

# Abstracts

*from the*  
2010  
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Experiential Education Research



*presented at the*  
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## **Welcome to SEER**

Welcome to the Tenth Annual Symposium on Experiential Education Research (SEER). The purpose of this Symposium is to provide a formal setting for the reporting of research in the fields of Experiential Education. Toward that end, all the research presentations were blind reviewed by a panel of referees. There were 22 submissions for the 12 available presentation slots. Whether accepted or not, the authors who submitted material should be congratulated for their efforts.

Along with the researchers who submitted their work for review, a number of other entities and people deserve a note of thanks for their efforts in making the Symposium a reality. First, the AEE and its various staff members including Evan Narotsky, Anaya Drew, and AEE Chief Executive Officer, Paul Limoges, and the 2010 conference host committee for their support and coordination of SEER. Much appreciation also goes to the scholars who graciously served as reviewers of the submitted abstracts: Kelly Bloom, John Crossley, Karen Horobin, Thomas Jacobson, Cheryl Osborne, David Rolloff, Kathy Scholl, and Allison Stringer. We also wish to thank the members of CORE for their ongoing support.

And finally, a big thanks to the attendees of the Symposium, since it is your keen interest and thoughtful feedback that ultimately drives the research and practice relationship forward. Without you and the various educational endeavors you provide within the broad arena of experiential education, all of our efforts would be for naught.

Thanks to all of you for being a part of SEER.

Jayson Seaman, Co-Chair (2009-2011 term)  
Kath Pinch, Co-Chair (2010-2012 term)

SEER 2010

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<b>Time Fri. 11/5 8:45- 10:15</b>	<b>Session 1 Current research on Outward Bound, Inc.</b>	<b>Time Fri. 11/5 1:30- 3:00</b>	<b>Session 2 In-depth looks at leadership, place, and identity</b>	<b>Time Fri. 11/5 3:15- 4:45</b>	<b>Session 3 Into the black box: Linking process and outcomes in experiential programs</b>	<b>Time Sat. 11/6 8:45- 10:15</b>	<b>Session 4 Program outcomes in varied contexts: New questions, new variables</b>
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20 min	Andrew Bobilya, Ken Kalisch, and Brad Daniel: <i>An Investigation of the Outward Bound Final Expedition</i>	20 min	Franklin Vernon: <i>The Experience of Co-Instructing on Extended Wilderness Courses: A Phenomenological Inquiry</i>	20 min	Jim Sibthorp, Scott Schumann, John Gookin, Karen Paisley, and Kevin Rathunde: <i>Experiential education and lifelong learning: Examining optimal engagement in college students</i>	20 min	Andrew Bailey and Irene Fernando: <i>Decoding the Voluntourism Process: A Case Study of the Pay it Forward Tour</i>
20 min	Marni Goldenberg, Keith Russell, Katherine Soule, Jason Cummings, and Dan Prosolino: <i>Comparing Outward Bound and National Outdoor Leadership School Participant Experiences</i>	20 min	Philip Mullins: <i>Ecologies of Outdoor Skill and Leadership: An Education of Attention.</i>	20 min	Marni Goldenberg, Jason Cummings, Katherine Soule, and Dan Prosolino: <i>How Group Experience Effects Outcomes from NOLS Programs: A Means-End Investigation</i>	20 min	Ackie Cheung: <i>Spiritual Development in Hong Kong Adventure-Based Programs</i>
20 min	Alan Ewert, Jon Fankel, Marieke Van Puymbroek, and Jill Overholt: <i>Adventure Education and the Redeploying Military Veteran: What Do We Know?</i>	20 min	Mat Duerden, Stacy Taniguchi, and Mark Widmer: <i>Contextual Antecedents of Identity Development in an Adventure Recreation Setting: A Qualitative Inquiry</i>	20 min	Keith Russell and Michael Walsh: <i>Wilderness Adventure Programming as an Intervention for Youthful Offenders: Self-Efficacy, Resilience, and Hope for the Future</i>	20 min	Rachel Collins, Jim Sibthorp, Karen Paisley, and John Gookin: <i>Black and White Thinkers and Colorful Problems: Intellectual Differentiation in Experiential Education</i>
20 min	<b>Discussant:</b> Jon Frankel, OB USA	20 min	<b>Discussant</b> Jay Roberts, Earlham College	20 min	<b>Discussant</b> Amy Shellman, SUNY Cortland	20 min	<b>Discussant</b> Garrett Hutson, Brock University

## **SEER 2010 ABSTRACT**

### **An Investigation of the Outward Bound Final Expedition**

*Andrew J. Bobilya, Ken Kalisch & Brad Daniel*

#### **Introduction & Literature Review**

Research investigating wilderness programs indicates a clear need for additional investigation of specific program components and their influence on participant outcomes (Ewert & McAvoy, 2000; McKenzie, 2000; Schuman, Paisley, Sibthorp, & Gookin, 2009). This study examines one component of the Outward Bound wilderness program – the Final Expedition. The Final Expedition is a student-led wilderness expedition and is also referred to as an autonomous student expedition or independent group travel (Sibthorp, Paisley, Gookin, & Furman, 2008). Recent research has shown the Final Expedition to be one of the most memorable and significant course components from post-course surveys at Outward Bound Singapore (Gassner, Kahlid, & Russell, 2006), the National Outdoor Leadership School (Sibthorp et al., 2008) and retrospectively over the participant's lifetime (Daniel, 2003). Gassner et al. (2006) found that the Final Expedition ranked highest on significance for both personal and professional life among participants on a 21-day Outward Bound Singapore wilderness course. However, little research has exclusively explored the Final Expedition to understand participants' perceptions of this often-significant course component.

The Outward Bound Final Expedition allows the student team to take over the leadership of the expedition while instructors maintain safe oversight (Outward Bound, 2010). Despite research documenting the benefits of student autonomy in outdoor programming (American Camp Association, 2006; Ramsing & Sibthorp, 2008), the format of the Final Expedition has changed due to increasing concerns regarding liability and risks. Today these student-led expeditions vary in format from the traditional practice of truly independent group travel. The researchers in this study identified four ways in which the Final Expedition was facilitated, a) unaccompanied by instructors, b) instructors traveled within sight or sound of the group, c) instructors traveled within sight and sound of the group and d) instructors traveled with the group.

This paper presents findings from a study conducted in 2008-09 involving participants at the North Carolina Outward Bound School (NCOBS). The purpose of the study was to understand participants' perceptions of their Final Expedition experience. NCOBS annually operates courses with various age groups, course lengths, modes of travel, and program locations. Because of the Final Expedition's standard use and its significant contribution to student learning and growth (Daniel, 2003; Gassner et al., 2006; Sibthorp et al., 2008) there is a need to better understand the meaning that participants attribute to the Final Expedition. Most related research to date has yet to explore this component of the Outward Bound wilderness student experience.

#### **Methods**

This study utilized a mixed-method survey design (Creswell & Plano Clark, 2007) with the qualitative questions comprising the dominant data collection method. This study design followed a modified grounded-theory approach (Glasser & Strauss, 1967). The process of collecting, coding, and reporting the data allowed for emergent themes to be categorized (Strauss

& Corbin, 1998). The survey was designed based on the guidelines for survey research outlined by Patten (2001). The open-ended survey questions included, “What did you enjoy the most about your Final Expedition experience?” “What was the most difficult part of your Final Expedition experience?” and “How did the freedom from instructors on your Final Expedition most contribute to your personal growth and/or group development?” The participants were selected based on simple criterion sampling (Patton, 2002). The sample included NCOBS students who participated in an open-enrollment course that lasted seven days or longer with a Final Expedition during the 2008 summer. Adult courses during August to May, 2009 were also included. The sample was self-selected. Of the 550 students, 331 consented to participate in the study and provided survey responses. The sample included mostly youth courses (n=33) and a few adult courses (n=7). The researchers chose to include the adult responses for their value in comparing the instructor positioning (eg: unaccompanied vs. sight and sound).

The survey responses were typed, coded, and categorized using a combination of open and axial coding processes (Strauss & Corbin, 1998). Emergent themes were constructed and refined using the constant comparative method (Glasser & Strauss, 1967). This process continued until no new categories or concepts emerged. Two researchers initially coded the data and one additional researcher coded 20-25% of the surveys to establish inter-coder reliability. The themes were then refined until consensus was reached. Finally, representative quotations from participants were selected to illustrate each theme.

## **Results and Discussion**

Analysis of the data from all 331 participants revealed multiple themes represented below in descending order by frequency of response. The *most enjoyable* characteristics of the Final Expedition were: a) feeling of accomplishment, b) having autonomy, c) experiencing community, d) experiencing teamwork, e) “finishing it”. The *most difficult* characteristics of the Final Expedition were: a) group dynamics, b) physical challenge, c) navigation and d) autonomy. Finally, when asked how the freedom from instructors most contributed to their personal growth and group development the following themes emerged (presented according to group or individual): a) group reliance and responsibility, b) group cohesion, c) self-awareness, d) self-reliance and e) leadership development. While the third research question is limited in its positive orientation, students were also free to indicate “no growth” as a response and a small number (n=17) did so.

The findings of this relatively large mixed-method study add to the growing body of research investigating the characteristics and outcomes of the Outward Bound-type wilderness experience and in particular, the Final Expedition. They also support the youth development literature (American Camp Association, 2006), which indicates that these types of outcomes are what young people need in contemporary culture (e.g. responsibility, leadership development, self-reliance, etc.). These results are helpful for field instructors and program managers as they consider the intentional use of autonomous student expeditions – particularly in a culture where student autonomy is being reduced to safeguard program liability.

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## SEER ABSTRACT 2010

# Comparing Outward Bound and National Outdoor Leadership School Participant Experiences

*Marni Goldenberg, Keith C Russell, Katherine Soule, Jason Cummings, and Dan Pronsolino*

### Introduction

This study will explore the differences between Outward Bound (OB) and National Outdoor Leadership School (NOLS) participant perspectives on programmatic factors and their relation to outcomes. OB and NOLS are two of the largest and most respected outdoor adventure education program providers in the world (Bachert, 1999). Though assumed to be similar in many ways, in that each program offers wilderness expeditions for students in backcountry environments, the mission and values of each organization are actually quite different. The mission statement of OB reads: “To inspire character development and self-discovery in people of all ages and walks of life through challenge and adventure, and to impel them to achieve more than they ever thought possible, to show compassion for others and to actively engage in creating a better world” (OB, 2010). NOLS’ mission on the other hand is to “be the leading source and teacher of wilderness skills and leadership that serve people and the environment” (NOLS, 2010). Because of these different missions, it is logical to assume that participant outcomes would also be different. But are they? Are there factors inherent in wilderness expedition courses that transcend programmatic differences? If so, what do these factors look like and how do they relate to participant outcomes? By exploring these questions, a deeper understanding of the factors that make wilderness expedition courses like OB and NOLS effective in developing student potential can be realized.

