

An Investigation of Participants' Intended and Actual Transfer of Learning Following an Outward Bound Wilderness Experience

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Abstract

The purpose of this study was to better understand the lessons that students intended to transfer home from an Outward Bound wilderness course and what actual learning they had used 2 years postcourse. Participants had completed an open-enrollment course during the 2009 summer at the North Carolina Outward Bound School. The primarily qualitative data were collected via a written survey at the end of their experience ($n = 369$) and 2 years following via an online survey ($n = 30$). The results indicate the experience made a positive difference in the lives of many participants at the conclusion of the course and 2 years later. The themes that emerged 2 years later included (a) increased self-confidence and self-reliance, (b) interpersonal effectiveness, and (c) mental strength. The data indicate a consistency between participants' intended and actual transfer of learning and also new learning that emerged over time.

KEYWORDS: transfer of learning; Outward Bound; wilderness experience program; positive youth development

Many researchers have documented outcomes of the Outward Bound (OB) wilderness program experience (Hattie, Marsh, Neil, & Richards, 1997). More recently, scholars have identified a need to examine the benefits and outcomes of the entire wilderness experience program (Gass, 1999; Holman & McAvoy, 2005; Paxton & McAvoy, 2000) and to investigate specific program components and their influence on overall participant outcomes (Ewert & McAvoy, 2000; McKenzie, 2000; Schumann, Paisley, Sibthorp, & Gookin, 2009). Furthermore, interest has been growing regarding the degree to which these benefits and outcomes are transferred to participants' everyday lives and whether these changes persist (Sibthorp, Furman, Paisley, Gookin, & Shumann, 2011; Sibthorp, Paisley, Furman, & Gookin, 2008; Whittington, 2011). In wilderness experience programs, student transfer of learning continues to be promoted as a key goal. Recent research has been focused on mechanisms (e.g., curriculum, course components, pedagogy) that enhance transfer of learning (Daniel, Bobilya, Kalisch, & Lindley, 2010; Sibthorp et al., 2011) and the meaning these programs hold over time (Daniel, 2003; Gass, Garvey, & Sugerma, 2003; Gassner, Kahlid, & Russell, 2006; Goldenberg, McAvoy, & Klenosky, 2005). However, there is a continued need to investigate if participants are able to transfer lessons learned to their everyday lives and determine if they are the same ones identified at the end of the program (Houge Mackenzie, Son, & Hollenhorst, 2014). In some retrospective studies (e.g., Daniel, 2003; Gass et al., 2003; Kellert, 1998), researchers have documented what participants remember learning over time and what lessons they still use today, but few researchers have compared what participants intend to transfer and what they do transfer to their home environment (Daniel et al., 2010). Transfer of learning is a primary goal in many wilderness programs, but it is often difficult to study. The purpose of this study was to better understand the lessons that students intended to transfer to their everyday lives from an OB wilderness course and what lessons they used over the 2 years following their course.

Review of Literature

Transfer of Learning

Transfer of learning is the process by which a person uses what is learned in one setting or situation in subsequent situations (Gass, 1999). Dewey (1938) described transfer of learning as the process by which "every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after" (p. 35). Several possible outcomes have been identified related to transfer of learning at the end of wilderness courses: (a) no transfer of learning takes place, (b) some or most of the lessons are intentionally transferred home, and (c) some lessons are unintentionally transferred (Daniel et al., 2010). Studies that have been conducted on transfer of learning in adventure education and wilderness program contexts have primarily been focused on the content that is transferred home (e.g., Daniel et al., 2010; Gass et al., 2003; Holman & McAvoy, 2005; Miller, 2001; Sibthorp et al., 2008). There has been little research into the processes by which transfer occurs or strategies and influencing factors that encourage transfer (Daniel et al., 2010; Sibthorp et al., 2011). Despite the limited research, several factors have been identified that contribute to transfer of learning. Some scholars have suggested the intent to transfer learning is a likely first step in the transfer of learning (Axtell, Maitlis, & Yearta, 1997).

Several types of transfer of learning have been identified in the literature. Gass (1985) categorized transfer of learning as specific, nonspecific, and metaphoric. Specific transfer refers to a subsequent task that is similar to the original task. Nonspecific transfer involves applying learned attitudes and behaviors to a completely new situation. A classic example might involve using the conflict resolution skills learned during an adventure program to resolve conflicts at school or at home. Metaphoric transfer is when two similar learning environments have similar structures. For example, a student who develops strategies for dealing with the fear of being alone on a

wilderness solo might be able to use those strategies when dealing with being excluded from a peer group at home. All three types of transfer are potentially applicable to wilderness experience programs similar to the one in this study. Because the specific tasks encountered during the wilderness program may be different from those back home, nonspecific and metaphoric transfer of learning are often the most useful when participants return home. A number of influencing factors, methods, and mechanisms of transfer have been identified in the literature (e.g., Daniel et al., 2010; Sibthorp et al., 2011) that may be helpful in better understanding this transfer of learning in general and within outdoor and adventure programming specifically (see Table 1).

