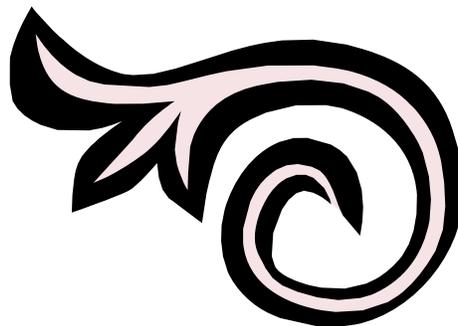# Abstracts

from the

Symposium on Experiential Education Research (SEER)

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November 4-7, 2004

Welcome to SEER

Welcome to the Third Annual Symposium on Experiential Education Research (SEER). The purpose of this Symposium is to provide you with a formal setting for the reporting of research findings germane to the fields of Experiential Education. Toward that end, all the research presentations were blind reviewed by a panel of referees. There were almost 20 submissions for the 12 available presentation slots. Whether accepted or not, the authors who submitted material should be congratulated for their efforts. In many cases, their works were not selected because of the strict time constraints and not because of any deficiencies in the quality of their work.

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 this idea a reality. First, the AEE and its various staff members including Evan Narotsky and AEE Executive Director Kris VonWald and the 2004 conference host committee for their support and coordination of SEER.

Much appreciation goes to the many scholars and academicians who graciously served as reviewers of the submitted abstracts: Leo McAvoy, Marni Goldenberg, Ken Gilbertson, Aram Attarian, Lee Gillis, Cheryl Estes, Christian Itin, Denise Mitten, Constance Russell, Steve Simpson, and Alison Voight. We would also like to thank Mike Gass and Denise Mitten for providing for the opening and closing comments to the Symposium and Greg Hitzhusen and T.A. Loeffler for providing summaries and reactions to the sessions.

And finally, a special thank you is given to the attendees of the Symposium, as it is on you and the other members of the experiential education community that this Symposium is focused. For without you and the various educational endeavors you provide within the experiential education rubric, all of our efforts would be for naught.

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

Alan Ewert
Jim Sibthorp
SEER Coordinators, 2004

Comprehending the value structures influencing significance and power behind experiential education research

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The purpose of my presentation today is to draw attention to several of the dynamics connecting research to the current value and livelihood of the experiential field. These dynamics ultimately have a large affect on our ability to serve the clients with whom we work as well as the advancement of the field.

While my opening statement sounds innocuous enough, the rest of my talk will probably be much more contentious. At the heart of my beliefs lies an unsettling thought that some of the assumptions our field operates under mislead us in our efforts to validate and advance the field. It also has led to us conduct research in ways that aren't really that beneficial for the present or future of the experiential field. I guess before I get started, I'd like to do a little "begging for your collegial forgiveness" since I may upset some you with a number of the things I'm going to say.

I've always liked the interpretation of research as a field whose roots come from the Latin term "rescisco" (meaning "to find out facts or understand and know through inquiry") and "servo" (meaning "to watch or observe"). Along with these valuable processes, when designing and conducting research there are equally valuable considerations researchers need to be aware of that I don't think we pay enough attention to:

(A)   Who is affected by our research?
(B)   Who evaluates our research?
(C)   How will the research be used once it is completed?

Many of these dynamics are interrelated in a systemic manner. For example, several stakeholders involved in the system surrounding one research study on youth may include a single adolescent, peer group, family, school, neighborhood, local community, state/provincial government, profession as well as supporting institution of the researcher, federal government, and global community. Each of these constituents make judgments on what our research tells them, whether our research is of value to them, and how they can use elements of our research to improve their lives.

It is important to acknowledge and understand the interconnectedness between these stakeholders and their value systems. The systemic influence from one group of stakeholders to another is like the various influencing substructures displayed in Figure 1. Each has its own individual characteristics, but previous structures are contained within the larger structures of a greater system. When stakeholder systems complement one another, research tends to achieve its intended results; when these stakeholder systems are conflicted, problems tend to arise.
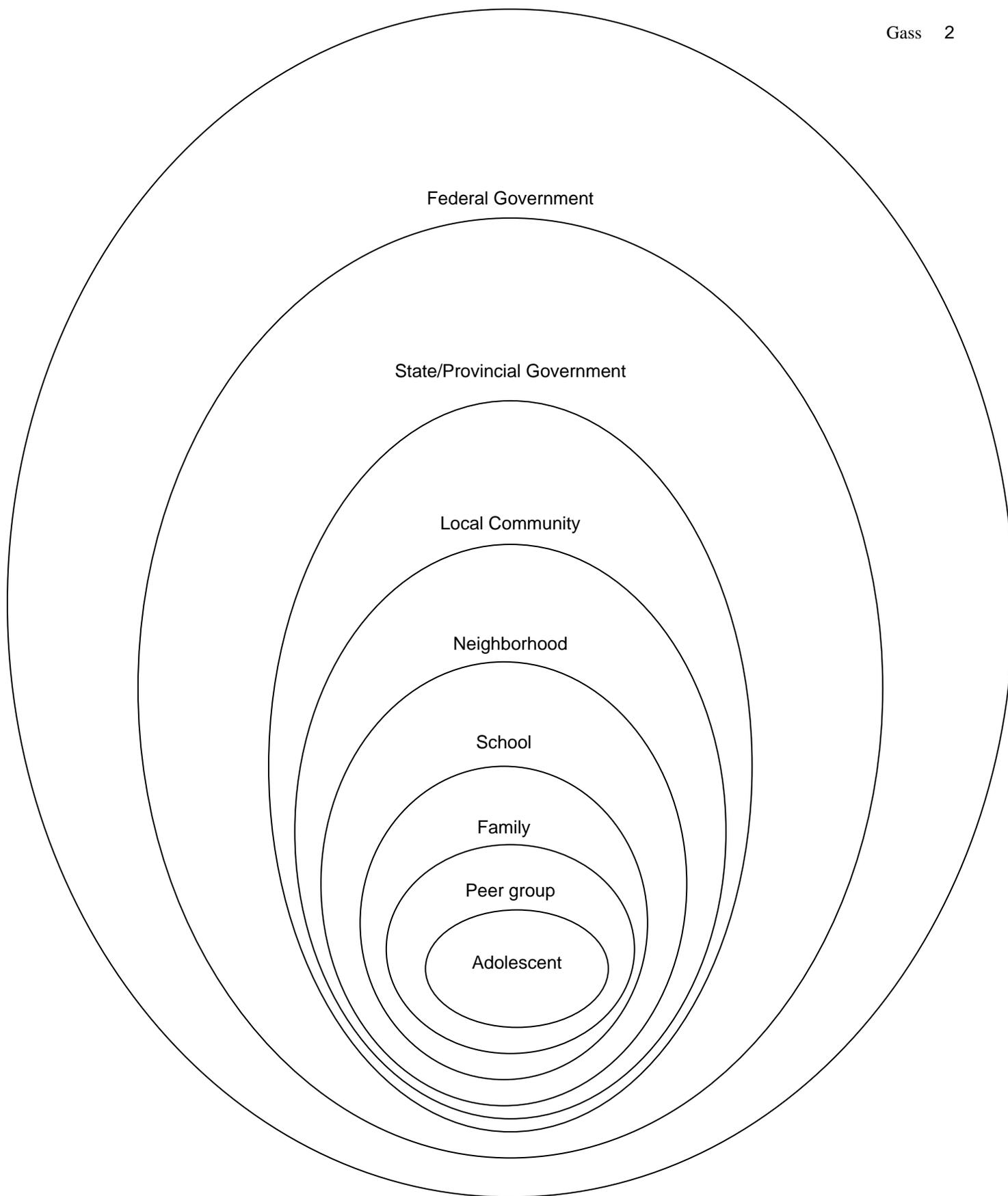
Figure 1 - Potential stakeholders involved in the system surrounding one research study on youth - Each of these constituents make judgments on what our research tells them, whether our research is of value to them, and how they can use elements of our research to improve their lives. Other stakeholders may also be involved and the values of each of these substructures need to be properly aligned for successful research endeavors.

In additional ways, these interrelated structures are like the stained glass lenses of a kaleidoscope. Each has its own pattern and characteristics, but the depth and complementary "colors" of the entire kaleidoscope system changes depending on the orientation and juxtaposition of these layers. What seems most important in achieving a valued "end result" is to orient the various structures in an appropriate alignment that will achieve a high degree of value. Note one stained glass layer rarely achieves the desired results; this typically only occurs when multiple layers or lens complement one another to achieve the intended and greater objective.

As with kaleidoscopes and research agendas, certainly some alignments are valued more that others. Striving to achieve such a structural alignment certainly should be a goal in research systems. Unfortunately, as a field I think we need to be more aware of this and proactively seek to structure and align the layers of our field's kaleidoscope of research to create a more effective path in advancing the field. I don't think we do a good very job of this; and because of this, a lot of times I don't think we are really that relevant to anyone other than ourselves (we become "legends in our own minds"). I believe research in experiential education sometimes holds this role in the organization. Colleagues in AEE present adages of "well isn't that nice that you've found something you're interested in and you like to do it." I fear the underlying subtext in our own professional organization is that research has become one of those many things in AEE people don't need to understand and isn't really that relevant. And in a nice but patronizing way, most AEE members steer away from research since they don't see it as involving them and that it really doesn't make any kind of difference in their lives.

