goal setting as a regular part of OBWC courses. Developing students' goal setting habits on course could potentially help them feel empowered to achieve their goals once back in their home environments.

In contrast to the views of a number of instructors and some of the literature (e.g., Walsh & Golins, 1976), the findings indicated that instructors are an important factor in determining course outcomes. Instructors were found to maximize the effectiveness of other course components by having appropriate expectations, giving

encouraging feedback, and being competent. In addition, the data showed that instructors directly increased positive course outcomes as a result of their feedback, personalities, and impact as role models. Instructors' feedback was found to contribute to students' motivation (defined as desire to learn and achieve), and instructors' personalities and instructors as role models were found to contribute to students' self-awareness, motivation, interpersonal skills, and concern for the environment. Most notable is the fact that both the quantitative and qualitative data indicated that instructors as role models made a greater contribution to students' interpersonal skills than almost all other course components. In support of these findings, the qualitative data also suggested that instructors reduced positive course outcomes when they demonstrated less than ideal interpersonal skills.

These findings imply that it is important for instructors to be aware that their feedback, personalities, and behaviors as role models affect the outcomes that students experience. With this knowledge, perhaps instructors could be more conscious of controlling their interactions with others to try and ensure that they are positively influencing students. Instructor evaluations by supervisors and instructor training could be useful in helping instructors achieve the types of feedback and behaviors that are most likely to positively affect students.

It is also valuable to note that the qualitative data indicated that the curricula presented by instructors increased students' concern for others and concern for the environment. Students indicated that "compassion curriculum," low environmental impact information, and natural history lessons contributed to these course outcomes. Instructor training in these areas, and instructor commitment to teaching these topics, could further increase outcomes.

Group discussions stand out in their apparent lack of direct impact on course outcomes. In the quantitative data, group discussions were ranked in the bottom 8 out of 28 course components for impact on self-concept, motivation, and interpersonal skills. In the qualitative data, only 11 students made comments indicating that group discussions had affected their self-awareness, self-confidence, or interpersonal skills. Instructors' comments ranged from views that group discussions did not increase positive outcomes to views that they increased self-awareness and interpersonal skills. These results imply that perhaps group discussions on many OBWC courses are not as effective as they could be. Instructor training aimed at developing instructors' group discussion skills could be useful in increasing the course outcomes achieved as a result of group discussions.

The results of the study indicated that working as a group, the attitudes of other group members, and interacting with other group members can decrease the positive course outcomes experienced by some students. Other students not doing their share of the work, complaining, and being difficult to get along with were highlighted in the qualitative data as reasons for decreases in positive course outcomes. Perhaps instructors could help turn potentially negative experiences into increased positive outcomes by providing more tools for students to use to work through these types of issues. For example, ensuring that a chore roster is created and providing regular venues for students to express to the group how others are affecting them could both empower students and help them realize the impact that their actions have on others.

Getting lost on the course-end run and having unsanitary or insufficient food were also found to reduce positive course outcomes. Preventing these logistical

problems would be quite easy and could result in increased positive course outcomes for some students.

In the data on the impact of students' characteristics, it is interesting to note that the course component of relying on other group members was found to have a greater impact on females than males, adults than youth, and Women of Courage than women on public courses. Perhaps this is because these groups are less used to being supported by others than the groups with which they were being compared. These findings imply that it is important for instructors to step back when possible and allow group members to rely on each other.

Several other findings provide useful information for management and instructors planning courses for different genders, ages, and populations. The data suggested that rock climbing was particularly effective for females and that having to be responsible for oneself was especially valuable for youths. The data also indicated that group discussions, the course-end run, and the solo had more of an impact on adults than on youth, and that good instructor role models were a key component of Women of Courage courses. These results should be taken into consideration in the planning phase of OBWC courses for special populations.