Table 1

Factors, Methods, and Mechanisms Affecting Transfer of Learning

Factor/method/mechanism	Supporting studies
Feedback	Burke & Hutchins, 2007; Gardner & Korth, 1997; Simons, 1999
Focused processing techniques and follow-up experiences	Gass, 1999
Goal setting and action plans	Billing, 2007; Foxon, 1994; Gass, 1999; Pugh & Bergin, 2006; Yamnill & McLean, 2001; Yorks, Lamm, & O'Neil, 1999
Instructors	Sibthorp et al., 2008
Learner characteristics	Baldwin & Ford, 1988
Metaphor and analogy	Alexander & Murphy, 1999; Billing, 2007; Gass, 1999; Luckner & Nadler, 1997; Mayer & Wittrock, 1996
Motivation and intent to transfer	Axtell et al., 1997; Daniel et al., 2010; Pugh & Bergin, 2006
Opportunities to practice skills	Gaudine & Saks, 2004; Lim & Morris, 2006
Practice	Burke & Hutchins, 2007; Donovan & Radosevich, 1999
Experience serves as a reference point	Bruner, 1987; Daniel, 2003; McAdams, 1988
Relevance and utility of the training	Baldwin & Ford, 1988; Billing, 2007; Ford, Smith, Weissbein, Gully, & Salas, 1998; Holladay & Quinones, 2003; Pugh & Bergin, 2006; Ruona, Leimbach, Holton, & Bates, 2002
Teaching and instructional strategies used	Billing, 2007; Burke & Hutchins, 2007
Role modeling	Paisley, Furman, Sibthorp, & Gookin, 2008
Experiential or active learning	Cox, 1997; Haskell, 2001; Mayer & Wittrock, 1996

One factor that influences transfer of learning is the degree to which participants view the experience as a reference point. Reference points are described as experiences deemed most important when people tell their life story (Bruner, 1987; McAdams, 1988). Luckner and Nadler (1997) suggested this criterion can be used to separate bland experiences from extraordinary ones. Reference points often provide lessons useful in the future. Daniel (2003) found that 41% of the participants on a 20-day OB-type expedition described their experience as a reference point with the connotation that the experience served as a landmark in life useful for navigating other life experiences. The lessons learned from experiences people consider as reference points are often recalled and put to use when they encounter new situations. Transfer of learning begins with intention to transfer and is often mediated by influencing factors, methods, and mechanisms. This area of research is still underexplored in the wilderness and adventure program literature (Daniel et al., 2010).

Outward Bound and Youth Development

OB has focused much of its programming efforts over the years toward youth, beginning with Kurt Hahn's early involvement in the Salem and Gordonstoun Schools and other youth-focused educational opportunities (Veevers & Allison, 2011). The maturational declines Hahn noticed in the youth during the 1920s–1940s in Europe are still present in many 21st century youth (e.g., declines in initiative, enterprise, and compassion; Veevers & Allison, 2011). Hahn's educational philosophy and methodologies were aimed at offering young people an environment in which they could more successfully reduce the declines he observed and develop the capacity to contribute more positively to society. These values became the focus in OB courses and were those Hahn hoped to see young people transfer to their home life. More recently, positive youth development has emerged as a framework to describe the characteristics of youth that contribute to positive civic engagement (Lerner, Lerner, & Benson, 2011). These characteristics—competence, confidence, character, connection, and caring (Lerner et al., 2011)—are similar to the desired outcomes in OB programming. OB offers adolescent and adult participants experiences that they perceive as meaningful and which often empower them to engage more fully in the program and, in many cases, transfer this increased engagement to their life at home. The relationship between empowerment and engagement is similar to the developmental assets identified for children (Leffert, Benson, & Roehlkepartain, 1997). In such experiences, students have some control over what to do, when to do it, and for what purpose. Adventure and wilderness programs such as OB often offer increased opportunities for participant autonomy that are pedagogically valuable and necessary in today's culture (Sibthorp et al., 2008).