On the contrary, I believe we can make an incredible difference in the field and the lives of clients in experiential education programs, but we are currently failing to do so. Let me provide a personal example of how the misalignment of substructures can have dramatic effects at my own institution. One of the things I have spent some time researching over the last 20 years is the effect of adventure programming with student orientation programs (e.g, see Gass, 1984, 1987, 1990, 1991, 1999; Gass, Garvey, & Sugerman, 2002). A number of elements of my research in this area centered on examining program benefits to clients, peer groups, some members of the profession, and other substructure recipients of the program. When beginning my research agenda in 1980, many of the other surrounding substructures were aligned and congruent with the intended purposes of my research to examine and produce certain intended results. For example, the value system of the funding source (i.e., the Dean of Student Affairs Office) was aligned with the same values and intended outcomes of research as the programmers. These values were a focus on higher academic achievement, retention, and a vision of the purpose of student affairs to promote the personal and social development of undergraduate students.

Due to a number of factors (e.g., turnover in Student Affairs leadership, increases in university admissions and less concern about attrition, less focus on student development and greater focus on appropriate punitive sanctioning methods), the alignment of the value in the funding substructure changed. Funding was cut from this office in the final rounds of 2004-2005 budget negotiations because priorities had shifted. Retention was not as large of an issue as it once was due to high enrollment patterns, and more attention was centered on better methods to identify problematic students (e.g., rioting Red Sox fans, underage drinking) and greater efficiency in removing them from the University. Despite all of these pieces of valid research, the failure of the research agenda to align itself to shifting priorities and changes in the intended focus of the program failed to maintain an "oriented alignment" throughout the entire systemic value structure (e.g., adapt programming, research effectiveness of programming to reduce "antisocial" student behavior).

RESEARCHERS' SUBSTRUCTURE

Funding sources aren't the only substructure with particular values to consider. Note that researchers themselves are nested within their own particular value structures. Examples of five common value structures of researchers that can influence research alignment include:

(1) Conducting research that can show a sustained and programmatic focus rather than research on a series of seemingly unrelated activities. Researchers are rewarded for establishing a professional identity where their work is valued and judged significant by colleagues in their discipline, area, and related areas of study.

(2) Producing research profile where "staging" occurs (i.e., research agendas where researchers develop a regiment where several published articles along with articles in press, articles in review, work in progress, and work they plan to initiate over the next few years). Work is valued when it demonstrates a pattern of continued growth in the discipline and increasing sophistication as a researcher.

(3) Having greater value is placed on researchers who demonstrate sustained and programmatic research. Researchers whose work is conducted successfully (e.g., publications in refereed journals and presentations at professional conferences) over several years is usually judged more favorably than researchers who appear generally inactive or unsuccessful for several years and then demonstrates a spurt of activity.

(4) Sustaining adequate productivity. While no "numeric standard" exists, quantity of publications is certainly valued. Some researchers set a goal of one highly regarded and refereed publication each year. However, each researcher resides within an organization were such a goal may be "incredible" given other duties; in another institution this level of "production" would lead to a termination of employment.

(5) Producing quality products for research. The quality of one's scholarship certainly receives some for of value around relevancy, timeliness, innovation, rigorous conceptualization, and sound procedures. The greater these connected values, the higher regard of researchers and their work.

GOVERNMENT AND EXTERNAL AGENCIES SUBSTRUCTURE

One final example is the existing governmental "stained glass lens" substructure surrounding researchers and the clients they serve. Of great contention right now is the advancement in the fields of education and mental health with certain research paradigms and lists of documented "effective programs." Three operational examples of this government phenomenon at the US Federal level include:

I.   FUNDING SUPPORT

More than ever, certain research paradigms are valued more than others and research paradigms with higher values are actively being promoted by government funding agencies. For example, with the driving force of the Leave No Child Behind Act of 2001 and the Education Sciences Reform Act of 2002, the US Department of Education will spend $3.3 billion this year to support educational rehabilitation, research and development, statistics, and assessment (US Department of Education, http://www.ed.gov/index.jhtml). To aid scholars in the type of research this government agency in interested in funding, the US Department of Education has produced a "user friendly guide" for "identifying and implementing educational practices supported by rigorous evidence." (U.S. Department of Education, cover page). This guide reflects the current position of the largest educational funding source in the US to support

quantitative, randomized, controlled experiments similar to research conducted in medicine and welfare reform.

Evidence of how this value system is currently translated into funding opportunities can be found in several US Department of Education Requests for Applications (RFAs). One current application certainly related to experiential education is the Field-Initiated Evaluations of Education Innovations (CFDA # 84.305, Application Receipt date: December 16, 2004). The purpose of this funding opportunity is to examine and ultimately promote "promising education interventions designed to improve academic outcomes and other student behaviors that have a direct impact on academic outcomes." (U.S. Department of Education, p. 1). In this RFA (not unlike other current funding proposals), randomized control trials are recognized as providing the "strongest evidence of the impact of a particular intervention." (p. 3). Any research protocol not possessing a randomized design must be "high quality quasi-experiential designs" (p. 4). The RFA guidelines even proceed to identify the type of high quality quasi-experiential designs it values (i.e., regression-discontinuity design).

II.   THE "LIST" PHENOMENON -

On the basis of its value systems and research conducted on programs, US government and other agencies are creating "lists" of certain programs that are promising, effective, and model programs in areas such as education and mental health programs. Many of these lists also identify programs not "documented" as valid interventions for achieving intended outcomes. While this "list" phenomenon is growing, three recent but well developed examples of this are:

(1) Children, youth, and family lists <http://www.promisingpractices.net/> - While certainly not the only list for this area, the Promising Practices Network website "highlights programs and practices that credible research indicates are effective in improving outcomes for children, youth, and families. The information pertains to children from the prenatal period to age 18, as well as the families and communities in which they live. This site provides useful information to decisionmakers, practitioners, and program funders who must choose among many possibilities for improving results for children, youth, and families." (http://www.promisingpractices.net/about.asp, p. 1).

(2) Mental Health lists <http://www.modelprograms.samhsa.gov> - The US SAMHSA (Substance Abuse and Mental Health Services Agency) has developed a three tiered system ranking programs of their effectiveness in substance abuse and mental health areas (see Figure 2).
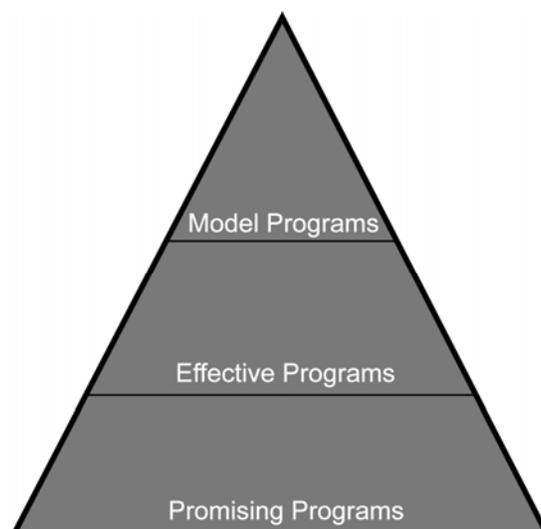
Figure 2 - Promising, Effective, and Model Programs for SAMHSA Programs - The US Substance Abuse and Mental Health Services Agency (SAMSHA) ranks programs as promising, effective, and model programs based on programs' abilities to demonstrate achieved outcomes through scientific research.

The three levels of the system are programs that are:

(a) Promising - "Promising" programs have been implemented and have demonstrated scientifically evidenced positive outcomes with SAMSHA issues. While potentially researchable for validation, promising programs have not yet been shown to have sufficient rigor and/or sustained positive outcomes required of "Effective" programs. Promising programs may be elevated to Effective program status following successful demonstration and documentation of program effectiveness.

(b)   Effective - Effective programs are well-implemented and have been evaluated to the point of producing a consistently positive pattern of results across SAMSHA issues and/or replications. Effective programs typically have been disseminated to more than one program.

(c) Model - Model programs are well-implemented, well-evaluated programs proven to be exceptionally effective according to rigorous standards of research. Programs at this tier have been carefully implemented, maximizing the probability for repeated effectiveness. Model programs are often replicated to provide quality materials, training, and technical assistance to other schools and/or programs across the State. Model programs exemplify the best, most effective SAMSHA practices.

(3) Youth Violence lists
<http://www.surgeongeneral.gov/library/youthviolence/chapter5/sec3.html#PrimaryPrevention>
- regarding both primary, secondary, and tertiary prevention and intervention programs, this website identifies model and promising programs that work in areas associated with youth violence. Published by the US Surgeon General's Office, this website also identifies the cost effectiveness of programs.

Associated with this all of these listing processes is a small but emerging process denying the use of federal monies to be used to train professionals in programs not on the list. For example, if an adventure therapy program for at-risk youth is not on a list of model intervention

programs, program staff may not use federal training dollars to pay for an adventure training program focused on this issue.