This study seeks to address these questions by examining participant outcomes from a sample of students who participated in NOLS and OB programs in 2006. Means-end theory was used to analyze the differences in outcomes from interviews. Originally used to understand consumer decision-making, Gutman’s (1982) means-end theory has been used in outdoor adventure contexts (Goldenberg, McAvoy, & Klenosky, 2005; McAvoy, Holman, Goldenberg, & Klenosky, 2006) and ropes course setting (Goldenberg, Klenosky, O’Leary, & Templin 2000; Haras, Bunting, & Witt, 2006) to examine outcomes. Group has been a common attribute that has emerged from the outdoor adventure context. Group includes working with others, teamwork, and meeting people/friends. Outward Bound participants were found to recall that group interactions from their course connected this attribute to develop relationships with others and teamwork (Goldenberg et al, 2005).

### Methodology

Means-end theory asks study participants to examine how their experiences in an OB or NOLS course (attributes), directly relate to a variety of states or feelings while enmeshed in that experience. An example would be that a participant would describe a “Solo” experience in an OB course (attribute), and how it facilitated a sense of “Independence” (consequence). The

element of the inquiry is to have participants then describe their desired “end-state” that result from the experience and consequence (the ends). Using the same example as above, a participant may describe the Solo, facilitating a sense of independence (consequence) for them that eventually led to a sense of accomplishment (value).

Means-end data was collected using a qualitative research technique known as laddering, which involved the researcher asking a series of open-ended questions to respondents that asked them to explore the attributes that were important to them during their OB or NOLS program. The respondent was then asked to explain why the particular attribute was important, which led to further questioning as to why that was important. This laddering approach continued until the respondent could no longer provide a meaningful answer, and/or simply ended with the statement “I don’t know,” or “It just is.” This laddering process was repeated for each attribute that was described by the respondent.

This data was then entered into SPSS and organized by: 1) attributes, 2) consequences, and 3) values. The respondents were categorized as to whether they participated in a NOLS or OB course. Non parametric statistics was and will be used to analyze relationships between attribute, consequence, and values for the OB and NOLS participants to determine the strength of the relationships between these ranked Attributes, Values and Consequences for each program. Relationships were analyzed using Spearman R non-parametric tests of significance.

## Results

Descriptive analysis reveals more similarities than differences between perceived attributes, consequences, and values from OB and NOLS participants. The following five attributes of the OB course were mentioned most frequently by OB participants: 1) Expedition (69.7%), 2) Group (58.6%), 3) Solo (27.8%), Climbing (23.8%), and Wilderness (17.3%). For NOLS participants, the results were very similar: 1) Expedition (39.7%), 2) Group (39.1%), 3) Climbing (32.5%), 4) Wilderness (23.0%), and 5) Overall Course (16.4%). When examining the consequences and values that were linked from these attributes, the following four consequences were noted most frequently by OB participants: 1) Interactions (64.2%), 2) Challenge (57.4%), 3) New Experience (49.4%), and 4) Personal Growth (38.2%). The following four outcomes were mentioned by NOLS participants: 1) Interactions (55.4%), 2) Hard Skills (38.6%), 3) New Experience (36.5%), and 4) Challenge (33.9%). Again, there are more similarities than differences noted in these consequences, with the exception of Hard Skills, which are a central focus of NOLS courses and is consistent with their mission. The most frequently mentioned values for OB participants included: 1) Transference (58.0%), 2) Sense of Accomplishment (51.9%), and 3) Self Respect/Esteem (40.7%). For NOLS participants, the top values were: 1) Transference (54.6%), Self Respect/Esteem (37.5%), and Sense of Accomplishment (35.9%).

The top two attributes (Group and Expeditioning), three consequences (Interactions, Being Challenged, and New Experience), and three values (Transference, Sense of Accomplishment, Self Respect/Esteem) for the complete dataset regardless of program were used to explore relationships between two sets of variables: 1) attributes and consequences, and 2) consequences and values. The results showed that Expeditioning was positively correlated with Being Challenged ( $\rho=.379$ ,  $p<.001$ ) and New Experience ( $\rho=.228$ ,  $p=.003$ ) for OB participants and NOLS participants (Being Challenged,  $\rho=.321$ ,  $p<.001$ ; New Experience,  $\rho=.321$ ,  $p<.001$ ), and Interactions was not significantly related. For the Group attribute, positive correlations were

found with Interactions for OB ( $\rho=.383, p<.001$ ) and NOLS ( $\rho=.453, p<.001$ ) participants. The Group attribute was not correlated strongly with other consequences. When examining the relationships between consequences and values, the two relationships that were significant for OB participants were Being Challenged ( $\rho=.320, p<.001$ ) and New Experience ( $\rho=.208, p=.008$ ) were positively correlated with the Sense of Accomplishment value. For NOLS participants, the same result was found, with Being Challenged ( $\rho=.227, p<.001$ ) and New Experience ( $\rho=.138, p=.010$ ) were also positively correlated with the Sense of Accomplishment value. See Table 1 for summary of results.

Table 1. Summary of attributes, consequences and values significant relationships\* common and unique to each program.

Program	Attribute	Consequence	Consequence	Value
OB and NOLS	Expeditions →	Being Challenged New Experience	Being Challenged → New Experience	Sense of Accomplishment
	Group →	Interactions		

\*Relationships were significant a  $p < .01$

## Discussion

This exploratory study began with a question asked at a conference: What if you compared OB and NOLS participant’s attributes, consequences and values? The ensuing discussion was summarized in the statement “Why would you want to do that? They are completely different programs; it would be like comparing apples and oranges.” The result of this inquiry, though exploratory in nature, is that common factors that result in strong values for participants emerged from the data regardless of the organization’s mission, programming characteristics, or focus of the course. Though sometimes assumed by practitioners and researchers, and posited in the literature as key course characteristics, these attributes, consequences, and values may be “meta-factors” that could be more fully developed using more rigorous quantitative methods to build models which could be used to test more robust theory. The findings on challenge and new experiences and their relationship with sense of accomplishment have been thoroughly discussed in the outdoor education literature (see Hattie, Marsh, Neill & Richards, 1997; Hans, 2000), but are done so with the caveat that caution should be taken because no two programs are alike, and it is difficult to draw conclusions as to consistent outcomes. This study shows that though programs are indeed unique, and may be different in the way in which they are delivered and led, the characteristics of expedition and group work are related to challenge and the feeling of having a new experience, which in turn leads to a feeling of accomplishment despite obvious programmatic differences. The fact that Interactions was a consequence mentioned most frequently by participants as an outcome from the program reinforces the well-established notion that the group is a powerful factor in outdoor adventure programming regardless of the focus of the course. This research also adds to the body of literature on means-end by using non-parametric statistics to analyze the attributes, consequences, and values associated with participation in an outdoor education course.

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## SEER 2010 ABSTRACT

# Adventure Education and the Returning Military Veteran: What Do We Know?

*Alan Ewert, Marieke Van Puymbroeck, Jon Frankel, and Jillisa Overholt*

### Introduction

This presentation describes two studies examining the effects of an experiential and adventure-based program (Outward Bound) on returning military veterans. The assumption underlying these studies is the belief that adventure-based programs can serve as a beneficial mediator in the reintegration of returning military veterans into society. Since 2001, more than 3.2 million US soldiers, sailors, marines, and airmen have been deployed in Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF) (Contingency Tracking System, 2009). Batten and Pollack (2008) reported that while over 29,000 of these military personnel have been physically wounded, many more return with psychological issues. In addition, the extent of these psychological issues is often underreported because (a) these injuries are not easily observed and often not reported until several months after returning from deployment, and (b) the military climate can stigmatize the admission of psychological health-related problems often present among returning veterans (Seal, et al., 2008).

### Methods

The Outward Bound Veteran Program (OBVP) is specifically designed for military veteran populations, and is an example of a type of intervention utilizing components of experiential-based activities in remote outdoor settings, conducted within small group cohorts. The logic underlying this type of intervention is that by successfully completing the OBVP, veterans will enhance their perceptions of their personal abilities regarding variables such as leadership, teamwork skills, effective communication, resilience, self-efficacy, and social and environmental responsibility (see Figure 1). In addition, the small group context provided by the intervention promotes a level of social support that facilitates the veteran in making positive attitudinal and behavioral changes.

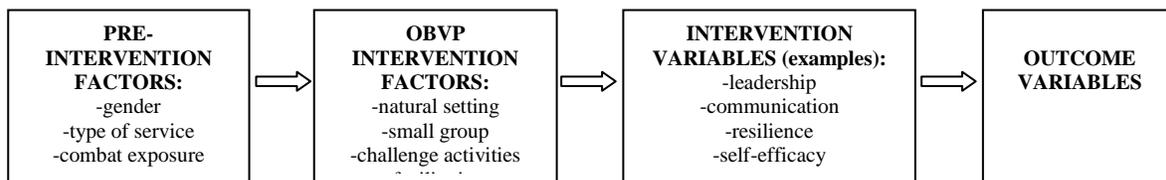


Figure 1. OBVP intervention and outcome variables.

### Results

*Study 1.* The purpose of this study was to provide a preliminary comparison between veterans and adult non-veteran participants of Outward Bound. The data were collected throughout 2008-2009 and consisted of 142 veterans who responded to nine course evaluation questions immediately following their participation in an OBVP course. These questions focused on

confidence, physical and emotional safety, feelings of success, leadership and teamwork skills, compassion and respect for others, and acceptance of responsibility. Each question was constructed using a Likert scale anchored by 1 = *Strongly Disagree* and 7 = *Strongly Agree*. These scores were compared to those generated by other adult non-veteran students who participated in an Outward Bound course during the same time period (N=175). Veterans reported higher levels of agreement than non-veteran adult students on five of the nine items: confidence; feeling physically safe; feeling emotionally safe; feelings of success; and gained knowledge. Conversely, veterans reported lower levels of agreement on four of the nine course items: leadership skills; compassion and respect for others; teamwork; and acceptance of responsibility. This data collection was repeated in 2009 with similar results. These preliminary data did not ascertain if the actual course was responsible for these changes. What was determined from these data was the belief that Outward Bound, and adventure education in general, is more effective at facilitating change on some variables but less so for others. That is, veterans already bring into the course a great deal of experience with issues such as leadership, teamwork, and acceptance of responsibility. Thus, the Outward Bound experience may be less powerful for veterans than for non-veteran adults for these specific variables. On the other hand, these preliminary data did suggest that the OBVP experience was linked to variables such as confidence, feeling safe, success, and gaining knowledge.

*Study 2.* In Study 2, three major variables were examined: Personal Constructs, Sense of Coherence, and Personal Health. The eleven personal constructs included self-confidence, self-actualization, compassion, healthy and balanced lifestyle, goal setting, group collaboration, effective communication, conflict resolution, problem-solving, social responsibility and environmental responsibility. These eleven items are part of the Outward Bound Outcomes Instrument (OBOI) (Frankel & Ewert, 2009), and were measured throughout the summer season of 2009, using a pre-post test format. Additional independent variables included gender, age, combat status, and ethnicity. Data were collected from 267 veterans who recently returned from OEF or OIF theaters, and attended one of 32 different OBVP courses. Course length was typically five days and involved a group size of 6-10 veterans with two course instructors. After screening for missing data (missing either pre-test or post-test) and univariate outliers, the remaining sample size was 246 veterans with 75.5% male, 85% white and 59% in non-combat status. The mean age was 35.8 years ( $SD = 8.9$ ) with a range of 22-62 years. When compared across time (pre/post), all 11 personal constructs statistically improved with effect sizes ranging from .40-.95. No significant differences or interaction effects on gender, age group, combat status, or ethnicity as independent variables were detected. The Cronbach's alpha values for the 11 personal constructs ranged from .69- .87 for the pretest scores and .80- .90 for the posttest scores.