Student engagement and autonomy in wilderness and adventure programming has been supported in various studies on OB and out-of-class learning (Hattie et al., 1997). Gambone and Arbreton (1997) identified several core program elements that contribute to youth development: a sense of safety, challenging and interesting activities, a sense of belonging, supportive relationships with adults, involvement in decision making, leadership opportunities, and involvement in the community. These elements are also often a focus during OB wilderness programs. In addition, Gambone, Klem, and Connell (2002) and Witt and Caldwell (2005) indicated the dimensions of autonomy (e.g., responsibility, leadership development, self-reliance) are what many young people need to mature in contemporary culture and what many youth indicate they wish they had more opportunities to develop (American Camp Association, 2006). Similarly, Gambone, Yu, Lewis-Charp, Sipe, and Lacoë (2006) concluded that giving youth increased responsibility promotes ownership, leadership opportunities, authentic decision-making opportunities, and a sense of belonging. All OB schools, including the one under study, focus on giving participants this increased responsibility. The degree to which these programs contribute to participants' capacity to take on more responsibility for their actions and the well-being of others and transfer this learning postcourse is an ongoing and critical question. Once again, the pur-

pose of this study was to better understand the lessons that students intended to transfer from an OB wilderness course and what learning they used over 2 years following their experience.

Method

The participants for this study were selected based on criterion sampling (Patton, 2002). The initial sample consisted of participants who completed an open-enrollment youth or adult course during the 2009 summer at the North Carolina Outward Bound School (NCOBS). NCOBS has been operating multiday wilderness programs since 1967 with various age groups, course lengths, and modes of travel and at various program locations. The components of a typical NCOBS course might include backpacking, rock climbing, service project, sea kayaking, whitewater canoeing, solo (personal reflection time often 24–72 hr in length), final expedition (student travel with less instructor involvement), and personal challenge event (final individual challenge such as a run). These components are designed to increase personal and group growth. NCOBS was chosen for this study because of the quality, volume, and variety of wilderness programs offered and the diversity of participants enrolled.

The study was conducted in two phases. Phase 1 of the data collection was a written survey the students completed at the end of their NCOBS course (summer 2009) before returning home. All NCOBS students were encouraged to complete the survey to assist in their reflection and processing of their NCOBS experience, and only students who provided consent ($n = 369$) were included in this study. Phase 2 involved an online survey that was administered 2 years after the course experience (summer 2011). Of the 570 eligible students, 369 consented to participate in the study (end-of-course survey) and 111 consented to participate in a follow-up survey 2 years postcourse, resulting in 30 completed online surveys. See Table 2 for demographics of the study sample.

Table 2
Study Sample Demographics

Characteristic	Sample demographics
Phase 1 Sample	$n = 369$ (65% consent rate)
Gender	60% male, 40% female
Phase 2 Sample	$n = 30$ (33% response rate)
Gender	54% male, 46% female
Age range	
13–15 years	$n = 157$
16–18 years	$n = 193$
19 years and older	$n = 19$
States/countries represented	34 states, 3 countries
Course length	
28 days	$n = 21$
21 days	$n = 158$
14 days	$n = 78$
8 days	$n = 112$

Note. Phase 1 was the paper and pencil survey administered at the conclusion of the wilderness expedition, and Phase 2 was the online survey administered 2 years after the expedition.

We used a multiphase mixed-method design (Creswell, 2014; Creswell & Plano-Clark, 2007) with the qualitative questions as the focus throughout both phases. The primary survey questions in Phase 1 (end-of-course survey) were (a) "What have you learned by participating in an Outward Bound course?" and (b) "When you return home, how do you think you will be affected by your Outward Bound experience?" Frequency analysis was conducted on the demographic data and all qualitative responses were transcribed. Two researchers initially coded the data independently and negotiated the coding until agreement was reached, and a third researcher then coded 20% of the data, resulting in an intercoder reliability rate of 95% for Phase 1 data.

Phase 2 of the data collection was focused on the 111 participants who provided consent to be contacted after the course was completed. Multiple attempts were made to contact these participants in accordance with Internet survey research protocols (Dillman, Smyth, & Christian, 2008). Of these 111 students, 30 (33%) completed a follow-up survey administered online from June–August 2011. In this survey, what lessons students recalled transferring home were identified, allowing us to compare those responses with their responses from the survey administered at the conclusion of the course. The questions asked during Phase 2 of the project included (a) "What, if anything, did you learn by participating in an NCOBS course two summers ago?" and (b) "Did your NCOBS course make a difference in your life in any way? Please explain why you think it did or did not, and provide one specific example of a change that you made as a result of your participation." The participants were not provided with information from their end-of-course survey to reference when completing the follow-up online survey. Three researchers independently coded the follow-up survey responses and negotiated the codes until complete agreement was reached. This triangulation of analysis helped improve the trustworthiness (Lincoln & Guba, 1985) of the findings from this smaller sample.

To analyze data throughout the study, we used the constant comparative method (Glasser & Strauss, 1967) and naturalistic inquiry (Lincoln & Guba, 1985). The process of collecting, coding, and reporting the data allowed us to categorize emergent themes (Strauss & Corbin, 1998). Emerging themes were compared with new data throughout all stages of analysis until theoretical saturation was reached (Strauss & Corbin, 1998). Themes were then refined and representative quotations selected to serve as examples in support of each theme for both sets of data.