III.   MARKETING AND ADVOCACY OF VALUED PROGRAMS
         Government agencies and their representative programs are becoming more active in promoting and informing the public (as well as professions) as to what educational efforts and interventions are "valued" and should receive support and implementation. Conversely, programs not valued are also marketed as "failing" and not to be used. Two web-based examples of this include:
         (A) The US Department of Education's "What Works" page (http://whatworks.ed.gov/) - The What Works Clearinghouse of the US Department of Education was established by the US Department of Education to "provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education." (http://whatworks.ed.gov/whatwedo/overview.html) The site identifies and promotes "valued" programs for certain populations and interventions and creates accessible databases and reports providing educational administrators, teachers, policy makers with information on the effectiveness of educational interventions (programs, products, practices, and policies) that intend to improve student outcomes. Programs are divided into categories of:
         - Studies meeting evidence standards
         - Studies meeting evidence standards with reservations
         - Studies not Meeting Evidence Standards
         - Studies not in the screening process
         - Studies in currently in review

         For example, on the topic of Peer-Assisted Learning (i.e., "educational practices designed to improve academic outcomes by using students to teach one another in pairs or small groups."), the WWC has gathered 300 studies with:
         • 15 studies meeting evidence standards
         • 0 studies meet evidence standards with reservations
         • 0 studies do not meet evidence standards
         • 176 studies do not pass screen
         • 109 studies are currently in review

         Data is currently being collected on several educational programs, three notable areas related to experiential learning being:
         (1) Character Education - the use of character education programming in K-12 schools.
         (2) Delinquent, Disorderly, and Violent Behavior - interventions aimed at preventing or reducing disruptive, illegal, or violent behavior among middle and high school students, and
         (3) Dropout Prevention — interventions in middle school, junior high school, or high school designed to increase high school completion.

         (B) Press releases - In their marketing and advocacy efforts, government agencies are issuing press releases on their findings and what is currently "valued" in particular programming areas. One recent example is a NIH press release issued on October 15, 2004 on violence prevention programs (http://www.nih.gov/news/pr/oct2004/od-15.htm). In this press release, the NIH panel states that "scare tactics" for violence programs are and positive approaches demonstrate greater value. "The panel found that group detention centers, boot camps, and other

'get tough' programs often exacerbate problems by grouping young people with delinquent tendencies, where the more sophisticated instruct the more naïve. Similarly, the practice of transferring juveniles to the adult judicial system can be counterproductive, resulting in greater violence among incarcerated youth." (p. 1)

CONCLUSION

Please don't leave today's presentation with the thought that since I may not have represented the research paradigm or area you're using I am "against" your work or don't think you conduct good research. Nor am I saying to perform research just because a certain methodology is "popular" or funded. However, what I am trying to say is we need to be aware of the various substructures existing within the experiential education research paradigm and how the values associated with each substructure influence one another. We also need to consider "why" certain approaches are favored and promoted by these substructures with more than just a passing cynicism toward prominent traditions.

Two recommendations I have for aligning the various research substructures for the type of vision we would like to achieve with research agendas in the field are:

(1) Promote, advocate, and seek out partnerships between industry providers and researchers - One way to achieve the alignment I'm suggesting is to implement research programs possessing an appropriately structured systemic perspective. By this I mean to align and orient substructures to complement one another, and begin to proactively devise researchable programs with this intention. In such a process, researchers seek out meaningful relationships with industry leaders and devise agendas advancing the goals of service providers as well as the field. In turn, industry leaders ally and support researchers by: (a) being open to adapting programming to create more valid and powerful research processes and (b) finance research efforts over short and long term periods through internal dollars or co-authoring external grants. Both parties must align their efforts to produce more meaningful focuses on the long term benefit of interacting with research agendas of 3-10 years in length or greater to achieve objective acceptance based on traditional standards (e.g., making the "list" of effective and model programs). Organizations such as the American Youth Foundation (AYF), Project Adventure, Inc. (PA), and OBHIC (Outdoor Behavioral Healthcare Industry Council) have recently increased their already well-established commitment to the field by agreeing to strive toward such critical goals. Note such efforts are done for both the benefits to their own programs, and as well as a continuing position of servant leadership to the experiential field.

(2) Appropriately train students and other professionals to produce valued research - In my opinion, we currently are not training emerging professionals with the rigor we need to produce research in the field that makes an critical difference outside of our own field. Whether situated in higher education or outside these institutions, programs involved in the training of future experiential educators need to redouble efforts to support the production of quality researchers who are connected to programming but well prepared to produce scholarship. Th focus of this training should be on advancing the field both internally as well as externally in allied professions such as education, mental health, adolescent work, resource land management issues, etc.

Hopefully these thoughts spur each of us on to the betterment of our work and our efforts to better the lives of our clients as well as one another. My sincere best to all of you in your efforts to find out facts or understand and know through inquiry, as well as your efforts to understand who affected by our research, who evaluates our research, and how our research be used once it is completed.

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Emotional Intelligence and Outdoor Leadership

Aya Hayashi / Indiana University

Emotional intelligence has become increasingly popular as a measure for identifying potentially effective leaders, and as a tool for developing effective leadership skills (Palmer, Walls, Burgess, & Stough, 2001) in the business fields. Emotional intelligence is a multi-factorial array of emotional and social competencies that determine how effectively we relate with ourselves and others and cope with daily demands and pressures comprising five major components: (a) intrapersonal skills, (b) interpersonal skills, (c) stress management, (d) adaptability, and (e) general mood (Bar-On, 2002). Empirical studies conducted mainly in business fields have shown the relationship between emotional intelligence and leadership behavior (Sosik & Megerian, 1999), conflict resolution styles (Malek, 2000), and interpersonal relations (Schutte et al., 2001). As these are important skills for outdoor leadership, it is reasonable to assume that emotional intelligence would benefit effective outdoor leadership.

In this study, outdoor leaders' emotional intelligence and leadership were assessed to answer the following questions. What do the outdoor leaders' emotional intelligence look like? Is it different from that of general population? Could the past outdoor experience lead emotional intelligence? How do outdoor leaders' emotional intelligence relate to transformational leadership and situational leadership? Can the social desirability be a bias to measure emotional intelligence? Answers of these questions would be valuable information for outdoor leadership development and future research in the area.

Forty-eight subjects, who attended at the National Conference on Outdoor Leadership in February 2004, filled out the BarOn Emotional Quotient Inventory: Short (EQi:S) (Bar-On, 2002), the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1997), the Outdoor Leader Experience Use History (Galloway, 2003), the Expedition Leadership Style Analysis Inventory (ELSA) (Phipps, 1996), and the Marlowe-Crone Social Desirability Scale (MCSD) (Crowne & Marlowe, 1960). Forty-six sets of responses were analyzed (28 males and 18 females, ages of 19-58, mean 31.5 years old), after two sets were eliminated due to the inconsistent EQ scores based on the EQ inconsistency index in the EQi:S.

The scores on the EQi:S were compared, by using one-sample *t*-test, with the normative data provided by the measurement company that consists of 3174 adults. Outdoor leaders scored significantly lower in the adaptability subscale than the normative sample (t = -3.029, p = .003). Concerning the social desirability, all outdoor leaders' scores of emotional intelligence were valid according to the positive impression index in the EQi:S, and only the score of stress management subscale in the EQi:S was positively correlated with the MCSD score (r = .367, p = .013) after partialing out the factor of age.

Some significantly positive correlations among the subscales of the EQi:S and outdoor

leaders' past experience were found after partialing out the factors of age and gender; the total EQ and the professional outdoor activity experience (r = .344, p = .022), the intrapersonal skills and the personal outdoor experience (r = .328, p = .030), and the general mood and the personal outdoor environment experience (r = .345, p = .022).

Leadership of outdoor leaders was assessed using the MLQ developed based on the theory of transformational leadership theory and the ELSA developed based on the situational leadership theory. The MLQ measures five transformational leadership factors, three transactional leadership factors, a nontransactional leadership factor, and three leadership outcome factors. The scores on the MLQ were compared, by using one-sample t-test, with the normative data provided by the measurement company that consists of 1545 adults. Outdoor leaders scored significantly higher in two of transformational leadership factors, which were inspirational motivation (t = 2.169, p = .035) and individual consideration (t = 3.942, p = .000), than the normative sample. The total EQ score was significantly positively correlated with two of transformational leadership factors (inspirational motivation, r = .321, p = .034; intellectual stimulation, r = .416, p = .005), and significantly negatively correlated with the nontransactional leadership factor (laissez-faire leadership, r = -.374, p = .012) after partialing out the factors of age and gender. All scores of the EQi:S subscales except the stress management were significantly positively correlated with some of transformational leadership factors. While any dominant expedition leadership styles from the ELSA were not significantly correlated with any scores of the EQi:S subscales, the data explained that outdoor leaders who have higher general mood scores are less relationship-oriented than task-oriented for decision-making (r = -.327, p = .030).

Three major findings were obtained from this study. First, some components of emotional intelligence were related to some types of past outdoor experience, e.g., the total EQ and the professional outdoor activity experience, the intrapersonal skills and the personal outdoor experience, and the general mood and the personal outdoor environment experience. Second, outdoor leaders in this study scored higher in transformational leadership factors than the normative sample. Third, some components of emotional intelligence and transformational leadership factors had unique relationships among them. These results can be useful for training purposes. Further investigation about emotional intelligence, transformational leadership and outdoor experience would be valuable for leadership development and theory enhancing.