At Other Adventure Education Organizations

This study also has potential implications for other adventure education organizations. Although the objectives and content of courses may be different at other organizations, they may be similar enough to enable management and instructors to gain insight from this study. The "thick description" (Denzin, 1989) included in the study's findings enables "judgments of transferability" by providing sufficient

information to allow the reader to make comparisons to another setting (Lincoln & Guba, 1985, p. 359). By comparing and transferring the findings to their own work site, management and instructors at other organizations may be able to gain a better understanding of how their course outcomes are achieved, and as a result, enhance the design and delivery of their courses. It is also possible that this study will prompt other adventure education organizations to instigate research studies that will help them gain a better understanding of how course outcomes are achieved on their own courses.

Implications for Further Research

This study has a variety of implications for further research. By filling in a number of gaps in the adventure education research base, this study enables future researchers to pick up where this study leaves off and to further develop understanding of how course outcomes are achieved. The study also provides a wealth of information on data collection techniques. It is one of relatively few examples of how to conduct qualitative research in the field of adventure education and has pioneered the use of a quantitative matrix to collect people's perception of how various aspects of a course affect them. This section will take a more in-depth look at these implications for future research.

This study took a broad look at how OBWC course outcomes are achieved and, as a result, enabled the development of quite comprehensive research-based theories that confirm, extend, and question previously existing theory. In doing this it has provided the potential for future studies to begin with the results of this study and move forward from here. With a better understanding of the "big picture" of how

outcomes are achieved, future studies will be able to narrow their focus to provide more in-depth information on the relationships among course components, students' characteristics, and course outcomes. Some areas requiring more in-depth study are identified in the following research questions:

1. How can specific course activities, such as backpacking or the solo, be adapted to achieve maximum course outcomes?
2. How do various aspects of the wilderness environment (e.g., remoteness, beauty, risk, etc.) influence course outcomes?
3. How much of an influence does the instructor have on course outcomes? This could be explored by undertaking pre and post-course course outcome tests and comparing the results of students on courses instructed by different people.
4. How do the biographical characteristics of instructors (e.g., age, education, experience, etc.) influence course outcomes?
5. How do the genders, ages, and backgrounds of students combined in a group influence course outcomes?
6. How do students' expectations of their course influence course outcomes?
7. How does course length influence course outcomes?

The quantitative and qualitative data collection techniques used in this study also have implications for future research studies. As one of relatively few qualitative studies in the field of adventure education, this study might be useful as a prototype for future researchers who chose to design qualitative studies on similar topics.

A number of specific suggestions for future qualitative data collection also arise out of the study. One limitation of this study was that most of the data came from students who had recently completed their OBWC course. With only a few hours,

days, or weeks between them and their course, it seems unlikely that students would have a full understanding of if, and how, their course had affected them. This suggests that future researchers who conduct studies on similar topics would be advised to collect data from graduates when possible. Collecting data in more equal numbers from different genders and different age groups would also simplify data analysis and enable more conclusions to be drawn. In particular, it would allow a two-way analysis of variance to be conducted to identify the separate effects of students' genders and ages on course outcomes and on the course components that cause course outcomes.

The views of instructors were useful in that they provided another perspective on what was causing students to experience course outcomes. However, in cases where the data provided by instructors contradict that provided by students, it is important to remember that instructors' views may be based on existing theory or on misconceptions to which they have been exposed in their training. Placing too much weight on the views of instructors could result in theory perpetuating itself in research.

The matrix included in the questionnaire to collect quantitative data seemed to work well. The data collected from this matrix usually corresponded with the qualitative data collected, suggesting that it was accurate. In retrospect, a few more course components could have been included in the matrix, such as rock climbing and games and initiative activities. The use of similar matrices in future studies is recommended.

Final Thoughts

This research study set out to investigate how OBWC course outcomes are achieved. By examining data from questionnaires completed by students, from

interviews with students, and from interviews with instructors, answers to the four research questions were identified. The data indicated which course components increased which positive course outcomes, which course components negatively affected course outcomes, and how the characteristics of students influenced the outcomes they experienced and the course components that caused those outcomes. The results of the study were then interpreted and used to develop theory, to provide suggestions for enhancing OBWC and other adventure education courses, and to initiate ideas for future research. It can be concluded that the study met its objective of developing a better understanding of how OBWC course outcomes are achieved in order to advance theory, practice, and further research.