Results

Postcourse Learning

Participants were asked what they learned by going on an NCOBS course, and their comments ($n = 369$) at the end of the experience revealed the following themes and subthemes: (a) personal growth (edgework, perspective, people skills), (b) technical skills, and (c) group dynamics (community, group reliance, and teamwork; Figure 1). Each theme is defined and representative quotes are presented following Figure 1.

Personal growth. The theme of personal growth had three subthemes: edgework, perspective, and people skills (see Table 3). The participants described how personal growth had occurred in more specific ways in their lives. The edgework subtheme included comments related to pushing one's own limits, trying new activities, and embracing various challenges. The second subtheme involved shift in perspective. Most often, these shifts were related to how participants viewed themselves or others and were often linked to increased self-confidence. These positive shifts were also related to personal abilities and self-perception. The third subtheme related to the participants describing their ability to develop basic people skills. The skills described usually related to conflict resolution and/or interpersonal communication.

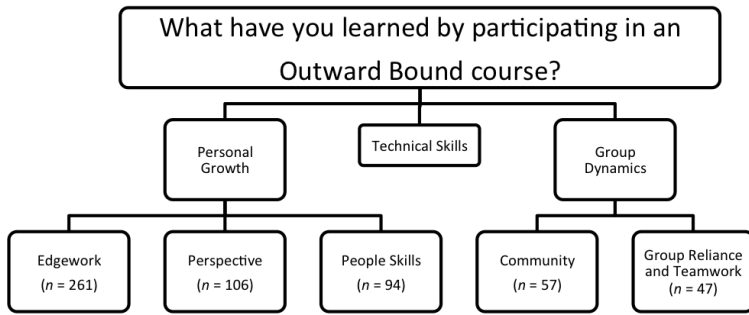


Figure 1. Lessons learned major themes and subthemes.

Table 3

Personal Growth

Subthemes	Representative participant quote
Edgework (n = 261)	“I also learned that my limits are really self-imposed. If I think I can, really, really, really think I can, I will. Anything is possible now. I feel like the little engine that could. [The engine] might not have felt that way at first, but in the end he did. If you don’t climb the mountain, you can’t see the view” (14-year-old female).
Shift in Perspective (n = 106)	“I learned...to enjoy nature as much as art, silence as much as music, and being with friends as much as being alone” (15-year-old male).
People Skills (n = 94)	“I learned how to interact with others better and how to solve arguments in a good way” (15-year-old male).

Many students commented they had learned technical skills on the course such as rock climbing, canoeing, and backpacking. Skill development was also linked in the responses to other outcomes such as self-confidence. The acquisition of technical skills empowered students. One student (22-year-old female) shared,

I came here to learn new skills that would allow me to get more enjoyment out of my outdoor adventures. Navigation and camp living are both skills that I feel adequately qualified to choose my own adventure at this point, which rocks my world! The climbing block empowered me to take one of my biggest passions to an entirely new level, and I savored every lesson from all the climbing instructors.

Group dynamics. The theme of group dynamics (Table 4) had two clear subthemes: (a) community and (b) group reliance and teamwork. In the community subtheme, participants reported learning from group interaction that was nontask related. These interactions included everything from meaningful discussions around the campfire to playing games for fun, but many comments related to the act of getting to know one another on deeper levels through open and honest communication. Another subtheme within group dynamics related to group reliance and teamwork. Unlike the community subtheme, this one involved learning related to working together to achieve a task. Although some participants described specific challenges the group worked to overcome, many described this in more general terms by simply affirming the value

of working together. These participants also spoke of the effect their instructors had on group dynamics.

Table 4
Group Dynamics

Subthemes	Representative participant quote
Community ($n = 57$)	“I learned a sort of empathy for everyone because I realized that we all have the same hopes and dreams just with variations. Everyone loves and wants to be loved. If more people could realize this, then we would all appreciate each other more and peace would be a much more realistic goal” (15-year-old female).
Group Reliance and Teamwork ($n = 47$)	“I learned how important teamwork really is, and how far people will go to assist the crew” (17-year-old male). “One of the major things I learned is how to structurally work as a team. I realized that taking complete control and sitting out are not the best approaches. There’s a sweet medium” (15-year-old, male).

Intent to Transfer Learning Home: Reported at End of Course

In response to the question, “When you return home, how do you think you will be affected by your Outward Bound experience?” some students indicated they thought they would exhibit a dramatic change as a person ($n = 30$) and they described the change broadly. Students used words such as *different*, *stronger*, and *better* to describe the change they detected within themselves. For example, one student (16-year-old female) wrote, “Things are going to be different. Honestly, Outward Bound changed my life.” Another student (16-year-old female) responded, “A new way of thinking and acting will come [home] with me.” Last, a 15-year-old female shared,

Everything will change. I will be a stronger person, a better leader, and a selfless person. I will give more of myself, than getting from others. This course has helped me in the transition from being a teenager to a young adult.