Sense of Coherence was measured using Antonovsky's (1987) 13-item Sense of Coherence scale. Sense of Coherence (SOC) is the ability to deal with stress through meaning, comprehension and effective management. Comparing pre/post scores on all 13 indicated items generated significant differences with an effect size of .51. In this study, the Cronbach alpha was .86.

Data on participants' fitness level were collected by asking a series of questions related to their health. The results indicated that about 30-40% of the participants felt worn out or tired more often than some of the time, 10-20% of them felt depressed or nervous, 7-10% of them had problems with work or regular activities as a result of emotional problems, and 8-10% reported that their physical and emotional health was somewhat worse than pre-deployment.

Overall, the data from Phase II point to a positive impact on veterans returning from the Afghan or Iraqi theaters of operations, with some of the effect sizes suggesting that this effect can be quite pronounced. In essence, the ambiance surrounding an Outward Bound course (that is, small group atmosphere, natural/outdoor setting, involved and caring staff, and clearly identifiable set of challenges) may serve to “scaffold” many of the occurrences experienced by the returning veteran. Data from the participants’ fitness level was more difficult to interpret. It may be true, however, that the level of overall physical and emotional health was negatively impacted by their deployment.

### **Discussion and Future Directions**

The data from this study suggest that deployment to OEF and OIF theaters can have some potential negative health ramifications to the military veteran, such as decreased levels of energy, and emotional issues. The two studies reported here provide support for the efficacy of OBVP in terms of specific variables associated with personal development, sense of coherence, and overall well-being. In addition, the Department of Defense (DoD) has identified substance use and abuse among military personnel as a significant problem impacting force readiness and has placed an increased emphasis on health promotion and physical readiness (Wheeler, D. P., & Bragin, 2007). Predictor variables associated with substance use and abuse include resilience, self-efficacy, sense of coherence, social support, and self-regulation. Accordingly, future studies should incorporate these and related variables to determine the impact of participation in programs such as the OBVP upon specific issues such as substance abuse and integration back into society.

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## SEER 2010 ABSTRACT

# The Experience of Co-instructing on Extended Wilderness Trips

*Franklin Vernon*

### Introduction

Adventure education organizations use co-instruction as the dominant mode of staffing programs, largely for issues related to risk mitigation (Wagstaff, 1997). While the American adventure education field has paired co-instructors to run multi-day wilderness courses as the default arrangement almost since its inception, theory, research, and subsequent training have focused predominantly on individual-leader paradigms (Priest, 1987). Research into the phenomenon of co-instruction, and the voices of co-instructors themselves, has been largely absent in the adventure education literature (Rilling & Jordan, 2007). Moreover, a review of relevant literature on co-leadership from the human services and traditional education fields reveals little clear consensus regarding the nature of the co-leadership experience. Preference has been given, therefore, to the institutional perspective on co-leadership, and little research is available that privileges the co-leader's perspective. It was my aim in this study to privilege the voice of co-instructors themselves in order to enlarge the field's understanding of this common work arrangement.

This phenomenological study investigated the experience of co-instructors through in-depth qualitative interviews (Seidman, 2006), which were transcribed and inductively analyzed for emergent themes. Co-instructing, at its essence, emerged as a negotiated relationship between co-instructors that shaped their professional, social, and personal success while in the field. In this study, I elaborate the central themes of the *negotiated relationship* and discuss the meaning of co-instruction in peoples' lives.

### Literature Review

Co-leadership has been defined in the human service field as "two professionals who jointly share the responsibility for establishing, administering, and facilitating the group activities" (Starak, 1980, p. 146). This definition mirrors the explicit and tacit expectations of co-instruction in adventure education (Wagstaff, 1997). Despite these relatively concise definitions, both human service and educational fields have found discrepancies in how the definition is carried into practice (Austin, 2001; Kolodny, 1980; Walther-Thomas, 1997). Indeed, both fields have noted felt disconnects between the administrative perspectives and co-leaders' experiences. For example, in a mixed-methods study of co-teachers' experiences, Austin states that although educators responded that they "valued shared classroom management and instructional duties, they did not in practice share these responsibilities" (p. 249). Austin's research suggests that work arrangements, which presumably look straightforward from an administrative point of view -such as pairing a special education teacher with a subject area teacher to further the organizational aim of inclusivity- may mask differences in how the arrangement is actually experienced by the professionals who enact it.

When tackling the rather nebulous concept of co-instruction, research in adventure education has largely looked to the human service and education fields for theories and models (Millette & Porter, 1992; Rilling & Jordan, 2007) despite the tensions that arise from a review of that literature. Moreover, one notices a conspicuous deficit in the voices of those who practice co-leadership as part of their routine work environment within the academic treatment; in other words, by default, and absent other alternatives (or even careful attention to the topic), the perspective that has been privileged in the co-leadership literature is that of program administrators and textbook writers. This may hide the unique dynamics of the co-instruction relationship and make co-instruction (or instruction itself, at least when two people try to do it together) seem more straightforward than it is.

## Methods

Five wilderness instructors with a minimum of 8 ten+ day wilderness courses took part in in-depth qualitative interviews aligned with phenomenology (Seidman, 2006). Each interviewee took part in three separate 90-minute interviews: a *life history*, a *detail of experience*, and a *meaning reflection* interview, all focusing on a specific wilderness course that they had co-instructed. The interviews were transcribed and analyzed using wholistic, sententious, and line-by-line approaches (van Manen, 1997). The analyzed data was then re-constructed into reflected narratives (van Manen) and analyzed for the shared phenomenological essence of co-instruction and its themes and aspects.

## Results

Participants experienced co-instructing as a negotiated relationship between themselves and their co-instructors. Four themes emerged from the narratives that came to define *negotiated relationship*. These four themes were *living work*, *the dilemma of the super-instructor*, *sizing up*, and *relational resolutions*. I also identified several aspects within each theme. The manner in which the themes were encountered and attended to catalyzed different resolutions for my participants' relational dilemmas on course. The major themes and a list of their aspects are outlined in Table 1, along with a notation showing who addressed them in their narrative.

Table 1: Shared Themes by Participant

<b>Theme</b>	<b>Jeremy</b>	<b>Bethany</b>	<b>Peter</b>	<b>Jennifer</b>	<b>Erin</b>
<b>Negotiated Relationship</b>	X	X	X	X	X
<b>Living Work</b>	X	X	X	X	X
Home		X	X	X	X
Inescapable Partner	X	X	X	X	X
Intense Form of "Real Life"		X	X	X	
Support Giver	X	X	X	X	X
<b>Dilemma of the Super-Instructor</b>	X	X	X	X	X
Pride and Insecurity	X	X	X	X	X
Negotiating Power	X	X	X	X	X
Self-in-Team	X	X	X	X	X

<b>Sizing up</b>	X	X	X	X	X
Organizational Power	X	X	X	X	X
Emergent Power	X	X		X	X
Evaluation	X	X	X	X	X
Communication	X	X	X	X	X
Prioritizing Goals	X	X	X	X	X
Trust	X	X	X	X	X
<b>Relational Resolutions</b>	X	X	X	X	X
Fulfilling		X	X		X
Lackluster	X				
Isolating				X	

### Discussion

For professionals on extended wilderness courses there exists an imperative to synergize work and home life, as the separation that is commonly found elsewhere in human service settings, or perhaps in work more broadly (Mitchell, 1983), does not exist. As such, the co-instructing experience is a unique relationship with a duality of roles, those of maintaining both personal and professional identity and relational requirements simultaneously; and each demand attention. Indeed, the relational resolution, which appears to resolve on a spectrum that includes *fulfilling* and *isolating* near its poles, constituted the interviewees' interpretations of the quality of their overall experience when on a wilderness course.

For the participants in my study, co-instructing provided opportunities within their course-life experience to find the richest potential for professional, social, and personal fulfillment and/or isolation. This investigation of co-instruction from a phenomenological perspective provided insight into the experience that is otherwise difficult to perceive from within the administrative perspective that comprises much of the academic and training literature in adventure education. The meaning that emerged from this study did appear to indicate that the co-instructor's perspective might be suppressed by the administrative definition, which seems to have shaped the explicit and implicit understanding of 'co-instruction' to date. The experience of co-instruction, therefore, is not simply an arrangement between two equal professionals, but also an arrangement between two individuals engaged in an intense, shared life experience. Therefore, I submit the following conceptualization of co-instruction: Co-instruction on wilderness expeditions involves the pairing of two individuals to share in the negotiation of professional obligation, social roles, and personal requirements through the relationship they create, potentiating a sustainable and fulfilling experience for both students and staff.

The primary significance of this study is a more nuanced understanding of the co-instructing experience as it is known by those who practice it. Furthermore, it implicates a need for more open discussion, development of trainings, and future research on co-instruction from within the adventure education field while attending to both administrative and co-instructor perspectives. Perhaps most importantly; however, the ability to effectively conceal and shelter students from the impacts of their co-instructors' relational negotiations would appear strenuous and potentially impossible, given that my data points out both personal and professional implications stemming

from the co-instructors' *negotiated relationship*. There is therefore a need to study the manner in which co-instructor dynamics shape student experience.

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## SEER 2010 ABSTRACT

### **Ecologies of Outdoor Skill: An Education of Attention**

*Philip M. Mullins*

#### **Introduction**

Participant performances of outdoor skills and leadership are interpreted for environmental learning using Ingold's (2000) notion of an *education of attention*: the fine-tuning of their perception. The actual tasks and activities of adventure travel have until recently gone largely unquestioned; but the relationship between skills and environmental learning is now hotly debated (Thomas, 2005). Many authors propose "de-skilling" outdoor education on the grounds that technical skills divert participants' focus from nature (Haluza-Delay, 1999; Payne, 2002; Lugg, 2004; Wattachow, 2007). This piece, on the other hand, adds to research suggesting climbers and paddlers cultivate embodied knowledge and senses of belonging through sensual interactions with environments (Lewis, 2000; McCarthy, 2002; Mullins, 2009). Increased social and environmental impacts coupled with calls for sustainability demand adventure industries grasp the functioning and limits of their activities vis a vis social and ecological communities. For participants of this study, canoe tripping involved the acquisition, expression, and sharing of environmental knowledge specific to the activity-environment combination. Though further research is needed, the findings also suggest that outdoor leadership required participants to expand their environmental perception. That practical outdoor skills and leadership involve acquiring environmental knowledge may be implicitly understood by practitioners, but opportunities remain to more fully integrate this perspective into theoretical and pedagogical approaches. Implications for place-based education and sustainability will be discussed.