In the process of exploring the relationships among OBWC course components, characteristics of students, and course outcomes, I have gained a greater appreciation of the value of Outward Bound courses. I have seen students change as they progress through their courses, and I have felt their excitement and appreciation. These experiences renewed my commitment to discovering how courses “work” in order to ensure that future courses will be of equal or greater quality. This study has taken a step towards gaining a greater understanding of how course outcomes are achieved. Hopefully other researchers and practitioners will also see the value of developing this understanding, will instigate more research in this area, and will use research to further enhance adventure education practice.

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Appendix A: Questionnaire

OUTWARD BOUND RESEARCH SURVEY

Course name: _____ Course dates: _____

Instructors: _____ Today's date: _____

Age: _____ Gender: _____ Occupation: _____

Section A: This section of the questionnaire has been designed to get your feedback on the relationship between various characteristics of your course (left-hand column) and the impact the course has had on your self-concept, motivation, and interpersonal skills (top row). **Please use the following scale to rate the impacts various aspects of the course had on you as a person:**

-5	-4	-3	-2	-1	0	1	2	3	4	5
Highly Negative Impact			No Impact				Highly Positive Impact			

CROSS OUT any items in the **left-hand column** that you feel were **not** included in your course.

<u>Impact on your...</u>	Self-concept (e.g., self-reliance & self-confidence)	Motivation (i.e., desire to learn & achieve)	Interpersonal skills (e.g., cooperation & communication)
Solo			
Service project			
Course end run			
Adapting to an unfamiliar environment			
The wilderness setting			
Being challenged physically			
Being scared before or during activities			
Setting and achieving goals			
Achieving individual success			
Achieving group success			
Failing to achieve success			
Learning new skills			
Choosing your level of involvement in activities			

<u>Impact on your...</u>	Self-concept (e.g., self-reliance & self-confidence)	Self-motivation (i.e., desire to learn & achieve)	Interpersonal skills (e.g., cooperation & communication)
Trying out new behaviors			
Problem solving as a group			
Relying on other group members			
Taking responsibility for yourself			
Having leadership responsibilities			
Informal conversations			
Structured discussions/debriefings			
Talking about home during the course			
Reflection (e.g., journal writing & thinking)			
Your relationships with other group members			
Attitudes of other group members			
Instructors' personalities			
Instructors' expectations			
Instructors' feedback			
Instructors as role models			
Others:			

Section B:

1. What aspect of the course had the strongest positive impact on you? Please describe this aspect of the course and how it affected you.

2. What aspect of the course had the strongest negative impact on you? Please describe this aspect of the course and how it affected you.

3. Please rate the impact the course had on your sense of responsibility and concern for others (from -5 to 5), and explain what characteristics of the course caused this level of impact.

4. Please rate the impact the course had on your concern for the natural environment (from -5 to 5), and explain what characteristics of the course caused this level of impact.

5. What were your expectations for the course before it began?

6. What outdoor experience did you have prior to the course?

Please provide the following information if you are willing to be contacted for clarification of your responses or possibly for a telephone or in-person interview:

Name: _____ Phone number: _____

Appendix B : Questionnaire Cover Letter

Outward Bound Western Canada
RR #1, Pemberton
British Columbia
V0N 2L0
(604) 894-6743

Dear Outward Bound student,

Enclosed is a questionnaire designed to collect information on if and why Outward Bound courses are effective. The questionnaire is part of a research study on the relationships between Outward Bound course characteristics and course outcomes.

The results of the study will be used to make Outward Bound courses more effective. Results will be available through Outward Bound Western Canada in May 2000 and may also be published. If you have any questions about the study please contact Marcia McKenzie at (250) 868-2184 (mmckenzi@ed.brocku.ca) or Dr. Coral Mitchell at (905) 688-5550 (cmitchel@ed.brocku.ca).

There are no right or wrong answers to the questionnaire and your responses will be kept strictly confidential. Please ensure you also complete the enclosed consent form and return it with the questionnaire in the self-addressed and stamped envelope.

Your time and input are very much appreciated.