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An Investigation of the Role of the Instructor in the Solo Experience

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Background

The findings of many studies in the field of adventure education, and more specifically the area of Wilderness Experience Programs indicate that there is little known about what happens during specific components of these programs or how the components contribute to the overall outcomes of the experience (Ewert & McAvoy, 2000; McKenzie, 2000). Within organized wilderness experience programs, researchers have already shown the solo experience is one of the most influential program components (Daniel, 2003; Griffin, 2000; McAvoy, 2000; McFee, 1993; McKenzie, 2003; Sibthorp, 2000). The solo, within this context, is a time when the students are intentionally separated from their expedition group for 24-72 hours for the purpose of reflecting on their lives, the lessons they have learned while traveling in the wilderness and the quality of their relationships. Studies have found the solo ranks very high in relation to other program components with regard to its potential impact on (a) outdoor leadership development (McAvoy, 2000; Sibthorp, 2000), (b) life significance (Daniel, 2003) and (c) personal learning and growth (Griffin, 2000; McFee, 1993). However, very little research has investigated the solo course component, or other individual components within organized wilderness experience programs (Estes, 1994; Ewert & McAvoy, 2000; McKenzie, 2000). Adventure education literature has determined that the participant(s), the instructor(s) and the environment are all key program characteristics (Kalisch, 1999; McKenzie, 2000; 2003). Previous research has reported the influence of the participant(s) and the environment on the participants' perception of the solo experience (Bobilya, Kalisch & McAvoy, 2004). The purpose of this study was to investigate the participants' perceptions of an organized solo within a wilderness experience program and the influence that instructor(s) have on the participants' perception of the solo. The Hendee-Brown Model (1988) served as a guiding theoretical frame throughout this study.

Methods

This investigation combined qualitative and quantitative methods to explore participants' perceptions of the solo experience. The qualitative features of the study remained as "dominant" and quantitative features as the "less dominant" method (Creswell, 1994) throughout the data collection and analysis. This investigation was part of a larger multi-phase project which looked at the participants' perceptions of the solo experience through a pre- and post-questionnaire, focus group interviews and in-depth interviews conducted three and a half months later. However, this particular study focused on the role of the instructor as reported by the participants during the: (a) post-solo questionnaire (phase 2), (b) post-trip focus group interviews (phase 3), and (c) in-depth interviews (phase 4). Participants included 126 first-year students who chose to enroll in the High Road wilderness orientation program offered through Wheaton College during August 2003 and who agreed to participate in the study. High Road is an 18-day wilderness course offered for freshman and transfer students entering Wheaton College, and it is modeled

after a classic Outward Bound course. The High Road program includes a one to three day solo experience as a component of all its courses.

The post-questionnaire (phase 2) captured participants' perceptions of their solo experience while still alone in the wilderness and prior to returning to their expedition group. On the final day of the solo, instructors asked the students to complete a written questionnaire while still alone in the wilderness. Questions asked of the participants included: (a) How did your instructors describe and explain the solo prior to putting you out by yourself? (b) Would you rather have been visited more or less while on solo and why? (c) Even though you were alone, did you find that your interaction with your instructor(s) played a role in your solo experience and why? Questions asked during the focus group and in-depth interviews included: (a) How would you describe your experience leaving your instructor(s) for that period of time? and (b) If you could suggest one thing that your instructors could have done to better prepare you for, assist you during, or help you process after the solo – what would it be? Phases two and three data collection were completed on August 22, 2003 and the in-depth interviews (phase 4) were finished on December 9, 2003.

Throughout the qualitative data analysis, elements of the Constant Comparative Method (Glasser & Strauss, 1967) and naturalistic inquiry (Lincoln & Guba, 1985) served as a guide, whereby emerging themes were constantly compared with new data being analyzed. "Peer debriefing" and "member checks" (Lincoln & Guba, 1994) were used throughout the data analysis and theme identification process to confirm the findings. The quantitative-based survey data was coded and entered into a statistical analysis program and frequency tables were produced.

<div align="center">Results and Discussion</div>

The results of this study indicate that the instructor does influence the solo through the preparation for, visit during, and discussion after the experience. Furthermore, content analysis revealed the following recommendations for instructors: (a) present a clear rationale to the participants for the solo and any suggested activities (i.e. fasting), (b) provide activities to assist the participant in effectively utilizing the solo time, (c) assure participants that their experience is unique and to set aside any preconceived expectations, (d) provide optional opportunities for students to talk with instructors during the solo, and (e) facilitate a group discussion after the solo that encourages the uniqueness of each individual's experience. These participants have indicated the importance of how they were prepared for and assisted during the solo. These results highlight the need for an increased understanding of the participants' experiences during the solo in similar programs. The participants in this study also indicated the significance of their expectations for the solo experience and the importance of the instructor's attention to their goals and concerns regarding the solo. This study begins to assist researchers, program managers and instructors in understanding the participants' perceptions of the solo. In addition, the results confirm the instructors' influence on the participants' solo experience and provide insight as to how to best prepare participants for and assist them during their solo.

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Hierarchical Linear Modeling of the Effect of Experience on Decision-making in Outdoor Leaders

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This research measures the effect that experience has on the decision-making of outdoor leaders from the perspective of social judgment theory. It investigates the following five research questions: (1) Are there significant differences between experience levels in outdoor leaders; (2) Do subgroups of outdoor leaders (by level of experience) vary in levels of perceptual threshold for particular factors in the decision-making environment; (3) Do subgroups of outdoor leaders vary significantly differently in their judgments. The remaining questions are: (4) Do subgroups of outdoor leaders vary in the extent of stochastic error displayed; and (5) Do subgroups of outdoor leaders vary significantly in the weights that they give to different dimensions in the decision vignettes.

Two instruments were developed for this research: Decision-making was measured utilizing vignettes developed using a factorial survey approach. Experience was assessed using experience use history methodology. The sample for the current study includes staff from North Carolina Outward Bound School and Voyageur Outward Bound School (NCOBS, N = 61; VOBS, N = 42). Data was collected in June 2002. Hierarchical linear modeling identified significant fixed effects for degree of isolation, level of student injury, and group cohesion. Significant random effects were identified for degree of isolation and level of student injury. No significant within- or between-instructor effects were identified in this data.

In order to develop ecological validity for the factorial decision vignettes, a qualitative methodology was utilized in determining the factors, dimensions, and levels relevant to the decision-making process for outdoor leaders. A semi-structured interview format was developed and interviews were conducted with Voyageur Outward Bound School (VOBS) field staff members (N = 20) in late June 2001. The sample constituted a range of experience within this organization, as well as across the outdoor leadership field as a whole (intern, assistant instructor, instructor, etc.). Recorded interviews were transcribed and the text was coded for factors affecting decision-making in field situations utilizing a selective coding process (Strauss & Corbin, 1998).

Internal consistency reliability for the OLEUH was estimated by computing Cronbach's Alpha for the eight subscales, resulting in an overall reliability coefficient of .78. This finding indicates some improvement in instrument reliability over the results from the analysis conducted during the instrument development phase, which indicated a Chronbach's Alpha of .71. In both cases, this coefficient meets the accepted standard for reliability coefficients of .70 (Nunnally, 1978). In order to estimate construct validity, a factor analysis was conducted. Principal components analysis using Varimax rotation resulted in a two-factor model that explained 55.43 percent of the variance in this data set. Variance explained during instrument development equaled 44.62, indicating some improvement in the current data set over previous data.

Subjects were asked to complete an OLEUH and a set of 20 Decision Vignettes that were randomly selected from the factorial object universe. Given the complexity of the instruments involved, data collection took place during staff training (June 4-5, 2003). The majority of the staff for each base is only on-site during particular periods of time, and all-staff training provided the highest concentration of instructors for data collection. An on-site data collection approach

was selected in order to gather most of the data at one time and to provide clarification on instrument questions, if needed. Due to the fact that both VOBS' and NCOBS' All-Staff Trainings occur on the same days, a research assistant was recruited and trained to collect data at VOBS, while the principle researcher executed the NCOBS data collection. Subjects for this examination consisted of field instructor staff from Voyageur Outward Bound School (Field staff N = 80) and North Carolina Outward Bound School (Field staff N = 90). These organizations were selected due to the broad range of experience (e.g., intern, assistant instructor, instructor, course director) and professional development of outdoor leaders within each organization, as well as the fact that instrumentation developed for this study was refined using data from these individuals.

The instructors varied significantly in terms of their experience levels. Significant variance was also present in both the judgment threshold and judgment processes of the outdoor leaders for the environmental factors of the degree of isolation and the level of the student's injury. The instructors also displayed significant variance in their judgments according to their level of experience for the decision environment factors of degree of isolation and level of student injury. The complicated nature of the error structure generated in hierarchical linear models renders the response to the question of stochastic error and outdoor instructor experience more difficult to answer.

Analysis of the fixed effects leads to several conclusions. The interaction of isolation, injury, and experience on decisions to evacuate indicates a higher level of efficiency for outdoor instructor with the highest levels of experience in response to the higher degree of risk. It is reasonable to conclude that, in terms of degree of isolation and level of injury, more experienced instructors display a higher degree of risk aversion. The relationship between the degree of isolation and experience indicates that the novice group becomes less likely to evacuate as the degree of isolation increases. The interaction of level of student injury and level of experience in outdoor leaders also varies across the range of experience. The interaction of group cohesion and level of experience indicates different levels of the ability to utilize the group in problem solving.

Implications of the study include indications for training and development of outdoor leaders. Medical training may be augmented with isolated settings and/or social components to better simulate naturalistic decision-making environments. The decision-making of less experienced outdoor leaders may benefit from additional training on coping in isolated environments, as well as methods for using the group to help problem-solve.