A much larger group described specific ways they had changed. This global theme of new ways of thinking and acting contained four major subthemes (Figure 2). In particular, participants indicated they would be more (a) self-confident, self-reliant, and adventurous (see Table 5); (b) aware and appreciative (see Table 6); (c) socially respectful and responsible; and (d) physically active and mentally stronger.

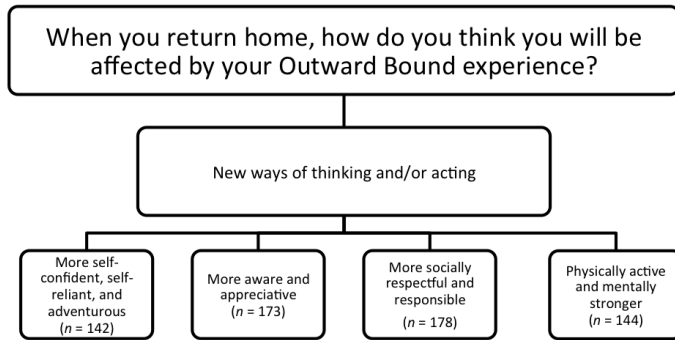


Figure 2. Global theme and major subthemes for intent to transfer lessons home.

Table 5
Self-Confidence, Self-Reliance, and Adventurousness

Subthemes	Representative participant quote
Self-Confidence (n = 104)	“I think I will have this air of confidence, this feeling of knowing that I can handle anything that is thrown my way” (17-year-old male).
Self-Reliance (n = 38)	“It has made me more independent and I know that I will do more things on my own” (15-year-old female).
Adventurousness (n = 33)	“I have drive to turn my life around, try new things, and take responsibility when I go home. I am confident that I can improve my life all together [sic]” (15-year-old male).

Table 6
Aware and Appreciative

Subthemes	Representative participant quote
Appreciation (n = 97)	“I will never take my family or any common household item for granted. I will cook with my mom and be appreciative of what she does for me everyday. I will be more compassionate, and I will open up more and be a healthier person” (16-year-old female).
Self-Reliance (n = 38)	“OB affected me in many ways, but most of all, it gave me a chance to learn about myself and know my flaws and my strengths. I feel that now knowing who I am better and what I am capable of doing, I can go back home and change into a more positive direction” (17-year-old female).
Improved Perspective (n = 29)	“I believe the primary lesson I’ve learned is to slow down and enjoy life. Taking time to get into my head . . . I’ve seen how positive that experience was and I won’t ever settle for less” (21-year-old male).
Environmental Awareness, Appreciation, and Responsibility (n = 15)	“I am going to go home and I am going to care about nature more and learn more about it” (17-year-old male).

Socially respectful and responsible. The third major theme related to participants who said they would be more socially respectful and responsible (see Table 7). Five subthemes emerged: (a) relational improvement, (b) family dynamics, (c) compassion, (d) service to others, and (e) leadership skills. Relational improvement was used to describe participants' attempts to work on specific interpersonal characteristics that affected their relationships with others. The second subtheme dealt with their desire to improve family dynamics. Participants described how they wanted to have a positive effect on family relationships upon returning. The third subtheme related to increased compassion for others that was closely connected to the fourth subtheme in which participants described more specifically a desire to help or serve others. The last subtheme represented leadership skills and the desire to step up to lead others more often.

Table 7
Socially Respectful and Responsible

Subthemes	Representative participant quote
Relational Improvement (<i>n</i> = 86)	"I will be patient with people, not procrastinate, and control my anger" (17-year-old male).
Family Dynamics (<i>n</i> = 35)	"I will have more respect for my mom and do my best to help her out" (16-year-old female).
Compassion (<i>n</i> = 22)	"When I return home I will be a more compassionate person. I will be able to see the good in people more easily and be more capable of understanding where they are coming from" (16-year-old female).
Service to Others (<i>n</i> = 17)	"[I will]...help out in my community more because of this course" (15-year-old male).
Leadership Skills (<i>n</i> = 16)	"I will step up and voice my opinion more often. I will try to lead others in a positive direction" (17-year-old male).

The last major theme was related to participants who said they wanted to be more physically active, demonstrate a stronger work ethic, persevere through difficult circumstances, and remain more motivated (Table 8).