#### **Theoretical Perspective**

Based on Gibson (1979), Ingold (2000) described human perception as a function of a holistic and environmentally situated sensory system. Ingold described *skills* not as applied techniques of the body, but as carefully cultivated embodied capacities for awareness and intentioned response. The skilled participant, he posited, engages in an embodied dialogue with elements of his or her surroundings. While developing their physical abilities, novice participants require what Gibson and Ingold have called an *education of attention* to salient features, constituents, processes, and events in their surroundings. Ingold argued that participants become intuitively familiar with an environment through ongoing enskilment and practice, and through which their bodies adapt to and shape their surroundings.

#### **Methods**

This project involved six members of an extended 100-day canoe expedition. Three research participants were female and three male, they ranged in age between 19 and 35 years. All participants had post-secondary education related to physical education, recreation, and leisure studies. Three participants were skilled canoe guides and educators, one was an experienced outdoor educator with intermediate skill in canoeing, and the two remaining were new to canoe tripping. The entire trip covered more than 2500 kilometres on rivers and lakes in northern

Canada. The sample of convenience was pragmatic and consistent with action-oriented interpretive research seeking to gain in-depth understandings, preserve the richness of lived experiences, and raise new theoretical possibilities while situated within the realities of actual practice.

The research was designed as a commonplace journey, inspired by Sumara (2001), during which participants travelled together with the researcher and engaged in cycles of practice, reflection and discussion. The journey was undertaken with the intent of critically interpreting dominant practices and exploring Ingold's (2000) dwelling perspective as an alternative approach to understanding and practicing adventure travel by canoe.

Data collection involved participant journaling, semi-structured group discussions, and participant observation *in situ*. Journal entries responded to prompts regarding concepts and trip happenings, or freely recorded participant interests and observations. Observations and reflections were discussed during nine semi-structured group meetings that lasted between one and three hours and covered the duration of the trip. These meetings were tape recorded and later transcribed. The methods allowed data to represent participants' concerns and experiences as they unfolded within the changing social and physical contexts of the trip. Tapes of discussions were transcribed and checked for accuracy.

Analysis of participant narratives from the transcriptions and journals was guided by van Manen's (2003) *Researching Lived Experience*. Transcripts were read, re-read, and coded for emerging understandings of shared and discordant experiences of spatially, corporeally, temporally, and relationally as they were lived through canoe tripping. Narratives relating to each emergent understanding were compiled and re-read to refine the author's interpretation. Understood as structures of participant experiences, these understandings allowed the researcher to seek connections and insights regarding the applicability of the dwelling perspective, which continue to emerge through writing (van Manen, 2003).

## Results

On the trip, participants' education of attention was both self-directed and facilitated by other experienced participants and inhabitants. Moreover, it was shaped by traditions (e.g. staying out of towns), equipment (e.g. satellite phones), and practices (e.g. "mapped out" itineraries). Three understandings about an education of attention emerged from participant narratives. First, participants learnt about their environment indirectly by *attending to self and others* while working with group members to harmonize canoe skills and camping tasks, such as paddling in tandem and gathering drinking water, respectively. They also learned by engaging local inhabitants and other canoe groups in conversation. Participants learnt about their environment in a direct way by *attending and responding to surroundings* while fine-tuning their skills in reading and navigating river features, as well as interpreting and responding to weather conditions that permeated their travel and daily life. Participants reported feeling "in place" when paddling well together and in accordance with conditions. Finally, *leadership roles required expanded repertoires and deeper perception* of surroundings. Education of attention came to the fore as participants learned to lead, which required expanding and honing multiple interpersonal and technical skills. While leading, participants confronted and accepted responsibility for elements of uncertainty. That is, their leadership actions had real consequences which encouraged more-focused attention to multiple moments in time.

## Discussion

Learning to lead involved the environment not simply as a context for travel or group development, but as a multiplicity of active objects of learning. Through an education of attention shaped by styles and traditions in practice, environmental awareness may be fundamental to learning and performing outdoor adventure skills. Through this process participants fostered an intuitive and familiar sense of place and proper functioning as part of an active environment. This study presents a novel conception of human-environment relations lived through outdoor activities that can inform sense of place research and teaching of sustainability. Research to strengthen and build on findings is suggested. Careful approaches to technical skill development over the long-term may allow participants to engage in relationships with various landscapes and environments that contribute to senses of self and belonging, which are essential to sustainability.

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## SEER 2010 Abstract

# Contextual Antecedents of Identity Development in an Adventure Recreation Setting: A Qualitative Inquiry

*Mat D. Duerden, Stacy Taniguchi, and Mark Widmer*

### Introduction

Identity research has historically focused primarily on the developmental outcomes resulting from identity varying degrees of identity formation. Less is known about the interpersonal and contextual elements that facilitate this process. Therefore the purpose of this study was to qualitatively investigate a structured recreation context that had been quantitatively shown to promote adolescent identity development (Duerden, Widmer, Taniguchi, & McCoy, 2009). The goal was to identify what this particular context afforded individuals that potentially contributed to observable identity development gains.

### Methods

Participants completed a two-week adventure program located in Idaho's Salmon-Challis National Forest. Youth participants were assigned to teams of four youth, for a total of six teams per session, each under the supervision of one male and one female staff member. The program consisted of three different activity rotations: (a) backpacking, (b) white water rafting, and (c) exploration (e.g., mountain biking, team building activities, and environmental education). Participants included 22 males and 23 females, ages 11-15 ( $M = 13.2$ ,  $SD = .89$ ), from three western states. Eighty-four percent were Caucasian, 13% were Hispanic, and the remaining 2% represented other ethnicities. Females and males attended separate sessions of the program.

Participants took part in focus-group discussions after completing each rotation. Dyadic interviews were conducted with approximately 80% of the youth from each session. Interviewees were asked about their overall impression of the program, what their favorite activities were, and if they had learned anything about themselves. In total, 24 focus groups (three to four participants each) and 40 individual interviews were conducted. The analysis process included open, axial, and selective coding as prescribed in Strauss and Corbin's (1998) work on qualitative data analysis.

### Results

Analyses identified seven distinct attributes related to participants' perceptions of this experience which are discussed in the following sections.

*Novel experiences.* Approximately 22% of the youth made comments regarding new experiences they had at camp. For some, it was the setting, (e.g., "I haven't been like in a place like this ever") for others, it was the activities (e.g., "I liked rafting too, because it was fun, and I had never tried it before"), and for some, simply being away from home was a new experience (e.g., "I have never been away from home for more than five days"). One female participant stated, "I don't know, at first I was kinda like, I don't know if I could go mountain biking and all this stuff,

because I didn't think I was an outdoorsy person.”

*Challenge.* Approximately 60% of the participants commented that they experienced challenge during their two weeks in the program. One male participant made the following comment regarding backpacking, “It was really hard and it was kind of a challenge to get there and to not like stop and ask for a million breaks.”

*Supportive relationships.* Youth made frequent comments regarding the important role the staff played during the program. Approximately 64% of the campers mentioned making friends with peers and the staff. One male participant commented about the kindness of the staff, “They're just so like loving and like they're so supportive of us and tell us to keep going.” Another female participant said, “I really like how everybody tried to make everybody feel important, like all the counselors and everybody.”

*Acquisition of new skills and knowledge.* Many participants entered the program with little or no experience and, consequently, had very little confidence in their ability to successfully engage in the program's activities. One male stated, “I came up here knowing like nothing about the wilderness, and I know like a ton of stuff about it now.”

*Increased self-confidence.* As a result of their participation in the program, many participants expressed a newfound sense of confidence. One participant recounted, “We went biking and it was really hard for me but I came through and ended out leading us and I learned for myself that I can, even though I've never tried things I can do really good at them.”

*Fun.* In addition to skill, knowledge, and confidence development, participants also had fun during even the challenge portions of the program. The youths' pairing of fun and challenge bears resemblance to flow theory's claim that challenge, in appropriate doses, is an essential component of optimal experiences (Csikszentmihalyi, 1990). For example, one male participant said, “I always thought biking was really fun but now I know that it could get a lot harder and could be more fun.”

*New self-perceptions.* Approximately 87% of the participants affirmed that they had discovered or developed new personal attributes and abilities. For example, 16 youth out of 44 commented that they successfully accomplished activities that they did not believe they were capable of completing. The following statement from one of the females illustrates this point:

Sometimes...because I'm heavier, some of the things that I think that other people can do, like sometimes I feel like I can't do it and I can't complete it. But today and the past few days I felt like that I can do what other people do if I just keep on trying...and taking risk[s] and even though you think you can't do it you really can.

## **Discussion**

In order to conceptualize potential relationships between the identified qualitative categories and their impact on identity development the *structured recreation identity formation framework* (SRIFF) Model (see Figure 1) was developed. While the data does not directly support causal relationships the authors believe it important to offer a preliminary framework to guide future research.

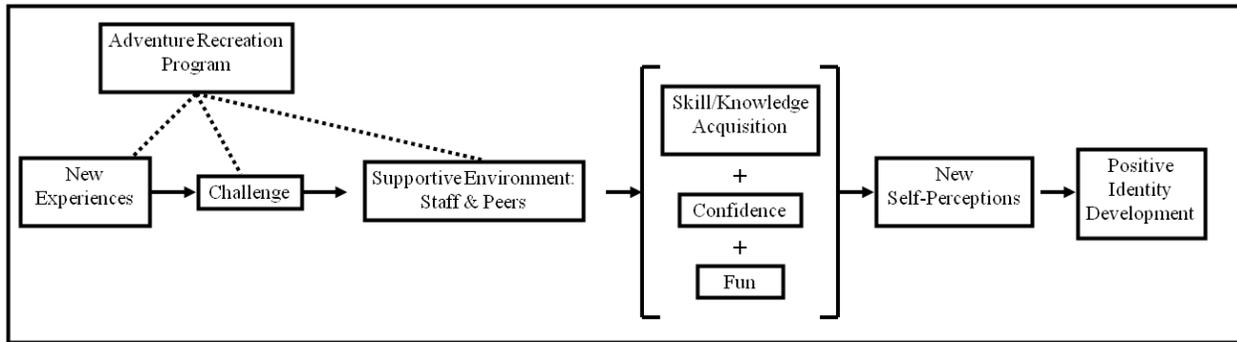


Figure 1. Structure Recreation Identity Formation Framework

It appears the newness of many of the activities led some participants to doubt their ability to successfully complete the more challenging activities. For example, approximately 36% of the youth commented that they felt they did not possess the necessary skills to complete some of the program's activities. One female participant stated, "I don't know, at first I was kinda like, I don't know if I could go mountain biking and all this stuff, because I didn't think I was an outdoorsy person."

Challenge also appeared to play a key role in the experience. While failing to overcome challenges can lead to developmental setbacks, overcoming challenges can result in developmental progress. The supportive and caring nature of the staff seem to have increased participants' likelihood of successfully engaging in challenging activities. As youth reflected on their participation many specifically mentioned the acquisition of new skills and knowledge, increased confidence levels, and simply having fun. Overcoming challenges and gaining new skills, knowledge, and confidence, in a fun environment appears to have led some youth to develop new, positive self-perceptions. As one male said, "I've learned if I put my mind to something I can pretty much do it, if not do it then get pretty much close to doing it, closer than I thought." From a theoretical perspective, the process of identifying, exploring and potentially committing to these new self-perceptions is identity formation in action.