Information gained from this study allows for an empirical understanding of critical factors in the decision-making process of outdoor leaders. Understanding the weights that outdoor instructors of different experience levels place on factors in their decision-making, as well as variance in assignment of those weights and stochastic error rates, provides an empirical foundation for the training and professional development of outdoor leader decision-making at the staff and individual levels. Furthermore, access to such information reveals important risk management practices or provides justification for existing practices. For example, training program curricula designed specifically for novice decision makers could integrate information and practice with problems adapted to empirically observed novice decision policies. Development of an empirical understanding of the decision-making of outdoor leaders allows for the development of this occupation as a profession, enhancing both critical abilities of outdoor leaders and the credibility of the field as a whole.

The differences in meaningful involvement opportunities provided by ropes course programs

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Ropes course programs may provide numerous benefits but few studies have supplied principle-based information that distinguishes effective programs from ineffective ones (Doherty, 1995). Comparing different treatments – either different types of programs or similar programs with systematically varied attributes (Hamilton, 1980) enables researchers to connect program design and delivery with the mediating variables that ultimately contribute to program outcomes (Rogers, 2000). This approach provides a complete chain of information for improving program effectiveness.

The purpose of the study was to: 1) compare Challenge by Choice (CbC) and Inviting Optimum Participation (I-OPt) ropes course programs in their provision of meaningful involvement opportunities and 2) identify and compare the linkages among program attributes, outcomes, and values under each programming approach.

Challenge by Choice programs sequenced activities to create an atmosphere of support, trust, and encouragement for taking risks. Participants agreed to value group members, allow individuals to step back and try again later, focus on effort rather than performance, and respect people's choices and ideas (Schoel, Prouty& Radcliffe, 1988).

Inviting Optimum Participation programs provided all participants with multiple options and levels of challenge within a single, inclusive activity design. Instructors ensured all group members could contribute to each activity's central task by deliberately balancing participant characteristics with the challenge environment (Haras, 2003).

Meaningful involvement is a mediating variable that describes active participation in a voluntarily chosen activity where an individual's deliberate conduct leads to demonstrable effects, influences important decisions, and leads to the achievement of desired outcomes (Checkoway, 1998). Rohnke, Wall, Tait, and Rogers (2002) suggest participants are meaningfully involved in ropes course programs when their role in an activity enables them to contribute towards the group's goals.

Study participants were 360 young adolescents (ages 10 -15) who took part in a full-day ropes course program provided by one of four organizations in Ontario, Canada. Average age was 12.7 years and 47% had ropes course experience. Organizations provided either CbC or I-OPt programs based on experience with a particular approach.

Experience sampling and means-end analysis provided a multidimensional approach. So the study would not interfere with the ropes course experience, participants completed either: 1) experience sampling forms (ESFs) related meaningful involvement or 2) a means-end laddering survey related to program attributes, outcomes, and values.

Immediately after four pre-selected activities, 151 participants completed ESFs. Multivariate analysis of variance (MANOVA) was used to determine if CbC participants differed from I-OPt participants. The dependent variables were meaningful involvement during high (belayed) and low (non-belayed) activities. Meaningful involvement consisted of three areas: engagement, choice, and view of self. The independent variables were program type, sex, and ropes course experience. Program type had a significant effect ($\lambda(3,158) = 0.937$, $p< 0.05$) on the degree of meaningful involvement experienced

during high activities. Follow-up ANOVAs indicated that choice ($F(1, 160) = 6.127, p< 0.05$) was significantly higher in I-OPt programs (ES 0.26). Differences between the programs in engagement (ES 0.06) and view of self (ES 0.22) were not significant for high activities at $p=0.05$. There was no significant effect for low activities.

At the end of their program, 209 participants completed a means-end survey asking them to identify linkages among program attributes, outcomes, and values. Participants' responses were coded, entered into the LadderMap software program, and organized into Hierarchical Value Maps (HVMs). Overall, I-OPt program participants identified different concepts and linkages than CbC program participants. I-OPt participants were more likely to mention attributes relating to low activities, e.g. "low ropes," "trust exercises," and "communication activities." I-OPt participants also reported the outcome "group efficacy" as significant, and were less likely to mention the outcome "anxiety." CbC participants were less likely to mention attributes related to low activities and the outcome "group efficacy," and more likely to mention the outcome "anxiety."

This study found that participant experiences of meaningful involvement are effected by program design and delivery attributes. To create ropes course programs that increase opportunities for meaningful involvement, practitioners should:

- Ensure that all options include challenge, uncertainty, risk, novelty, and fun
- Provide a minimum of two different action opportunities for all aspects of high activities (i.e. access, order, degree of completion, additional challenge options)
- Offer at least two different action opportunities associated with the central task during all low activities
- Allow participants to self-select roles that contribute to the activity's central task and are congruent with their skills and abilities
- Create activities with an increased number and variety of challenge options that offer simultaneous opportunities for purposeful engagement.

To further inform program design and delivery, future studies should explore how meaningful involvement effects specific outcomes such as self-efficacy and group cohesion.

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Transferring Benefits of Participation in an Integrated Wilderness Adventure Program to Daily Life.

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Background & Need for the Study: Recent studies have called for research that investigates program outcomes and how those outcomes can be linked with program components (Hattie, Marsh, Neill & Richards, 1997; Ewert & McAvoy, 2000). This same need also exists within integrated wilderness adventure programs. Why are outcomes important to individuals, how are these outcomes connected to program attributes, and how can these outcomes be transferred into the everyday life of participants (Anderson, Schleien, McAvoy, Lais, & Seligman, 1997). The present study specifically examined the linkages between the means (the services) and the ends (the consequences and values important to the individual) using the means-end theory to examine participants' experiences. The theoretical frame for this study is the means/ends approach developed in the marketing/advertising field (Reynolds & Gutman,1988), recently applied to the leisure research area (Klenosky, Gengler & Mulvey, 1993), and to adventure education (Goldenberg, Klenosky, O'Leary & Templin, 2000; Haras, 2003). Means-end theory holds that people select certain products or services based on the anticipated outcomes (consequences) of interacting with that product/service. Participants associate values with these outcomes as well as certain attributes of those products and services. Means-End Analysis (Gutman, 1982) was used to analyze the attributes, consequences (outcomes) and values from participants. Content codes were formed and then linked together in a hierarchical value map to show the associations between them using a computer program called Ladder Map (Gengler & Reynolds, 1995). The findings from this study build on previous research using means-end theory to better understand the integrated wilderness adventure experience (Holman, T., Goldenberg, M., McAvoy, L., & Rynders, J., 2003).

This study was conducted to develop a better understanding of the integrated wilderness adventure experience. The purpose was to examine the relationships of participant outcomes and benefits as well as the specific components of the wilderness program that contributed to participant outcomes. This research also examined differences in outcomes and values of different participant groups, such as persons with disabilities as compared to persons without disabilities. Another specific purpose for this study was to gain insight into how integrated wilderness program participants are able to transfer the outcomes and benefits gained into their daily lives.

Methods: This study combined questionnaire data (n=193) as well as telephone interview data. At the completion of each wilderness trip a self-administered questionnaire was given to participants to collect data on the outcomes and values they received. Participants were asked to indicate what outcomes (consequences) they got out of their trip experience. They were then asked to indicate for each outcome why that outcome was important to them. This response was the value associated with that outcome. Participants were further asked to indicate which part of the trip contributed most to that outcome. This response was the attribute of the program that led them to each outcome.

Telephone interviews were conducted with 29 participants who indicated on their questionnaire that would be willing to be contacted by phone to further discuss their wilderness trip experience. Interview participants were selected using a stratified random sample which consisted of equal numbers of participants with and without disabilities. The phone interview consisted of questions related to how participants were able to transfer outcomes received from their trip into their daily lives. The interviews were tape recorded and transcribed. The analysis of the interview data was done using an adaptation of the Constant Comparative Method (Glasser & Strauss, 1967) and Naturalistic Inquiry (Lincoln & Guba, 1985). This consisted of reading through all narrative responses to develop themes. The data were then unitized into pieces of information (units) to better understand the topic. Units were then categorized into organizational themes that were related to the same content. These themes were then illustrated by statements made by participants.

Results & Discussion: The results of this study have significant findings that provide a better understanding into the integrated wilderness adventure experience and how participants transfer outcomes and benefits from their trip experience. There were ten hierarchical value maps generated for this study based on the participants responses to the questionnaire. These were analyzed and conclusions made regarding what outcomes and values are associated with participating in an integrated wilderness adventure program as well as the relationship these outcomes have to program components. Differences were found in outcomes and values of various groups analyzed. The telephone interviews further revealed how participants were able to transfer benefits into their daily lives.

The 193 participants from the questionnaire data indicated the following primary outcomes: developing relationships with others, increased understanding of themselves, awareness and appreciation for nature and the wilderness, having a new opportunity, and learning new skills. The primary values the outcomes contribute to person's lives were: transferring the benefits of the trip to enhance aspects of home life, self awareness, achieving a personal goal, and having a warm relationship with others. The 74 participants with disabilities indicated similar outcomes and values, except one, the outcome unique to their responses was "succeeding at a personal challenge."