Sincerely,

Marcia McKenzie

Master of Education Candidate
Brock University, St. Catharines, Ontario

Appendix C: Consent Form for Group 1

BROCK UNIVERSITY DEPARTMENT OF EDUCATION

Informed Consent Form – Participant Group 1

Title of Study: “Why are Outward Bound courses effective?: The relationships between course characteristics and outcomes”

Researcher: Marcia McKenzie

Faculty Advisor: Dr. Coral Mitchell

Name of Participant (please print): _____

I understand that this study in which I have agreed to participate will involve completing a three-page questionnaire and, if I wish, may involve a formal interview at a time and place convenient to me.

I understand that my participation in this study is voluntary and that I may choose not to participate in the study. I understand that there is no obligation to answer any question/participate in any aspect of this project that I consider invasive.

I understand that all personal data will be kept strictly confidential and that all information will be coded so that my name is not associated with my answers. I understand that only the researcher and faculty advisor named above will have access to the data.

Participant’s Signature: _____ **Date:** _____

If you have any questions or concerns about your participation in the study, you can contact Marcia McKenzie at (250) 868-2184 (mmckenzi@ed.brocku.ca) or Dr. Mitchell at (905) 688-5550, extension 4413 (cmitchel@ed.brocku.ca).

Thank you for your participation in this research study. The study results will be available through Outward Bound Western Canada in May 2000. Copies of this form for your reference or more information on the study are available upon request.

Appendix D: Introduction for Groups 2-4

This introduction was used in this form for Group 2 and was slightly adapted for use with Groups 3 and 4.

1. My name is Marcia McKenzie. I am a Master of Education student doing research on the relationships between course characteristics and outcomes.
2. I am studying this because I am interested in helping make Outward Bound Western Canada courses more effective.
3. I will make the results available to Outward Bound Western Canada as well as possibly publish them.
4. I will be observing as well as instructing on the course and may occasionally take notes. During the course I may ask you questions on recent course events and on how you feel you are being affected by the course. Although at times these questions may be difficult to answer, they will give you an added opportunity to discussion and reflection. At the end of the course I will give you a self-addressed and stamped questionnaire to complete and send back to me, and will ask if you would be interested in participating in an interview at a place and time of your convenience.
5. All information provided during interviews or in questionnaires will be kept strictly confidential. All names will be changed for publication.
6. I am present not to evaluate or judge. There are no right or wrong answers.
7. Participation in this study is completely optional. For those who decide they would like to participate, your participation can be withdrawn at any time during the study.

Appendix E: Consent Form for Group 2

BROCK UNIVERSITY DEPARTMENT OF EDUCATION

Informed Consent Form – Participant Group 2

Title of Study: “Why are Outward Bound courses effective?: The relationships between course characteristics and outcomes”

Researcher: Marcia McKenzie

Faculty Advisor: Dr. Coral Mitchell

Name of Participant (please print): _____

I understand that this study in which I have agreed to participate will involve being observed, engaging in informal interview “conversations” with the researcher several times during the course, completing a three page questionnaire following the course, and if I wish, may include a formal interview following the course at a time and place convenient to me.

I understand that my participation in this study is voluntary and that I may withdraw from the study at any time and for any reason without penalty. I understand that there is no obligation to answer any question/participate in any aspect of this project that I consider invasive.

I understand that all personal data will be kept strictly confidential and that all information will be coded so that my name is not associated with my answers. I understand that only the researcher and faculty advisor named above will have access to the data.

Participant’s Signature: _____ **Date:** _____

If you have any questions or concerns about your participation in the study, please contact Marcia McKenzie at (250) 868-2184 (mmckenzi@ed.brocku.ca) or Dr. Mitchell at (905) 688-5550, extension 4413 (cmitchel@ed.brocku.ca).

Thank you for your participation in this research study. The study results will be available through Outward Bound Western Canada in May 2000. Copies of this form for your reference or more information on the study are available upon request.

I have fully explained the procedures of this study to the above volunteer.

Researcher’s Signature: _____ **Date:** _____

Appendix F : Formative Interview Guide

1. How is the course going for you?
2. Are you glad that you are on the course? Why or why not?
3. Do you think the course is affecting you in any way that will carry over to your life back home?
4. What factors do you think are causing the course to affect you in this/these ways?
5. Are there any parts of the course that you feel will affect you negatively in the long-term?
6. What are your goals for the rest of the course and how can you achieve them?
7. Do you have any feedback for the instructors?