As noted by Schachter & Ventura (2008), the field of identity research has traditionally been marked by a singular focus on the individual as a lone actor in identity formation. At the same time almost all other areas of developmental psychology have adopted a more holistic perspective of development wherein the individual exists within a milieu of bidirectional relationships with contextual and social elements (Lerner, 1998). The current study makes an effort to assist with the expansion of focus for identity research by attempting to qualitatively identify antecedent contextual elements and processes of identity formation. Future research is needed to further validate these findings and the SRIFF.

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## SEER 2010 ABSTRACT

# Experiential Education and Lifelong Learning: Examining Optimal Engagement in College Students

*Jim Sibthorp, Scott Schumann, John Gookin, Sheila Baynes, Karen Paisley, Kevin Rathunde*

### Introduction

One long-term goal of many experiential education programs is to instill a love of learning in their participants (e.g., Jiusto & DiBiasio, 2006). Students who enjoy learning often become lifelong learners and are able to self-regulate their own life path and educational endeavors in manners that keep them both highly engaged and highly productive. However, we know very little about how to foster lifelong learning in students.

In his seminal work, *How We Think*, educational philosopher John Dewey draws a distinction between education that is goal-relevant and education that is enjoyable. According to Dewey, education and learning can be both of these things at once (i.e., both enjoyable and goal-relevant or “optimally engaging”); neither of these (termed “disinterest”); relevant but not enjoyable (termed “drudgery”); or enjoyable but not relevant (termed “fooling”). Dewey (1910/1991) posits that the combination of enjoyment and goal relevance “defines the ideal mental condition” (p. 218).

Lifelong learners often show the ability to regulate their work experiences and learning in ways that are both goal-relevant and enjoyable or interesting. “It may be that contexts that promote more frequent experiences of interest and flow are the same type of contexts that support –over the long term –the development of experiential wisdom” (Rathunde, 2009). Experiential wisdom is a term Rathunde uses to describe the nuanced regulation that allows a person to plan for, and adjust situations in ways that provide both personally enjoyable and goal-relevant experiences. Such experiences are optimal in the sense that they maximize both momentary engagement (Rathunde, 2009), motivation for future engagement (Sansone, 2009) and potentially, an orientation toward lifelong learning.

A critical element in lifelong learning is the self-regulation of motivation to learn. Learners without motivation to learn lack the drive to actively engage with ideas and content, even if they have the ability to learn. Motivation for sustained engagement can be considered a combination of goal-relevant motivation and experience-defined motivation (the degree of interest in the process; Sansone, 2009; Sansone & Thoman, 2006). Through experience, individuals learn to regulate these two sources of motivation to create more sustained and optimal levels of motivation and engagement. Such regulation leads to more optimal engagement and greater sustained effort and is critical when considering learning. Learners who are able to self-regulate their motivation to learn by balancing goal-relevant motivation with experience-related motivations (i.e., enjoyment or engagement) will be more likely to continue engaging in the learning process, thus providing the necessary nutrients for lifelong learning. Therefore, one’s ability to self-regulate his/her motivation to learn is critical to sustaining learning over one’s life.

Given the recent work on lifelong learners and the self-regulation of motivation, experiential education appears well-suited to provide experiences that offer optimal engagement and ultimately, influence motivation for future learning. Therefore, the primary purpose of this study is to determine the effects of an experiential learning semester on both optimal engagement and orientation toward lifelong learning.

## Methods

During the fall of 2009, a convenience sample of NOLS semester students were invited to participate in this study. They were the 15 college students enrolled in a semester course in the southwest United States during the spring of 2010. The study relied on the Experience Sampling Method (Csikszentmihalyi & Larson, 1987), where participants were asked to complete experience sampling forms (ESFs) pertaining to two randomly assigned hour-long blocks each day over four separate week-long periods: (a) week one was before they began their semester course; (b) week two was in the first section of their semester course; (c) week three was during the third and final section of their semester course; (d) week four was after their semester course. In addition, each student completed a dispositional measure of enjoyment of learning to address any possible shifts in orientation toward lifelong learning.

The ESF included basic activity reporting, information on group size, and measures of enjoyment and goal-relevance from two subscales of the Intrinsic Motivation Inventory (IMI; McAuley et al., 1987). Specifically, the Interest/Enjoyment and Value/Usefulness subscales were adapted for this study. The latter subscale was customized (as recommended by the authors) to measure the activity's value/usefulness toward goal attainment. Participants were prompted twice daily, either by the research team or the semester course proctor, to complete the ESF pertaining to a randomly determined hour-long block earlier in the day. The procedure was to prompt participants around lunch time for an AM hour and around dinner time for a PM hour.

Using a similar protocol to Rathunde and Csikszentmihalyi (2005), these two measures allowed each of the participants' activity ratings to be placed into one of Dewey's four quadrants. "Disinterested" was below the individual's mean score on both enjoyment and goal-relevance. "Fooling" was below the individual's mean score on goal-relevance, but above the mean score on enjoyment. "Drudgery" was above the individual's mean score on goal-relevance, but below the mean score on enjoyment. "Optimal Engagement" was above the individual's mean score on both enjoyment and goal-relevance.

## Results

During the four weeks of data collection, 669 valid responses were collected from 15 different participants. The within subjects design with participant-level centering allows the participant to serve as his or her own control and allows for comparisons in quadrant frequency before, during (2 times) and after the experiential learning semester. Specifically, a crosstabulation table and Cramer's V were used to determine a relationship between quadrant and setting (each of the four weeks were treated as a different setting). Setting was a significant predictor of quadrant membership (*Cramer's V* = .183,  $p < .001$ ). See Figure 1 below. Interpreting only the significant standardized residuals, the number of hours categorized into the disinterested quadrant was highest for pre and post course. The number of hours categorized as fooling did

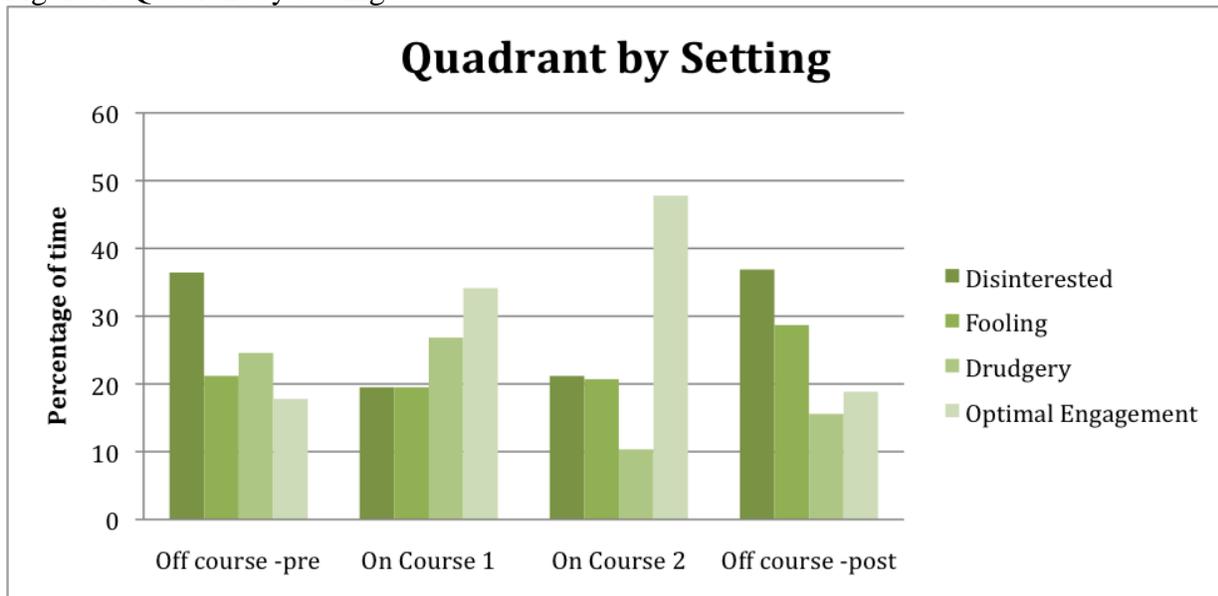
not significantly vary by setting. The number of hours considered drudgery was highest at on-course 1 and lowest at on-course 2. The number of hours categorized as optimally engaging was highest at on-course 2 and lowest at pre and post course.

Given the number of incomplete data sets at all four times on the dispositional measure of lifelong learning (a modified version of the IMI), while some of the descriptive statistics are trending in the hypothesized direction, none of these results were significant ( $p > .05$ ). In addition, from the activity and group size reporting, a change in how the activities were viewed was evident. Before the NOLS semester, sports was the most frequently reported activity in optimal engagement, and lab and chores were most frequently reported as drudgery. Practice was disinteresting. During the course, practice was more frequently viewed as drudgery (meaning the goal relevance increased) and traveling was more commonly viewed as disinteresting. Changes in optimal engagement by setting were not significantly moderated by activity. Students generally reported greater optimal engagement when with others.

### Discussion

The propensity for college students to experience optimal engagement appears to be more prevalent during an experiential learning semester than at college or home. Research literature indicates that such experiences can indeed lead people to become more motivated to self-regulate their learning. One possible explanation for these findings is simply the novelty involved in an experiential learning semester compared to more traditional college settings. There is good reason to believe that experiential learning semesters can help to foster the underlying nutrients of enjoyment and interest in learning which are necessary to create lifelong learners.

Figure 1: Quadrant by Setting



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## **SEER 2010 ABSTRACT**

# **How Group Experience Effects Outcomes from NOLS Programs: A Means-End Investigation**

*Marni Goldenberg, Katherine Soule, Jason Cummings, and Dan Pronsolino*

### **Introduction**

This study evaluates how being part of a group influences outcomes of National Outdoor Leadership School (NOLS) participants using means-end theory. This study examines outcomes from NOLS courses from the summer of 2006 in the Wind River Mountain Range of Wyoming. Immediately following 2006 course completion, a convenience sample of 345 individuals participated in semi-structured, in-person interviews. Semi-structured telephone interviews were conducted in 2007, 2008, 2009, and 2010 with a portion of the 2006 interview participants.

### **Literature Review**

Research examining issues related to group dynamics and development in wilderness adventure programs found that outdoor adventure programs had positive lasting effects (Ewert & McAvoy, 2000; Fielding & Hogg, 1997). Neill (2007) found that group development, processes, and dynamics have a major influence on the effects of outdoor education programs. Group characteristics such as reciprocity, cohesion, and trust contribute to the overall group effectiveness in an Outward Bound wilderness adventure program (McKenzie, 2003).

Means-end theory was used to analyze the differences in outcomes from original and follow-up interviews. Originally used to understand consumer decision-making, Gutman's (1982) means-end theory has application to outdoor recreation through such studies as understanding the outcomes associated with ropes course programming (Goldenberg, Klenosky, O'Leary, & Templin 2000; Haras, Bunting, & Witt, 2006) and examining the components of an outdoor adventure experience (Goldenberg, McAvoy, & Klenosky, 2005; McAvoy, Holman, Goldenberg, & Klenosky, 2006).

### **Methods**

Means-end theory focuses on the interrelationship between experience and meaning at three levels of abstraction that are hierarchical in nature: attributes, consequences, and values. Attributes are an individual's experiences (the means), such as group relations or hiking. Consequences are the direct results of an attribute, such as having fun or interacting with others. Values are the individual's desired end-state (the ends), such as gaining self-confidence or warm relationships with others.