Results of the 29 interviews show that participants were able to transfer outcomes from their wilderness trip experience to their work (41%), to developing and improving outdoor recreation skills (24%), to their family lives (24%), and to other activities (13%). Participants also indicated having positive reflections/memories of the trip as well as increased coping/transitioning skills. Many participants (51%) noted higher levels of motivation and increased self-confidence in their abilities, which they directly attributed to the wilderness trip experience. Participants expressed having a better understanding of people with disabilities/differences (44%) and being more respectful and trusting of others (51%), as a result of having participated in the inclusive wilderness adventure experience. The most important trip attributes that contributed to outcomes were interactions with other group members, being in wilderness, the overall trip, and program leaders. This research design can enhance future studies investigating similar programs and practitioners in the field of wilderness adventure education can apply the findings to assist in developing quality integrated outdoor adventure programs.

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The Influence of Environmental Education on Environmentally Responsible Behaviors of Undergraduate Students in a Traditional and Non-Traditional Setting

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Research comparing traditional versus non-traditional classroom instruction has yet to bring forth any compelling results to assist in delineating which methodology is more effective in producing environmentally responsible behaviors. While previous studies have focused on students' acquisition of positive environmental attitudes, there continues to be a compelling need to turn attitudes into actions in order to promote environmental preservation. The purpose of this study was to measure the influence of two different types of environmental education classes on the development of environmentally responsible behaviors of undergraduate students. The research questions addressed were: (a) whether or not students' experiences in university classes with environmental education components had an effect on their development of environmentally responsible behaviors, (b) compare the effectiveness of a traditional setting class (where environmental education occurred primarily within the classroom context) to a non-traditional class setting (where environmental education included an overnight camping trip using Leave No Trace principles).

The study sample consisted of three upper-division undergraduate courses at East Carolina University: (a) Environmental Science Education (traditional environmental education classroom and short field trip), (b) Outdoor Programming (leave no-trace camping skills and extended field trip), and (c) Measurement of Physical Activity and Fitness (control group). The Environmental Action Perceived Control Inventory (EAPCI) was selected to measure environmentally responsible behaviors for its ability to correlate locus of control of reinforcement and environmental action in order to most accurately predict an individual's capacity to act in an environmentally responsible manner following an environmental education program (Smith-Sebasto, 1992, 1995). Descriptive statistical analyses and analysis of variance were used to assess all hypotheses by testing for differences between the three classes on EAPCI and all subscales. Alpha was set at .05 and post hoc multiple comparisons were made using Duncan's analysis.

Results showed no significant results on the overall EAPCI scores among groups. With regard to the subscales, there was one significant difference in the legal action subscale, with the Environmental Science Education class increasing more than the control group (F ratio = 3.28, significance level .046). While there were no other statistically significant differences between groups, descriptive statistics showed consistent patterns of improvement on post-test EAPCI scores for both experimental groups. Patterns indicated the highest level of increase for the traditional setting class (Environmental Science Education), while the non-traditional setting class (Outdoor Programming) showed a moderate increase, and the control group showed little or no increase. One exception to this pattern was that all classes decreased slightly on the physical action subscale. In an effort to gain further insight, post hoc analyses included correlation of pre-test and post-test scores and correlation of pre-test scores with change scores between pre- and post-test scores. Results indicated that all students, regardless of overall EAPCI pre-test scores

demonstrated some increase. Lower pre-test scores produced lower post-test scores and higher pre-test scores produced higher post-test scores. However, those in the Environmental Science Education and Outdoor Programming classes with lower pre-test scores did exhibit a higher level of overall change in EAPCI scores.

Consistent with previous studies, the findings of the present study did not find that one teaching method was significantly better for increasing overall environmentally responsible behaviors in college students. However, patterns indicated that the traditional classroom setting showed the highest increase, the non-traditional classroom showed a moderate increase, and the control group showed little or no increase in environmentally responsible behaviors. The one significant difference was that the traditional classroom setting was more effective at teaching students how to use legal action as an environmental action strategy. The EAPCI did demonstrate good potential for measuring students' intention to act in an environmentally responsible manner. Recommendations for future research include: (a) use a similar study design with larger sample sizes to further examine which methods are most effective for teaching environmentally responsible behaviors; (b) determine the extent to which university student-participants are predisposed to environmental education (i.e. what kind of prior experiences have influenced them prior to a study); (c) study the development of environmentally responsible behaviors using longitudinal studies in settings where these behaviors can be reinforced over time as opposed to short-term experiences; and, (d) ensure that the environmental education classes studied establish solid theory, curriculum design, and implementation of methods thought to be conducive to teaching students environmentally responsible behaviors.

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The Relationship Between Summer Camp Employment and Emotional Intelligence

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Background: The purpose of this study was to identify how the summer camp experience impacts staff members and to better understand if emotional intelligence is developed through summer camp employment. Emotional intelligence refers to a "type of social intelligence that involves the ability to monitor one's own and others' emotions, to discriminate among them, and to use the information to guide one's thinking and actions" (Mayer and Salovey, 1993, p.433). Developing a better understanding of the interface between summer camp employment and emotional intelligence (EQ) and of the potential long-term benefits associated with the organized camp staff experience could lead to a broader acknowledgment of the positive impact of organized camping on society. An understanding of the changes that take place throughout a summer camp experience can prove extremely beneficial in the recruitment of staff members. This knowledge provides camp administrators with the ability to present a summer camp staff experience to potential staff members, and influential others such as parents, peers, and college advisors, as an investment in the future.

Methods: This study utilized an empirical, quantitative approach to help validate and justify the summer camp employment experience. The BarOn Emotional Quotient Inventory, EQ-i, was selected as the primary instrument to collect quantitative data to measure and assess emotional intelligence for this study. It is the oldest and most well-know instrument available to assess emotional intelligence (Gowing, 2001). As a part of the EQ-i development, numerous statistical analyses were conducted to obtain information on its reliability and validity.

The Minneapolis and St. Paul, MN YMCA summer camps were invited to participate in this study. A total of 80 different summer camp staff members provided responses that were used to analyze the influence of summer camp employment on emotional intelligence. All eligible participants were asked to complete a pre-test EQ-i on either the 2nd or 3rd day of their summer season, and a post test when the camp had completed 90% – 100% of the season. An Analysis of Variance (ANOVA) was utilized in this study to detect significant differences.

Results and Discussion: The pre test total EQ average for the respondents was 95.6 and the post test average was 100.7, with a p value of .001. The respondents also generated both pre test and post test scores for each of the five composite scales, with significant differences resulting along four of the five composite scales, including interpersonal, stress management, general mood, and intrapersonal. Pre test and post test scores were generated for each of the 15 subscales, where 8 of these subscales showed significant changes from the pre test to the post test, including stress tolerance, self-actualization, social responsibility, optimism, assertiveness, empathy, happiness, and interpersonal relationships.

The EQ-i data revealed significant increases in emotional intelligence for summer camp staff members through examination of pre and post test scores. This new understanding, of how the camp experience impacts staff members' emotional intelligence, is valuable for camp directors and leaders in the camping industry for several reasons. The results of this study will assist camp administers and the camping industry in attracting and recruiting summer camp staff members, dismissing some of the negative perceptions of working at a summer camp, competing

in a competitive employment market place, and describing a summer camp staff experience as an investment in the future. This study sheds new light on the accuracy of the American Camping Association's slogan, "Enriching Lives, Changing The World" (ACA, 2001).

Implications: Previous studies have established that particular emotional intelligence competencies can be critical for various employment arenas. Gowing (2001) found that the competencies most often possessed by successful CEOs included empathy, stress tolerance, flexibility, and problem solving. A national survey of employers found that six of the top seven traits that employers desired entry level applicants to possess were emotional intelligence competencies (Evers, Rush, and Bedrow, 1998). The three most desired capabilities and competencies corporations are seeking in the MBAs they hire are communication skills, interpersonal skills, and assertiveness (Gibbs, 2000).

The emotional intelligence competencies that demonstrated significant increases for the participants in this study, stress tolerance, self-actualization, social responsibility, optimism, assertiveness, empathy, happiness, and interpersonal relationships, include many of the same competencies that human resource training programs and skill building workshops attempt to enhance and increase. The competencies that are sought after by national employers and the competencies that have been shown to be keys to success for CEOs and MBAs were developed and enhanced for the participants of this study through their summer camp employment experience. The application of emotional intelligence as a dependent variable within the outdoor recreation and experiential education employment arenas provides a new platform for describing summer camp employment as an investment in developing key work place competencies. This study demonstrated the ability of an experience, the summer camp employment experience, to enhance and develop competencies and to serve as an investment in the future.

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The Legacy of Lloyd Burgess Sharp (1895-1963):
A Career History of a Pioneer in Outdoor Education

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While a doctoral student at Columbia University in New York in the 1920s, Lloyd Burgess Sharp integrated the pragmatic and experiential philosophies of John Dewey and other "New Educators" into the youth camping programs with which he was involved (Hammerman, Hammerman, & Hammerman, 1994; Rillo, 1980). This intersection of New Education with outdoor learning situations resulted in a slow, but continual, formation of an approach to learning that came to be known as "outdoor education," a term coined by Sharp in the mid-1940's (Knapp, 2000).

The purpose of this study was to construct a career history of Sharp and to identify his leadership influence in shaping the outdoor education movement in the United States. The main research questions were, 1) What pivotal events and actions characterized L. B. Sharp's role in the formation and growth of the outdoor education movement in the United States? and, 2) In what ways did Sharp's approach to leadership influence the perpetuation of outdoor education through others?