Table 8
Physically Active and Mentally Stronger

Subthemes	Representative participant quote
Physically Active (<i>n</i> = 46)	"Now, I want to spend more time outdoors and be more physically active in general" (17-year-old male).
Work Ethic (<i>n</i> = 43)	"I'm going to be a much stronger and diligent person. I'm going to work harder in everything I do and become more physically active. I'll push myself more because I feel like I not only reached my goals, but I soared past them" (16-year-old female).
Perseverance (<i>n</i> = 32)	"I have gained more determination from my OB experience. I hope to apply that gust and determination to every aspect of my life" (20-year-old female).
Motivation (<i>n</i> = 23)	I now have the drive to succeed at college. I will [physically] work out at last (17-year-old male).

Two Year Follow-Up

Profound life change. When asked 2 years later if their NCOBS experience made a difference in their lives, 87% ($n = 26$) of the students who completed the online survey responded affirmatively. Their responses were often descriptive, providing one or more specific examples of a positive life change since returning home. For example, one student wrote, "In addition to the tangible concepts I learned during Outward Bound, I was able to realize that I have the ability to accomplish seemingly impossible tasks, that limits are only what I make them" (18-year-old female).

Another student (15-year-old male) described in more detail,

This course made a profound difference in my life that others and I noticed right away. The experience enlightened me to the wonder and beauty of nature, my ignorance of how much my parents had done for me, the things in life that are truly important, and the potential and bold heart embedded within me. Upon my return home, I had begun my new life, one in which I commended and recognized the hard work my family has done, given value and dedication to the things in life that matter most, realized the responsibilities I hold, taken on new challenges, torn down the walls of my limits, and reached out to others with a kind, warm, and courageous heart.

The comments indicate that for many of these students their NCOBS course served as a reference point in their lives, causing them to consider what they accomplished 2 years prior on their wilderness course and the memory of that accomplishment as it relates to their current life situations. The themes that emerged were (a) increased self-confidence and self-reliance, (b) interpersonal effectiveness, and (c) mental toughness (see Table 9). The increased self-confidence and self-reliance theme was used to describe responses in which participants clearly indicated they had become more confident or were more able to take on difficult tasks by themselves because of their participation in their NCOBS course. The interpersonal effectiveness theme included responses in which they shared about their ability to communicate more effectively and work with a group of people who were often different than them. Finally, students commented about a mental toughness related to discipline, embracing and dealing with challenges, and growing stronger. Comments that were categorized under mental toughness were always cross-coded as self-confidence, but self-confidence did not always accompany mental toughness.

Table 9

Two Year Follow-Up

Subthemes	Representative participant quote
Increased Self-Confidence and Self-Reliance ($n = 27$)	"...I have the ability to believe in myself and push myself to do things I am uncertain of. I know that I am capable of doing whatever I set my mind to and will most likely achieve if I am determined. Each day, I am thankful for the experiences I had, for they have made me a stronger, well-rounded individual..." (15-year-old female).
Interpersonal Effectiveness ($n = 23$)	"Before Outward Bound I was selfish...I wouldn't let anyone give me their input on how to do something...I had to learn how to work in a group in order to be successful. [Now] I make sure I am working with my group and everyone has a say" (17-year-old male).

Table 9 (cont.)

Subthemes	Representative participant quote
Mental Toughness ($n = 20$)	"I learned that I can overcome any physical challenge, even the ones I thought I would have never overcome, if I put my mind to it. I found my inner strength and have used it to pull me through the obstacles" (16-year-old female).

In addition to the major themes from the 2 year follow-up survey, three minor themes emerged: (a) physically active lifestyle (27%, $n = 8$), (b) environmental awareness and appreciation (23%, $n = 7$), and (c) reference point (20%, $n = 6$). Physically active lifestyle referred to comments in which participants described specific lifestyle changes since their NCOBS course. The environmental awareness and appreciation theme included comments in which participants indicated how they were now more attuned to their natural surroundings. Finally, the reference point theme included a memorable experience that students continue to use as a touchstone to inform future experiences. It may be assumed that many NCOBS students have experiences that serve as reference points in their lives, but these students made specific comments such as the following:

After overcoming so many obstacles during NCOBS, I now am able to face daily obstacles head on without fear or undue hesitation. The "big things" seem a lot smaller in comparison. I've literally hiked over 30 miles in the wilderness while carrying a 60 lb. backpack, and that is something I will never forget. (18-year-old female)

Discussion

The findings of this study are similar to those in other studies in which researchers employed a retrospective approach to investigate what lessons lasted after wilderness program participation (Daniel, 2003; Gass et al., 2003; Gassner et al., 2006; Goldenberg et al., 2005; Sibthorp et al., 2008). There are differences in outcomes across these studies, but program participants predominantly gained a new self-awareness and perspective, increased self-confidence, self-reliance and leadership ability, better communication skills and an improved ability to work with others, and to a lesser degree, a desire for a more physically active lifestyle and appreciation of the outdoors. These previous studies indicate there are identifiable, long-term personal and professional effects for course participants. Even though the NCOBS program had a different focus, the results of this study support findings from a transfer of learning study conducted at the National Outdoor Leadership School (NOLS). In particular, the following lessons learned emerged postcourse in both studies: (a) changes in life perspective, (b) self-confidence, and (c) ability to work as a team member (Sibthorp et al., 2011). The findings of this study also extend previous research (Daniel et al., 2010) in which the relationship between intended and actual transfer of learning within wilderness experience programs was investigated. Finally, these results support what Hattie et al. (1997) stated in their meta-analysis of OB program research: "It seems that adventure programs have a major impact on the lives of participants, and this impact is lasting" (p. 70).