Means-end data is collected using a qualitative research technique known as laddering. Laddering involves asking a series of open-ended questions that first asks the respondent to identify attributes that are memorable that they received from participation in their adventure program. The respondent is then asked why a particular attribute is important. The response

given is then the focus of the next, “why is that important?” question. This process of asking, “why is that important?” continues for each response given until the respondent can no longer provide a meaningful answer (e.g., the response is “I don’t know,” or “It just is...”). This process of laddering responses is repeated for each of the attributes that the respondent has identified in the interview.

For each data set, ladders are coded with content codes and entered into the LadderMap (Gengler & Reynolds, 1995) computer program. The content codes are analyzed by an independent coder to determine intercoder reliability. Implication matrixes are created to assess the number of times concepts are linked together, which then are displayed in graphical maps called hierarchical value maps (HVMs). An Excel database was created to track the number of times a particular participant mentioned each concept. Both the implication matrixes and Excel database were used to gather and analyze quantitative data.

## Results

Original data were collected from 348 NOLS participants. First year follow-up data was collected from 102 participants, 107 from year two, 121 from year three, and 135 from year four. All participants were called each year but some participants were unreachable. All follow-up participants were interviewed at least twice during the study.

The attribute of the *group experience* was both directly and indirectly linked with the consequence of *interactions* in all of the data sets. The values of *transference* and *warm relationships with others* were directly and indirectly linked with the consequence of *interactions*. These links appeared as predominant themes on the HVMs, as well as in the implication matrixes. *Group experience* was mentioned by 39.08% of participants in the original data, by 24.51% in the year one follow-up, 54.21% in year two, 55.37% in year three, and 49.63% in year four. *Group experience* was linked to *interactions* in 74.32% of the ladders in the original data that mentioned *group experience*, in 84.62% in the year one follow-up, in 82.54% in year two, in 79.71% in year three and in 75.71% in year four. *Group experience* was linked to *transference* in 25.68% of the ladders in the original data that mentioned *group experience*, in 26.92% in the year one follow-up, in 44.44% in year two, in 56.52% in year three, and in 28.57% in year four. *Group experience* was linked to *warm relationships with others* in 43.24% of the ladders in the original data that mentioned *group experience*, in 19.23% in the year one follow-up, in 47.62% in year two, in 17.39% in year three, and in 32.86% in year four. *Interactions* was linked to *warm relationships with others* in 18.29% of the ladders in the original data that mentioned *warm relationships with others*, in 20.51% in the year one follow-up, in 23.02% in year two, in 22.29% in year three, and in 18.14% in year four. *Interactions* was linked to *transference* in 70.53% of the ladders in the original data that mentioned *transference*, in 69.23% in the year one follow-up, in 58.82% in year two, in 57.69% in year three, and in 65.71% in year four.

## Discussion

Validating previous research, results from this study show that group experiences from outdoor adventure programs positively impact individuals’ lives. Goldenberg et al. (2005) found that Outward Bound participants who recalled group interactions from their course connected this attribute to helping develop relationships with others and working as a team. Group dynamics related outcomes such as teamwork, group leadership, intra-group trust, improved

communication, and conflict resolution developed through adventure education (Ewert & McAvoy, 2000; Sibthorp, 2003; Sibthorp, Paisley, & Gookin, 2007). Sibthorp, Paisley, Furman, and Gookin (2008) found that group dynamics and development related variables were learned and transferred from NOLS courses, though it was likely that specific outcomes were dependent on the nature of the group.

As a longitudinal study, this research goes beyond the prior research to indicate that *group experience* is a vital aspect of NOLS courses even several years after course completion. The group experience led to developing relationships, building community, and opportunities for teamwork within the group, labeled under *interactions* for this study. These interactions with the group eventually led to participants gaining and reinforcing values, particularly the motivation to transfer course benefits and consequences to other areas of one's life, such as warmer relationships with others.

Understanding how group experiences impact participants' lives allows course programmers to specifically program for these course benefits and consequences by further incorporating *group experience* or to develop new programs with this emphasis. Additionally, such information may assist with marketing and future fundraising efforts to validate and justify the emphasis that participants will learn group skills through course participation.

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## **SEER 2010 ABSTRACT**

### **An Exploratory Study of a Wilderness Adventure Program for Young Offenders**

*Keith C Russell and Michael Allen Walsh*

#### **Introduction & Literature Review**

In a recent study, Kutcher and McDougal (2009) describe how a “lack of accessible and appropriate mental health care for youth is causing alarming increases in the numbers of juvenile offenders suffering from mental health problems. Though statistics vary, some studies have shown that that up to 88% of males, and 92% of females, who are in the juvenile justice system meet the criteria for at least one psychiatric disorder, and 50% meet the criteria for at least two disorders (Murrie, Henderson, Vincent, Rockett & Mundt, 2009). As more and more adolescents in correctional facilities indicate a need for mental health services, researchers and programmers have shifted their focus to designing and implementing appropriate developmental programs for youth (Gillis, Gass, and Russell, 2007). During the past fifty years, wilderness and adventure programs have been utilized as a therapeutic intervention for adolescents involved in America’s juvenile justice systems. The program that is the focus of this research project is the Wilderness Endeavors Program, a correctional wilderness and adventure program for youthful offenders in the state of Minnesota. The purpose of this exploratory study was to examine the contributions of perceived self-efficacy, resilience, and hope in youthful offenders who participate in a wilderness adventure program, and how these contributions impact future recidivism.

The study is framed in a base of literature that proposes that wilderness and adventure experiences for adolescents enhance self-competency through wilderness and adventure-based travel in remote environments in an intense social milieu, which leads to the development of intra- and inter-personal skills strongly linked to the concept of resiliency, which leads to an enhanced sense of hope for adolescents that they can overcome certain challenges in their lives, which ultimately results in a reduction of recidivism after the completion of the wilderness experience. The following research questions guided this study: 1) What are the effects of the Wilderness Endeavors Program experience on participants’ self-efficacy, resilience, and hope for the future? 2) Does the successful completion of the Wilderness Endeavors Program have a long- term (six months) positive impact on future offending behaviors of participants, as compared to a control group of similar youth referred to some other correctional disposition? 3) What are the contributions of self-efficacy, resilience, and hope to recidivism in Wilderness Endeavors Program participants? 4) What effect does the demographic and risk characteristics influence recidivism in Wilderness Endeavors Program graduates?

#### **Methods**

The specific research design to address the questions presented in this study is best described as a quasi-experimental, matched-pair design using pre-, post-, and follow-up assessments with a non-randomized control group (Gall, Gall & Borg, 2004). All participants in the Wilderness Endeavors Program between June 2008 and May 2009 were considered potential study

participants. The admissions and screening criteria process followed by Thistledeew staff was utilized by the researcher to develop the sampling frame. All data was collected upon admission to the program during intake procedures and at discharge from the program at graduation. All instruments were administered by a Masters level therapist. Probation officers for both control and treatment youth were contacted six months after release, and interviewed to determine probationary status and re-offense rates.

The Perceived Competence of Functioning Inventory (PCFI) was used to measure self efficacy (Prairie View Solutions, 2003). The PCFI has been normed on hundreds of youth, and assesses four domains associated with perceived self competence. To measure Hope, the six-item self-report Children's Hope Scale (CHS) was utilized. The scale is a trait-based measure of hope in a general sense, and was not developed to assess the relative hopefulness toward achievement of any specific or identified goal or task. Two subscales defined as *Agency* and *Pathways* are reasoned to comprise hope. *Agency* refers to general initiative and movement towards goals, while *Pathways* refer to a youth's perspective of their capabilities to accomplish their goals. Change scores are evaluated and expressed in terms of effect size. The Adolescent Resiliency Attitudes Scales (ARAS), developed by Wolin and Wolin (1993), were used to assess resiliency. Scale reliabilities of the ARAS have been reported as good to excellent ( $\alpha = .81$ ) for the total scale in adolescent samples (Pinamaki, Quota, Sarraj & Montgomery, 2006).

## Results

There were a total of 33 males and 10 females participating in treatment group. Ethnicity was categorized as white/non-white, due to the small sample size of this study. In the treatment group, approximately 60% were white, and 40% were of non-white. Approximately 86% of the study participants in the treatment sample were between the ages of 14 and 17, with average age of 15.8. Over half of the treatment group (59%) was between the ages of 13-15 when first involved with the juvenile justice system. The control group, as they were matched based on age, gender, ethnicity, and age of first offense, did not show any statistical difference to the treatment group on any of the demographic variables.

The analysis showed significant increases in self-efficacy,  $t(42)=-2.331, p=.02, d=.35$  and hope ( $t(42)=-.2.004, p=.05, d=.30$ ) for Wilderness Endeavors Program graduates. Increases in resilience were not significant,  $t(42)=-1.100, p=.27$ , with a small effect size ( $d=.16$ ), suggesting that participation in the Wilderness Endeavors Program had no significant impact on resilience. The significant increase in self-efficacy is supported in previous studies that examined the effects of challenge programs on the participant's self-efficacy (Hattie, Marsh, Neill, & Richards, 1997; Paxton & McAvoy, 1998; Propst & Koesler, 1998). Furthermore, the significant increases in hope for the future, and its association with self-efficacy, is also supported in the psychological literature;(Valle et al, 2006). Not surprisingly, hope scores also increased significantly due to participation in the Wilderness Endeavors Program. Binary logistic regression was also utilized to model how change scores in self-efficacy, hope, and resilience related to recidivism for the treatment group. The data showed a good fit for the model ( $\chi^2(df=8, N=43) = 7.48, p=.39$ ), and revealed that an increase in hope scores was the only psychological trait that approached significance (although not statistically significant), suggesting that higher hope scores lessened the likelihood of an individual recidivating (OR=1.211). Changes in self-efficacy (OR=.949) and resilience scores (OR=.991) had little to no relationship with recidivism.

The second research question sought to investigate if there was a relationship between the successful completion of the Wilderness Endeavors Program, and the future offending behaviors of participants, as compared to a control group of youth with similar demographic and risk characteristics. The results of the analysis revealed that the program *did not* have a significant impact on recidivism of participants as compared to the control group subjects. Recidivism rates were approximately 44% for the treatment group, and 42% for the control groups. Limitations of the study include the limited access to control group participants, which resulted in no measures of self-efficacy, hope, and resilience being administered to this group. The MN DOC Research Advisory board would only allow a matched-pair design to be used to select, match, and compare recidivism rates at follow-up. Recommendations from this study include the need to establish appropriate follow-up and transition services for youth leaving programs like WE to maintain progress that has been made in the wilderness intervention.