Narrative data were collected from people who were associates of Sharp during his career and triangulated with archival data. The data were then melded and organized into a chronological career history. Sharp began his career with the restructuring of Life Magazine's Fresh Air Camps into programs that provided positive outdoor educational experiences for inner-city youth. He also established the Outdoor Education Association and National Camp as avenues for outdoor leadership preparation and facility design consultation. He served as a faculty member at New York University, Columbia University, the Lab School at the University of Chicago, and Southern Illinois University.

Narrative data from the study were further analyzed for emergent patterns in reference to Sharp's approach to leadership that influenced the perpetuation of outdoor education through others. Multitudes of people who were National Camp participants and associates went on to become influential leaders in various arenas of experiential and outdoor education in their own right. Patterns that emerged relative to Sharp's leadership influence were: articulation and widespread dissemination of a sound philosophy and vision, living a principled life, exhibiting highly developed interpersonal skills, and facilitating meaningful experiences and traditions.

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The Influence of Sense of Community on the Retention of Seasonal Employees
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Anyone who has ever been in a leadership position at a summer camp understands that a high year-to-year retention rate of summer camp staff is an important part of a camp's success. Indeed a 1995 American Camping Association (ACA) survey found that nearly 50% of camp directors identified recruiting and retention as their greatest concern (DeGraaf, 1996). Some larger camps have as many as 200 positions to fill, and trying to convince so many people to work incredibly long hours, with very few days off, for pennies an hour is a difficult challenge. Of course no camp has to start from scratch each year. Most summer camps begin to fill their open spots in the fall with staff who worked for the camp the previous summer. Generally speaking, camps able to convince more qualified staff to return for another summer, can dedicate more resources (time and money) to camp programs. Moreover, experienced staff members are often easier to train and manage than new staff, and there is evidence that campers respond better to returning staff members (Magnuson, 1992).

Very few studies have been conducted to measure issues related to the year-to-year retention of seasonal employees, and despite the fact that over 1 million adults are employed by summer camps each year (Coutellier, 2002), even fewer have examined this issue specifically for summer camps. Most of the research that has been done on summer camp staff retention has viewed the issue from the perspective of job satisfaction (Becker, 1983; Hoff, Ellis & Crossley, 1988; Magnuson, 1992; DeGraaf, 1992). These studies have generally suggested a link between job satisfaction and the willingness of employees to return to a camp. However, they also suggest that the strongest contributing factors to job satisfaction are elements that have more to do with camp community than the attributes of the job itself.

Magnuson (1992) makes special note of the importance of friendships between staff members at camp. After completing interviews with 19 returning camp staff members, she reported that the top two reasons given for returning to camp were "to see other staff" and "because of the community atmosphere at camp." Bialeschki et al.'s (1998) study of staff perceptions about the value of summer camp employment reported that the top positive outcome focused on relationships with other staff and campers. Other studies by Henderson (1980) and Ott (1956) also found that being with other staff members was an important reason to work at camp. This data seems to support the need for a study of the camp community as a potential influencing factor on staff return decisions, however, no such study has been undertaken to date.

The purpose of this study is to examine the extent to which a camp staff member's psychological sense of community toward a camp influences his or her decision to return to that camp. Psychological sense of community refers to a "feeling that members have a belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together." (McMillan & Chavis, 1986)

46 ACA accredited residential summer camps were recruited to participate in this study. The camps are located in 26 different states, and represent several different organizational affiliations (YMCA, Girl Scouts, private for-profit, etc) and sizes. Each camp provided email addresses for their seasonal staff members from the previous summer. These staff members were then contacted via email and invited to fill out an internet-based survey. 1,875 staff members were contacted and 952 (51%) completed the survey. In addition to demographic data and information about camp experience, the survey also used McMillan and Chavis' (1986) Sense of Community Index (SCI) to generate a sense of community score for each participant. Open-ended questions also produced a significant amount of qualitative data.

A Ulysses Connection: Examining Experiences in the Ross Sea region, Antarctica

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Antarctica's ability to provide personal growth should perhaps not be overly surprising. Alfred Lord Tennyson's *Ulysses* ends with the words, "to strive, to seek, to find and not to yield", words which now adorn the memorial cross on Observation Hill, Ross Island as a tribute to a lost hero, Robert Falcon Scott. Scott is known for these characteristics, and from them has grown the myth and awe we still have for the continent. These words also, in adaptation, represent the Outward Bound motto, "to serve, to strive and not to yield". Outward Bound having provided challenges to youth for decades, encouraging growth, and having been co-founded by one of the revered figures of experiential education, Kurt Hahn. In quoting Mike Stroud at the 2003 SEER, Pete Allison suggested the poles are unusual places, away from normal existence, and offering powerful perspective (Allison, 2004).

What is the impact of the 'ice' on visitors? How do they envision and/or process their 'hands-on' experience? These are the types of questions the research outlined in this abstract has sought to explore and understand. Applicable to the field of experiential education is the focus on where these visitors begin their voyage? How does the operator affect the on-site behaviour? In terms of education, has their experience promoted a greater awareness or a taught a sense of advocacy? In examining the concept and context of experience in a trying environment such as Antarctica, the geographic scope of the research was narrowed down to the Ross Sea region (RSR); New Zealand's Ross Dependency and the area explored by the likes of Scott and Amundsen. An environment potentially as different from most people's everyday life as is possible.

Experience, while difficult to fully define, included a 6-8 month longitudinal period looking at visitors well in advance of their visit, through their time on-site, and as a follow-up back at their homes. The examination of experience in this manner, one which encompasses many phases, is derived from work across disciplines (see Clawson & Knetsch, 1966; Arnould & Price, 1993; Borrie & Roggenbuck, 2001). As outlined by Henderson (2004), experiential education must borrow from other disciplines, while researchers must present data through evidence-based approaches, examining both cause and effect. Cause and effect, or rather examining the experience before, after, and during is what this research presents as a contribution to experiential education research culture as a whole. Galloway (2004, p. 201) echoes Henderson's statements in that, "experiential education cannot be explained in terms of outcomes without understanding the inputs of the experience, not to mention the experience itself. This complexity brings about… increasing interplay of theory and evidence".

Methodologically this research examined particular phases of the experience: 1) anticipation of the visit, 2) on-site during the visit (inclusive of all travel from gateway cities to the continent), and 3) upon return home after the visit. This research examined a cycle of experience, comparing groups of visitors through this cycle, and analysing for change or transition as a result. In hopes of providing a comprehensive outlook on experience a mixed-methods approach was undertaken using a variety of qualitative and quantitative measures. This approach, to triangulate methods and draw from different fields, has been suggested in many arenas, but specific experiential education as a whole, is echoed by Galloway (2004), and Galloway and Goldenberg (2004).

The visitor in this research was defined as those who come into direct contact with the 'ice', but are not science or logistics personnel. This included commercial tourists, as well as

media, artists and writers, distinguished government and industry leaders, and those visiting through educational programmes. Four organisations (2 ship-based tour operators, one national Antarctic Programme, and one educational provider) voluntarily participated to varying degrees in a number of data gathering methods during the 2002/2003 season. Methods included: self-administered surveys sent to the respondents home (up to 3 months in advance of the trip); writing personal narratives or journals while on the trip (regardless of trip length: 4 to 28 days); interviews held directly before and/or after the trip when possible; and email - surveys post-visit (2-3 months after). In the 2003/2004 season supplemental data was also collected from one operator, which included a familiarisation trip to Scott Base and subsequent participant observation, and informal interviews held there.

Findings indicate features of the experience seems to be highly weighted towards personal growth, a reflection on home, and a "Gee, if I can get to Antarctica, then I can do anything" mentality. Although in complete awe of Antarctica's landscape and wildlife, visitor advocacy appears to be focus on letting Antarctica 'be', and not necessarily being closed off for conservation. An appreciation and reflection on the past (exploration) and the present (science) also seems to evolve.

There is an extraordinary experience for visitors to the RSR, one with multiple phases and transitions. Aspects of the experience appear to have created an ebb and flow over the course of the eight month study. Comprehensive results will be provided in the presentation from both a cause-effect perspective and from the personal narratives shared by the respondents. Implications from this research bear on the multi-phasic manner in which we examine experience, and further a field to the use of education to produce a focused experience important to the evolution of management and regulation in the region

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Preliminary results of a study examining the effects of outdoor behavioral healthcare treatment on levels of depression and substance use frequency

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This study will report preliminary findings of a longitudinal study of eight outdoor behavioral healthcare (OBH) programs that utilize wilderness therapy. Recent outcome assessments have shown that OBH treatment, can be effective in reducing the behavioral and emotional symptoms of adolescent clients (Russell, 2003; Russell & Phillips-Miller, 2002). Many youths who enter OBH treatment are reasoned to be struggling with various levels of substance use issues and may exhibit symptoms associated with depressive disorders which are reasoned to co-occur (Greenbaum, Prange, Friedman, & Silver, 1991). Though several studies appear in the literature on outcomes associated with OBH programs (Hattie, Marsh, Neill, & Richards, 1997), few studies have specifically addressed the degree to which the treatment approach is effective in reducing symptoms associated with substance use and depression disorders.