Self-Confidence and Self-Reliance

In the 2011 follow-up survey, NCOBS participants were asked if the course had made a difference in their lives in any way, to explain why it did or did not, and to provide an example of change. The answer to this question became the most concrete indication of what learning transferred home, especially if the participant could provide a clear example of behavioral or cognitive change. The greatest student responses from the open-ended questions were related to the theme of self-confidence and self-reliance (90%) coupled with the theme of mental toughness (67%).

These themes were interconnected in content, yet maintained enough distinctive characteristics to stand alone as themes. Similar to Sibthorp et al.'s (2011) findings, our findings show expressions of self-confidence and self-reliance were often in regard to a greater sense of independence and capability. New ways of thinking were documented in the second theme in expressions of an "inner strength" and a "toughness mentally." These comments obviously came with the perspective of time and after having the opportunity to face new challenges at home over the 2 years since their OB course. Students were aware of a change within their thinking patterns that enabled them to perform with more self-confidence and self-reliance than before their NCOBS experience. These 2 year follow-up themes align with the themes of (a) self-confidence ($n = 104$), (b) self-reliance ($n = 38$), and (c) adventurousness ($n = 33$) that emerged when the students were asked what they intended to transfer home at the end of their course in 2009. This category, self-confidence and self-reliance, showed the highest consistency between themes when comparing postcourse results and those 2 years later.

Interpersonal Effectiveness

Another major theme in the 2 year follow-up results was participants' experiencing more effectiveness in their personal relationships coupled with the theme of believing themselves to be more capable leaders. Once again, these themes corresponded with what the students said they hoped to transfer back home, as reported in the postcourse survey. At the conclusion of their 2009 course, NCOBS participants prioritized (a) relational improvement ($n = 86$), (b) family dynamics ($n = 35$), (c) compassion ($n = 22$), (d) service to others ($n = 17$), and (e) leadership development ($n = 10$).

Two years later, over half of the follow-up respondents (though not specifically asked) believe they have been able to make new friends more easily, communicate respectfully, work more supportively with others, and be a better leader because they completed the OB course. These themes demonstrate a relationship between the intention to transfer and what is transferred home. Students clearly testified to experiencing a greater interpersonal effectiveness over the 2 years postcourse.

These results also seem to confirm what other research has shown regarding the development of interpersonal skills as a result of participation in OB and similar programs. For example, McKenzie (2003) reported, "Working as a group, interacting with other group members, relying on other group members, and taking care of others" (p. 14) were found to influence overall OB course outcomes. Goldenberg et al. (2005) investigated OB learning outcomes from a means-end perspective and discovered that "developing relationships with others and working as a team emerged as one of the most commonly mentioned consequences" (p. 138) of participation in outdoor adventure activities.

Mental Toughness

The 2 year follow-up theme of mental toughness is similar to the theme of mentally stronger highlighted in the 2009 results. It may best be described as a combination of the subthemes that emerged from the data including embracing challenge, work ethic, perseverance, and positive attitude. The mental toughness theme, as expressed by the participants, included qualities similar to grit. Grit is "the tendency to pursue long-term goals with sustained zeal and hard work" (Duckworth, Peterson, Matthews, & Kelly, 2007, p. 1087).

Two years later, some students described having an ability to "overcome everyday challenges," "face fears," "push myself further," "deal with hardships," "face daily obstacles," "cope with uncomfortable situations," "work harder," and be "much more optimistic now." This theme is also similar to Sibthorp et al.'s (2008) finding indicating this "ability to function effectively under difficult circumstances is...one of the more applicable lessons learned and used from participation in a NOLS course" (p. 96). Furthermore, the adventure education literature (Beightol, Jeverson,

Carter, Gray, & Gass, 2012; Neill & Dias, 2001) and American camping literature (Ungar, 2012) seem to support that outdoor programming and wilderness courses provide suitable conditions for increasing the quality that is referred to here as mental toughness in young people. This is reinforced by Hattie et al.'s (1997) conclusion from their meta-analysis of 96 research studies in the field: "The major benefits for adventure programs are reasonably consistent across all six major categories of outcomes. A theme underlying the outcomes with the greatest effects relate to self-control" and "most of these effects are maintained over time" (p. 70). As with Duckworth et al.'s (2007) finding, an expression of "self-control" would seem to be closely connected to mental toughness or grit. Furthermore, this type of learning would seem to be an outcome of effective education. The findings of this study indicate participation in an NCOBS course provides for many young people what Huxley (1896) shared as a critical component of education:

Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not; it is the first lesson that ought to be learned; and however early a man's training begins, it is probably the last lesson that he learns thoroughly. (p. 414)

Outward Bound and Positive Youth Development

These results indicate the features common to an OB experience are critical to developing intrinsic motivation among young people and that this motivation is an important part of positive youth development. Larson and Rusk (2011) summarized the following features as essential to experiences that develop young people's intrinsic motivation: (a) feeling challenged, (b) sense of control, (c) deep attention, and (d) high motivation. The participants in this study shared about how their work ethic, motivation, and sense of responsibility increased because of their participation in the NCOBS program. These NCOBS participants also commented in detail about the relationship between the challenges they have faced and their own growth. Similarly, many participants commented about their new perspective or purpose in life that their experience allowed them the chance to develop. A stronger sense of purpose has been directly linked with overall positive youth development outcomes (Menon Mariano & Going, 2011). Many of the 40 Developmental Assets for Adolescents originally developed by the Search Institute (Leffert et al., 1997) are also being fostered in an OB course for adolescents. Of these 40 assets, the NCOBS participants in this study commented they had experienced growth similar to the following developmental assets: (a) caring, (b) responsibility, (c) planning and decision making, (d) interpersonal competence, (e) cultural competence, (f) peaceful conflict resolution, (g) personal power, (h) self-esteem, (i) sense of purpose, and (j) a positive sense of personal future. These developmental assets capture many of the changes these NCOBS students spoke of in their end-of-course and 2 year follow-up surveys.

Limitations

This study had several limitations. First, the responses received in the 2 year follow-up survey (2011) were dependent on the program participants' memory of their experience in 2009 and the subsequent 2 years. A second limitation was the relatively low response rate for the follow-up study 2 years later. This was still well within the acceptable response rates for follow-up survey research, but this demonstrates the challenge researchers often face when attempting a multiyear follow-up study with adolescent program participants. Finally, similar to any primarily qualitative study, caution should be taken when considering how these findings may apply to similar programs.

Recommendations

Several recommendations emerged from the results of this study. First, wilderness experience programs such as OB, NOLS, and smaller local and regional programs in which similar outcomes are sought should be promoted as contributors to positive youth development. The findings in this study show these programs can foster lasting lessons in areas that youth development professionals are targeting. Second, program managers and instructors should consider the ways in which they help students transfer the meaning of their experience from the backcountry to the front-country. Postcourse communication and reflective tools could be provided to participants and their caregivers to assist in the application of learning. More research is needed for the relationship among intention to transfer, transfer of learning, and the mechanisms or factors that best contribute to that transfer. It seems interpersonal relationships are an influential and consequential factor in the overall quality of the OB experience, but it would be beneficial to gain a better understanding of additional factors including course components, sequencing, environmental conditions, and instructor influence. Finally, it would be helpful to establish a clearer connection between what students intend to transfer home and what they do transfer.

Conclusions

In the end-of-course survey (2009) and the follow-up survey (2011), students were asked to describe what they had learned, if anything, by participating in an NCOBS course. Many of the students, without being prompted, shared similar lessons at the end of their course and 2 years poststudy. Also, 87% ($n = 26$) of the students shared new, previously undocumented learning in the 2 year follow-up survey. For many of these students, the learning process was dynamic with opportunities at home for additional reflection, storytelling, and application over the 2 years. Their comments indicate that learning from these wilderness courses, if limited to end-of-course surveys, is only a partial assessment of the effects at best. Furthermore, when students were originally asked to describe how they would change upon returning home, they were unable to predict fully what new thinking or behaviors would be transferred.

The findings of this study indicate the NCOBS course experience made a positive difference in the lives of many participants at the time of the course and 2 years later. Although the 2 year follow-up survey sample was relatively small compared to the original study group, the results indicate the experience made a positive difference. The participants were able to articulate specific positive life changes because of their experience. These positive life changes are best summarized by (a) increased self-confidence and self-reliance, (b) interpersonal effectiveness, and (c) mental toughness. The lessons learned remained the same in most cases, but new lessons emerged over time. Thus, the 2 years after their experience influenced the meaning they attributed to their learning. The course became both a reference point and a source of new insights. This relatively large qualitative study contributes to the literature in which researchers seek to understand the benefits and outcomes of wilderness experience programs and, more specifically, what outcomes participants intend to transfer and what they do transfer to their everyday lives.

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