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## SEER 2010 ABSTRACT

# Decoding the Voluntourism Process: A Case Study of the Pay It Forward Tour

*Andrew W. Bailey and Irene K. Fernando*

### Introduction and Literature Review

Service-oriented vacations are becoming increasingly popular among all age groups. These trips satisfy one's longing for adventure while providing valuable services to the communities visited. Recent surveys conducted by the Travel Industry Association (TIA, 2006), the University of California, San Diego (Lovitt, 2008) and Conde Nast Traveler (DeVries, 2008) indicate that interest in volunteer vacations is growing steadily. This is a heartening trend amidst mounting evidence of civic disengagement in America (The National Conference on Citizenship, 2006). Voluntourism refers to the use of "discretionary time and income to travel out of the sphere of regular activity to assist others in need" (McGehee & Santos, 2005, p. 760). These experiences have been shown to raise consciousness and increase interest in activism (McGehee, 2002; Wearing, 2001), and to increase pro-social values, affection for others, and perspective-taking (Bailey & Russell, 2008; 2010).

While outcome studies play a vital role in establishing program value, successful programs cannot be replicated without knowledge of the key process variables. Case studies have helped to elucidate certain processes, but these studies lacked a comprehensive outcome evaluation determining the average program impact for all participants (Lyons & Wearing, 2008). Other researchers have approached this dilemma in a variety of ways, including open-coding of process variables through grounded theory (Paisley, Thurman, Sibthorp, & Gookin, 2008), and through means-end analyses (Goldenberg & Pronsolino, 2008). The current study utilized a combination of schema and open coding to determine the learning mechanisms which most affected growth in outcome domains.

### Methods

In March of 2008, 288 college students at a university in the upper mid-west participated in the Pay It Forward Tour (PIFT). This tour combined cross-country travel with community service and group reflection in an effort to "reveal leaders" and encourage civic engagement. Participation was voluntary, and two-thirds of the participants were female. Latent Growth Analysis indicated that participants showed significant and lasting increases in reflectivity, affection, civic attitude, and openness (Bailey & Russell, 2010). One month after the tour, participants were asked "What was the most important thing you learned from the Pay It Forward Tour?" followed by a request to identify which aspect of the tour facilitated that learning outcome. There were 147 complete responses to these open-ended questions, resulting in a 51% response rate. The learning outcome responses were coded into a-priori categories using the schema method (Russ-Eft & Preskill, 2001), coinciding with the five outcome variables measured through quantitative analyses: Cognition (e.g. one's desire and motivation to understand phenomena on a deep level), Affection (e.g. compassion), Reflection (e.g.

perspective-taking), Openness (e.g. seeking new experiences), and Civic Attitude (e.g. efficacy and responsibility towards society). The learning mechanisms were categorized in a manner consistent with grounded theory (Strauss & Corbin, 1990). Two researchers separately conducted open and axial coding, utilizing the constant comparative method to reveal the emergent themes. Given the short responses and the well-defined outcome categories, the coders were able to agree on all but three responses. These responses were removed from the data.

## Results

The learning outcomes were categorized into the following categories: Civic Attitude ( $n = 46$ ), Reflective ( $n = 38$ ), Affective ( $n = 24$ ), Openness ( $n = 19$ ), and Cognitive ( $n = 17$ ). The three emergent themes for the mechanism of learning were labeled Relationships, Service Activities, and Program Activities. Relationships included conversations with other participants and community members, an example of which included: “The conversations on my bus were what helped me to learn about how I treat others”. Service activities refer to the events and feedback involving direct community service, illustrated by the following: “Through the service projects and the way the communities reacted by having us do the projects”. Program-Activities include other events (i.e. games, reflective activities) that were built into the program, but did not include community service. An example of these responses is: “The activities we had every night as a group are the reason why I can consider myself changed in a good way, and for good”.

The learning mechanisms associated with each domain can be seen in Table 1. The Program activities were seen as the most salient overall domain (41%), and were most effective at encouraging growth in the Reflective domain. Service activities were also mentioned frequently (36%), and these activities were disproportionately connected to increases in Civic Attitude. Finally, Relationships were mentioned by almost one-quarter of participants (23%). The Relationship components had a nearly equal effect on all learning outcomes.

## Discussion

While there are few direct comparisons to be made in the literature on voluntourism, the results are consistent with those of comparable experiential programs. For example, Lakin and Mahoney (2006) found that increases in pro-social attitudes and efficacy were mediated by empowerment and sense of community in a service-learning experience. In our study, civic attitudes were enhanced mainly through participation in service activities, which often resulted in the realization that even a small effort can make a big difference. This awareness may result in the empowerment and the conviction to serve again in the future.

McKenzie (2003) identified similar learning mechanisms connected to learning outcomes for Outward Bound participants, three of which overlap substantially with those identified in our study: Course Activities (Program activities), Service (service activities), and Social Environment (Relationships). A few mechanisms were clearly more salient for certain domains. Civic Attitude, for example, was strongly influenced by service activities. In addition, reflectivity was enhanced mainly by intentional program activities. This seems to indicate that certain outcomes can be enhanced through intentional programming. The contribution of incidental relationships to learning outcomes should not be overlooked. Though the Relationships mechanism did not contribute strongly to any one outcome, it did account for nearly one-quarter of the overall influence. It is also likely that the three learning mechanisms

have a reciprocal influence on one another. Programmed group interaction may pave the way for incidental relationships to form. This study helps elucidate the mechanisms of learning for specific outcomes associated with a volunteer travel experience. Future research will need to be done to determine if this learning model is applicable in other volunteer tourism programs and to determine the interactive effects of these learning mechanisms.

**Table 1**  
**Total (and Percentage) of Responses for each Learning Outcome & Learning Mechanism.**

	Civic Attitude	Reflective	Affective	Openness	Cognitive	Percent (LM)*
Relationships	5 (11)	8 (21)	7 (29)	7 (37)	6 (35)	23
Service	34 (74)	6 (16)	6 (25)	3 (16)	3 (18)	36
Program	7 (15)	24 (63)	11 (46)	9 (47)	8 (47)	41
Percent (LO)**	32	26	17	13	12	

\* Percentage of Total responses for each Learning Mechanism

\*\* Percentage of Total Responses for each Learning Outcome

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## **SEER 2010 ABSTRACT**

# **Spiritual Development of Adolescents in Adventure-Based Programs in Hong Kong**

*Ackie C.K. Cheung*

### **Introduction**

Experiential programs have become a core part of extra-/co-curricular-activities in secondary schools in Hong Kong. Programs usually aim at enhancing youngsters' personal development, which incorporates self-understanding, self-other-relationship as well as self-social involvement (cf. Hahn, 1908-1913). Students are expected to acquire a stronger belief in self and reflect upon their self-belief, including along the spiritual dimension. This paper discusses the development of students' spiritual views in particular.

### **Literature Review**

Spirituality can be understood in terms of striving towards an inner-self and developing deeper meaning for life (Daniel, 2007; Frankl, 1946/1984; Watson, 2000), and seems to be gaining ground in Hong Kong. Researchers in the Western spiritual tradition found that caring for a person's spiritual needs/practices not only evoked a deeper searching and honoring of life meaning (Muff & Engelhardt, 2007), but also enhanced their justice-seeking activities (Hanna & Green, 2004; Lee & Barret, 2007). Research on experiential programs in Western societies, especially adventure programs, showed a catalytic effect on adolescents' spiritual growth (Griffin & LeDuc, 2009). Others also claimed a significant positive impact on adolescents' social, behavioral and intellectual change (Daniel, 2007).

In a Chinese context, research on the spiritual dimension of adolescence is still emerging. Part of this research project set out to examine how, through participation in adventure-based programs, youngsters connected their spiritual understanding to themselves and others in one former British colonial city, in which both Eastern and Western religious/spiritual practices are observed. A discourse with regard to the concepts of collectivism and individualism is believed to be related to the function of those programs.

### **Methods**

The project followed a case study approach, examining several adventure-based programs within a larger school context. In 2009 and 2010, expert interviews, school portraits and webpage analyses on the use of an experiential approach in the school context were conducted. On-site observation of adventure-based programs and survey questionnaires collected pupils' perceived self- and spiritual understanding. Moreover, non-structured episodic interviews collected the responses of the participating school staff, program tutors and some pupils. It was believed that use of quantitative and qualitative data would allow for triangulation (Merriam, 1998; Yin, 2003).

This paper focuses particularly on the findings of the quantitative questionnaire. A total of 318 participants, aged 16 to 19, responded to a survey regarding the extent of their agreement to statements concerning self-understanding prior to and after participation in an adventure-based program. Organized by schools and a church organization, the programs lasted from three to four days. Their core activities included backpacking and mountain orienteering. The questionnaire investigated four aspects of self development: self-concept, self-efficacy, learning climate, and a spiritual dimension.

In the spiritual dimension, twelve variables were measured and grouped under two categories. One category was related to spiritual understanding in close connection to religious belief and practice (cf. Bregman, 2006; Standfest et al., 2005). Good internal consistency was reported for these items (Cronbach’s  $\alpha$  ranged from .83 to .92). The other, adopted from WHOQOL SRPB Group (2006) had a looser connection to religious belief and practice (cf. Heelas, 2005). The alpha values of these items ranged from satisfactory ( $\alpha = .55$ ) to good ( $\alpha = .90$ ).

## Results

The quantitative findings showed whether participants rated their opinion regarding their self-development differently. The mean values of all four aspects of self development, especially social self-concept, general self-efficacy, learning climate and the spiritual dimension post-participation were significantly higher than prior to the participation (see Table 1). All variables of the spiritual dimension showed a significant difference at the  $p \leq .05$  level.

Table 1: Mean pre/post values of spiritual development factors

	Pre-test		Post-test	
	M <sub>1</sub>	SD <sub>1</sub>	M <sub>2</sub>	SD <sub>2</sub>
Religious Conviction	2.26	0.30	2.47	0.26
Religious and Spiritual Practice	0.99	0.74	1.14	0.83
Importance of Spiritual Dimension	1.54	0.33	1.96	0.39
Spirituality Encouragement	1.77	0.29	2.15	0.35
Life Orientation Test-Revised	2.14	0.40	2.37	0.52
Existential Well-Being Scale	2.42	0.31	2.68	0.35
Meaning & Purpose in Life	2.07	0.20	2.21	0.32
Experiences of Awe & Wonder	2.09	0.13	2.40	0.12
Wholeness & Integration	1.75	0.19	2.03	0.13
Hope & Optimism	1.92	0.14	2.36	0.23
Faith	1.65	0.06	2.00	0.08
Kindness to others	1.86	0.19	2.39	0.30

The variable RSP (Religious and Spiritual Practice) received the lowest mean values, both pre- ( $M=0.99$ ,  $SD=0.74$ ) and post- ( $M=1.14$ ,  $SD=0.83$ ) participation in adventure-based programs ( $t(634)=2.41$ ,  $p < .05$ ). The RSP measured the frequency of participants’ taking part in religious and spiritual practices. The noticeable highest mean value prior to ( $M=2.42$ ,  $SD=0.31$ ) and after the participation ( $M=2.68$ ,  $SD=0.35$ ) was found with the variable EWB (Existential well-being) ( $t(634)=10.06$ ,  $p < .01$ ). This scale relates to a personal assessment of one’s sense of life purpose and life satisfaction. These quantitative findings showed the participants experienced some difference in their self-development, particularly spiritual development.