Appendix G: Summative Interview Guide

1. How long ago did you take your Outward Bound course?
2. How old were you when you took your course?
3. Approximately how long was your course?
4. Do you remember what types of activities you did on your course?
5. Do you think your course had any impact on you as a person?
6. What aspects of your experience do you think were responsible for these impacts?
7. Were there any aspects of the course that you feel were unnecessary or that had negative impacts on you?
8. How do you feel the following aspects of your course changed you as a person:
 - a) Interacting with other group members?
 - b) Instructors?
 - c) Group discussions?
 - d) The wilderness environment?
 - e) The solo?
 - f) Games and initiative activities?
 - g) Rock climbing?
 - h) Backpacking/mountaineering?
 - i) The course-end service project?
 - j) The course-end run?
 - k) Is there anything else you would like to add to this list?
9. Do you have any other comments or questions?

Appendix H : Instructor Interview Guide

1. How long have you been instructing at Outward Bound?
2. What impact, if any, do you think Outward Bound courses have on students?
3. What components of courses do you think are responsible for these impacts? If possible, please be specific and give examples.
4. Do you think there are any aspects of Outward Bound courses that are unnecessary or that have negative impacts on students?
5. In general, what impact do you think each of the following course components has on students? Why do you feel this way?
 - a) Interacting with other group members/relationships with other group members?
 - b) Instructors?
 - c) Group discussions?
 - d) Being in the wilderness environment?
 - e) The solo?
 - f) Games and initiative activities?
 - g) Rock climbing?
 - h) Backpacking/mountaineering?
 - i) Course-end service project?
 - j) Course-end run?
 - k) Are there any other course components that you would like to add to this list as being important to the success of Outward Bound courses?

6. Do you think that the course components that are most/least valuable for students are different for different populations (i.e., for males, females, youth, adults, WOC, Vista?)
7. Do you have any other comments you would like to make?
8. Do you have any questions about the study or about anything else?

Appendix I: Consent Form for Group 4

BROCK UNIVERSITY DEPARTMENT OF EDUCATION

Informed Consent Form – Group 4

Title of Study: “Why are Outward Bound courses effective?: The relationships between course characteristics and outcomes”

Researcher: Marcia McKenzie

Faculty Advisor: Dr. Coral Mitchell

Name of Participant (please print): _____

I understand that this study in which I have agreed to participate may involve engaging in informal interview “conversations” with the researcher during courses and if I wish, may include a formal interview at a time and place convenient to me.

I understand that my participation in this study is voluntary and that I may withdraw from the study at any time and for any reason without penalty. I understand that there is no obligation to answer any question/participate in any aspect of this project that I consider invasive.

I understand that all personal data will be kept strictly confidential and that all information will be coded so that my name is not associated with my answers. I understand that only the researcher and faculty advisor named above will have access to the data.

Participant’s Signature: _____ **Date:** _____

If you have any questions or concerns about your participation in the study, please contact Marcia McKenzie at (250) 868-2184 (mmckenzi@ed.brocku.ca) or Dr. Mitchell at (905) 688-5550, extension 4413 (cmitchel@ed.brocku.ca).

Thank you for your participation in this research study. The study results will be available through Outward Bound Western Canada in May 2000. Copies of this form for your reference or more information on the study are available upon request.

I have fully explained the procedures of this study to the above volunteer.

Researcher’s Signature: _____ **Date:** _____

Appendix J : Questionnaire Pilot Focus Group Questions

1. Approximately how long did it take you to complete the questionnaire? Did it seem like too long?
2. Did you find the questionnaire boring or tedious to complete?
3. Did you find the questionnaire interesting or worthwhile to complete?
4. Were the instructions to Section A clear and understandable?
5. Were the questions in Section B clear and understandable?
6. If you had received this questionnaire with a self-addressed and stamped envelope at the end of your course do you think you would have completed it and put it in the mail?
7. Do you have any other suggestions for improvements to the questionnaire?