## Discussion

The spiritual dimension is seldom measured quantitatively. This project allowed the participants to show responses in a simple way. Moreover, it has been described as one construct in this paper but it embodied twelve variables, which relate to different concepts related to spirituality. Spirituality may have something to do with a mixture of Chinese and Western religious beliefs/practices in the Hong Kong context. Looking at one variable alone may suggest some development in one aspect. The positive development of the variable EWB seemed to reflect that students showed a higher degree of agreement to believing there is some real purpose for their life. The RSP measured the frequency of participants' taking part in religious and spiritual practices. Students reported that they rarely take part in religious/spiritual practices such as reading books that have something to do with religion or spirituality. The study further showed that adventure programming did not change this, which is unsurprising. The results have not shown whether there was any correlation between the variables within the construct unless further analysis on this is conducted.

Many investigations usually employed a combination of approaches in discovering the spiritual dimension (Bregman, 2006; Daniel, 2007; Hanna & Green, 2004; etc.). This project also takes a combined approach to capture the ideas of spirituality. In an episodic interview several students spoke of spiritual dimension, employing the religious concept of fate that determines one's life purpose. These students apparently believed that their life purpose is given through a communal determination. Their participation in the program seemed to have prodded students to reflect on their own realization of life purpose and strive for an individual spiritual self.

At this stage, the findings require further analysis and combined interpretation of the quantitative and qualitative findings. Possible connections between some elements in the programs that could have triggered this positive spiritual development of participants are expected to be discovered through this process. Eventually, the researchers hope to gain clarity on the ideas concerning spirituality, the elements that evoke spiritual development in programs, as well as the concept of collectivism and individualism with regard to the function of experiential education.

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## **SEER 2010 ABSTRACT**

### **Black and White Thinkers and Colorful Problems: Intellectual Differentiation in Experiential Education**

*Rachel Collins, Karen Paisley, Jim Sibthorp, & John Gookin*

#### **Introduction**

To be effective as experiential educators, we need to understand the developmental characteristics of our students so that we can tailor our programs to their capabilities. Often, our primary population consists of teens or college students. Recognizing that learning is a primary objective of experiential education programs, understanding our students' intellectual processes, specifically, can enhance our effectiveness.

#### **Literature Review**

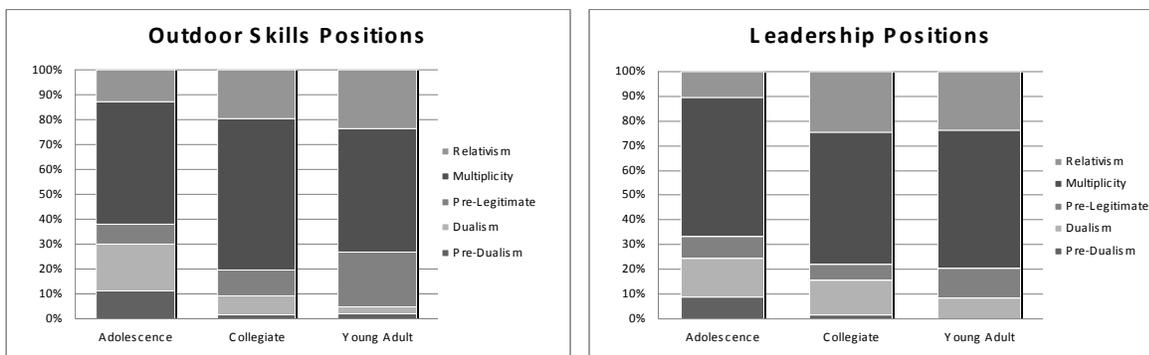
Building from the work of Piaget and Kohlberg, Perry (1999) provides a theoretical framework for understanding the knowledge construction of collegiate students, identifying three "positions" of learning: Dualism (knowledge is quantitative (i.e. memorized facts) and must come from an authority knower); Multiplicity (different views of knowledge can be potentially correct before the answer is known); and Relativism (opinions of peers and non-authorities are considered and weighed in with the authority knower). Kitchener and King (1990) expand Perry's work to a larger range of ages (from 16-33), allowing a more concrete perspective on the positions that precede Perry's Dualism. As such, an additional stage representing the intellectual positionality of students seventeen and younger can be added to Perry's original framework. This position, called Pre-Dualism, distinguishes itself through the learners' strict adherence to more didactic learning mechanisms; students can learn from classes, where knowledge is imparted, but not from role-modeling, where it must be discerned. It is important to note that these models were developed based on research within traditional educational settings. However, we know that the experiential education "classroom" is radically different in important ways relevant to intellectual development. In traditional classroom environments, students are usually presented with "well-structured" problems that have definitive answers and change little over time and context. In contrast, the experiential classroom presents "ill-structured" problems to facilitate learning. "Ill-structured" problems require students to navigate between gradients of better or worse answers, rather than to choose between right and wrong answers (Kitchener, 1990). Perry's positions hold across many settings and populations (Love, 1999), but have not been examined in an experiential education context. Considering the stark difference in the nature and structure of the problems presented in traditional vs. experiential contexts, the purpose of this study is to examine the relevance of Perry's model of intellectual differentiation to participants in an experiential education setting.

## Methods

Between June 2005 and February 2007, 3,154 students from the National Outdoor Leadership School (NOLS) completed the NOLS Outcome Instrument after their courses. This study focuses on responses to two questions: Q1) Of the following 6 stated outcomes of a NOLS course (Communication, Environmental Ethics, Expedition Behavior, Leadership, Outdoor Skills, or Risk Management) which one did you most learn? Given this response, Q2) how did you best learn this outcome (open-ended)? We delimited our focus to students who stated they learned the most about Outdoor Skills or Leadership and, to correspond to the age segments in the intellectual development models, divided participants into three age groups: Adolescence (14-17), Collegiate (18-21), and Young Adults (22+). We also eliminated data which provided no room for interpretation, resulting in a usable sample of 721. Using each student's entire response as the unit of analysis, data regarding *how* students learned were enumerated into one of four positions: Pre-Dualism, Dualism, Multiplicity, or Relativism. Coding each student's response in only one category allows for computation of percentages and comparison of relative magnitude.

## Results

Data analysis suggested the addition of a fifth position to best represent the sentiments expressed by students. This position, Pre-Legitimate Multiplicity (Perry, 1999), involves learning that acknowledges multiple mechanisms through which learning can occur, with a strong reliance, still, on the authority knower for right and wrong answers. Beyond that, consistent with Perry's model, the figures below show trends that suggest decreasing presence of lower positions among older students. For example, regarding Leadership, Pre-Dualistic learning techniques were less common among Collegiate than Adolescence, and were absent for Young Adults. Further, higher positions are more observed among older students as is demonstrated by the increasing presence of Relativism when learning Outdoor Skills.



## Discussion

This study lends insight into the intellectual development of our students. The positions of learning present among different age groups in the traditional, well-structured classroom parallel those observed in the ill-structured, experiential classroom. This study suggests that younger students are more likely to be using Dualistic mechanisms to learn new knowledge and skills, seeing their learning as having strict right and wrong answers relying heavily on instructors to impart this knowledge to them. However, older students are less reliant on instructors as the sources of their knowledge and are more open to learning from diverse sources and mechanisms.

Experiential education, fraught with ill-structured problems, relies on a process of discovery and evaluation for knowledge development or skill acquisition. This is intentional, as the skills we teach (leadership, decision making, problem solving, etc) cannot be bound or defined by either purely right or purely wrong answers. However, results of this study suggest that adolescent students may still consider answers to such problems as definitive, relying heavily on authority knowers (instructors) to solve problems and being unable to recognize that their peers or environment offer knowledge from which they can learn. How, then, do we teach ill-structured problems to adolescent students who are not yet “wired” to think about learning this way? These students need formal classes, demonstrations, and other more didactic approaches to fully learn about a problem or skill they are working to understand. Older students, then, orient toward “Multiplicity” and it is critical that instructors use the coaching mechanisms of Pre-Legitimate Multiplicity to begin to model higher level thinking and learning techniques so that students begin to incorporate learning into their own schemes. Collegiate or young adult students are capable of tackling ill-structured problems in a more individual, exploratory sense. They may see that any one answer may not be either truly wrong or truly right, but potentially both, and are in a position to understand the contextual usefulness of feedback from non-authority sources (peers, environment, etc). We need to recognize that students’ ages suggest the frameworks through which they can ingest and process the knowledge and skill outcomes that the experiential classroom seeks to facilitate.

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## **A Brief History of the Symposium on Experiential Education Research (SEER)**

*Keith Russell (SEER Co-Chair 2006-2008)*

The Symposium on Experiential Education Research (SEER) is a research symposium that provides an outlet and venue for researchers in the field of experiential education to present, share, dialogue, and further develop their research ideas.

The first SEER took place at the Association for Experiential Education's (AEE) 2001 International Conference in Charleston, West Virginia. Fittingly, it was Dr. Alan Ewert of Indiana University who conceived of and led the effort to establish that first SEER. A widely published researcher and author in the field of adventure-based education, Dr. Ewert is also known for his distinguished career in academia, three decades as an Outward Bound instructor, as holder of the Patricia and Joel Meier Outdoor Leadership Chair, past editor of the *Journal of Experiential Education*, and as fellow and past president of the prestigious Academy of Leisure Sciences. In providing the leadership to launch SEER, Dr. Ewert was giving back to the field that he has helped develop throughout his academic and professional career. The symposium occurs concurrently with the International AEE Conference each year and involves the presentation of research papers from leading international scholars in the field of experiential education. The process by which papers are selected for SEER begins each spring, when a call for papers is released in the *JEE*, on listservs, and other outlets, asking researchers, graduate students, and practitioners to submit their abstracts to a blind, peer-reviewed process that is facilitated by the co-chairs of SEER. After receipt of the abstracts the affiliations are stripped from each paper and they are sent out for blind review to a panel of researchers in the field. Abstracts are reviewed for relevance to the field of experiential education, research methodology, and logic and clarity in writing. The papers are then ranked, and the top abstracts are selected for presentation at the Annual International AEE Conference. In addition to presentation, the abstracts are published as a booklet, which is distributed at the conference and in the spring edition of the *Journal of Experiential Education*. Reading these abstracts is a great way to glimpse current research interests and cutting-edge research methodologies in the field.

In Little Rock, Arkansas (2007), the SEER program was modified to 90-minute, theme-based sessions. In this way, papers were grouped by topic in order to better promote SEER to practitioners and other conference attendees so they could attend sessions of interest.

Each presenter is allotted 20 minutes to present his/her research, which typically includes an introduction, a description of the methods employed, and the results and conclusions developed from the research. We hope that these shorter theme-based sessions will continue to be of interest to attendees and the broader membership of AEE. In addition to the papers presented, discussant remarks are offered each year by leading scholars, practitioners, and leaders in the field of experiential education. This provides a unique opportunity for substantive dialogue around current research.

Beginning in 2008 SEER partnered with the Council on Research and Evaluation (CORE) in to explore ways to support the needs of AEE members and expand research in the field. As the field continues to grow and evolve in a social, political, and economic context, research will play a vital role in helping maintain and further the mission of experiential education in helping children, youth, families, and communities. To this end, research in educational, therapeutic, recreational, and other experiential learning settings are all welcome in SEER. It is our hope that SEER will be one of the many mechanisms for helping further AEE's mission in the years to come.

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