This study is also examining the motivation levels of youths who enter treatment and the quality of the working alliance between the youths in each working group and the treatment team. It has been suggested that youths exhibit less internal motivation to enter substance-related treatment because they have experienced fewer of the negative consequences of their drug and alcohol use (De Leon, Melnick, & Kressel, 1997; Melnick, De Leon, Hawke, Jainchill, & Kressel, 1997). Because of this, youths are often coerced into entering residential treatment by external influences (Hubbard, Collins, Valley Rachal, & Cavanaugh, 1988; Pompi, 1994; Pompi & Resnick, 1987). Research has shown that coercion into treatment and low motivation to change provides a significant barrier to change (Prochaska & DiClemente, 1992). Because of these dynamics, this study also proposes assessing the degree of motivation that youths entering treatment have, and determining the degree to which motivation may have changed throughout the course of treatment. Finally, the working alliance between youths and their peer group and the treatment team has been shown to be a significant predictor of outcomes in treatment (Blanz & Schmidt, 2000). Because this alliance is reasoned to be naturally strengthened in OBH treatment (Gass, 1993), the working alliance between the treatment team and the youth and group will be assessed to examine its' relationship to outcome.

A time series research design is proposed with four specific objectives: a) evaluate treatment effects on substance use frequency using the Personal Experience Inventory (PEI) (Winters & Henley, 1989), b) evaluate treatment effects on levels of depression using the Depression and Anxiety Stress Scale (Lovibond & Lovibond, 2002), c) assess adolescent motivation and willingness to change using the stages of change model (URICA) (Prochaska & DiClemente, 1992), and d) assess the role of the working alliance in treatment using the Group Therapy Alliance Scale (Marziali, Munroe-Blum, & McCleary, 1997). Results will be presented from initial data analysis addressing each of these objectives from data collected at admission and discharge. Six-month follow-up assessments will be completed in the Spring of 2005. Discussion will center on the appropriateness of the data for further analysis using structural equation modeling techniques to test the relationship of treatment outcomes, motivation to change levels, and the working alliance.

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Adventure as Cultural Borderwork

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Introduction

Although fine-grained analyses of adventure education programs have recently become available by isolating specific features of the experience (e.g., McKenzie, 2003) and using more refined statistical techniques (e.g., Sibthorp, 2003) social processes and cultural contexts remain largely unaddressed at the level of theory (e.g., Kolb, 1984). Recent studies of social process in adventure education have shown how institutional scripts affect emotions in adventure activities (Holyfield, 1997), how leaders hold power (Brown, 2002; Jonas, 1999) and how leaders' tacit theories serve as guides to their practice (Hovelynck, 2001). With this study, I aim to further illuminate how adventure is constructed during a facilitated, small group experience.

Locus of the study. Project Adventure, Inc. (PA) was established in 1971 to "bring the adventure home" to school children who otherwise would not have the opportunity to experience outdoor adventure pursuits (Prouty, 1991). This study is specifically focused on the "catalog workshop," in which professionals enroll to learn basic adventure practices. Workshops generally occur on challenge courses and through field activities, and are led either by a full- or part-time trainer (Project Adventure, 2002).

Methodology

Grounded theory methodology (Strauss & Corbin, 1998) was used for this study. As advocated by Charmaz, (2000) I adopt a constructivist stance that locates theorizing in a broader social and historical moment, assuming varied and inconsistent individual perspectives.

Data collection. Several methods were employed to collect data before, during and after four-day Adventure Programming and Adventure-Based Counseling workshops:

1. *Trainer interviews* occurred using a semi-structured format (Fontana & Frey, 2000).
2. *Field notes* (Emerson, Fretz, & Shaw, 1995) focused on: (a) participant interactions during activities; (b) how events are structured by rules, physical configurations, and frames; c) how participants talk during reflections, including ways trainers guide, assist with, participate in, or remove themselves reflection discussions; and (d) points at which the trainers intervene in events and participant actions subsequent to these interventions.
3. *Naturally occurring talk* (Silverman, 2000) was recorded during games, initiatives, reflection sessions, structured and unstructured group dialogues, and specific dyadic exchanges.
4. *Participant interviews* were conducted informally and conversationally. Interviews were conducted during meals, during free-time, and after the end of the workshop day. Questions focused on the workshop as a process, following the action emphasis made by Charmaz (2003,p. 316).

Data Analysis. A standard grounded theory approach was followed:
(a) simultaneous data collection and analysis, (b) pursuit of emergent themes through early data analysis, (c) discovery of basic social processes within the data, (d) inductive construction of abstract categories that explain and synthesize these processes, (e) sampling to refine the categories through comparative processes, and (f) integration of

categories into a theoretical framework that specifies causes, conditions, and consequences of the studied processes. (Charmaz, 2003, p. 313)

QSR NVivo software was used for coding and data management.

Results

1. Participant learning follows a trajectory similar to that outlined by Lave and Wenger (1991), whereby participants move toward full participation in a community of practice specific to Project Adventure, yet situated in the broader "field" of adventure education. Participants' progress along this trajectory is highly structured by the institution and monitored by the trainer, although it is not impervious to aberrations. In this view, "learning" follows interactions with institutional, cultural/historical and psychological tools (Kozulin, 1998; Vygotsky, 1987). The alignment of specific verbal codes with participant actions (i.e., through "reflection") is particularly important.

2. Social structures, most notably gender, were salient in the constitution of experience. While some aspects of the adventure experience hold the potential to transform how people interact with social structures, certain common discourses that are entrenched in the field (i.e., teamwork, the Experiential Learning Cycle (Kolb, 1984)) served to mask the reproduction of gender hierarchies, despite the intentions of the trainer.

3. Trainers routinely mediated participants' involvement in events, a condition that appears to be required in order to conduct the adventure experience. Despite claims that "the goal is not to impose or conform, but to bring order and coherence to the power of the human collective" (Wyatt, 1997, p. 84) during adventure programs, the structuring of other people's activities and the act of facilitating them is a form of influence and is unavoidably power-laden (Hall, 1997). As Fenwick (2001) notes, experiential learning is "neither neutral nor innocent" (p. 3) in this respect.

Discussion

These findings, which will be increasingly fleshed out as the study is concluded in the spring of 2005, have several important implications. First, adventure educators inescapably handle power and contend with social structures. Claims to the effect that leaders are "largely removed from their roles as interpreters of reality, purveyors of truth, mediators between students and the world" (Chapman, 1995, p. 239) are increasingly untenable (cf Brown, 2002; Holyfield & Fine, 1997). Instead, instructor influence is largely exercised through the provision of mediating artifacts (e.g., props, debrief techniques), creating a contradiction between theories that ignore the role of mediators (or claims that deny them) and practices that depend upon them. Therefore, advancing the pedagogy of outdoor adventure education would be aided by explicitly recognizing the role of mediating artifacts, since it is a primary aspect of adventure work.

Second, it is important to explore the implicit cultural and institutional situatedness of adventure discourses, especially noticing the practices and paradigms that may reproduce dominant social roles and work against democratic or emancipatory goals.

Finally, the conclusions drawn from this analysis continue to stress the limits of current theories such as the Experiential Learning Cycle (Kolb, 1984) to explain social phenomena occurring in experiential settings. I suggest that contextual analyses originating from Vygotskyan activity theory (e.g., Engestrom, 2003; Vygotsky, 1987), make important advances in understanding experiential education.

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ENVIRONMENTAL OUTCOMES OF WILDERNESS-BASED PROGRAMS OF DIFFERENT LENTHS

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Research Questions

A number of studies have investigated the importance of direct experience with nature for the development of environmental attitudes, but few studies have evaluated wilderness-based programs in comparison to other type of programs: environmental education, residential-based, and school-based programs. Moreover, these previous studies have neglected to address the differences in program duration, the multi-dimensionality of environmental attitudes, and the influence of individual characteristics (e.g., age) on program outcomes (Gillet, Thomas, Skok, & McLaughlin, 1991; Haluza-Delay, 1999; Hanna, 1988; Perdue & Warder, 1981). This study examined (1) how long-term and short-term wilderness-based programs vary in their outcomes for participants' environmental feelings, wilderness attitude, and environmental attitude; and (2) how individual characteristics are related to program outcomes.

Procedures

University students (N=105) participated in either a long-term (3-week) or short-term (5-day) wilderness-based program. Participants' environmental attitudes were measured before and after both programs using existing Likert-type self-report questionnaires scales: the Environmental Awareness Questionnaire for environmental feelings (Szagun & Pavlov, 1995), Wilderness Issues Questionnaire for wilderness attitude (Hanna, 1988), and the Revised New Environmental Paradigm (NEP) Scale for environmental attitude (Dunlap, Van Liere, Mertig, and Jones, 2000).

Results

The ANOVA and *t*-test procedures indicated unexpected results: environmental feelings *decreased* in the long-term group ($t(104,1) = 7.45$, $p < .05$). On the other hand, wilderness attitude *increased* in only the short-term group ($t(104,1) = -2.52$, $p < .05$). No significant differences for environmental attitudes were found between the two groups.

Stepwise regression indicated that participants raised in smaller communities showed more positive changes in environmental feelings and environmental attitude, and that those with higher levels of wilderness experience showed more positive change in wilderness attitude ($.10 \leqq p \leqq .20$). However, these individual background differences explain only 1.8% to 2.6% of the variance of each program outcome.

Conclusions

Program Duration & Multi-dimensionality of Environmental Attitudes.

Two explanations are possible for the long-term group results. First, because the long-term group was exposed to extended challenges during their wilderness trip, the responses may have reflected deteriorating physical and psychological conditions, i.e., exhaustion. These students may have therefore felt less appreciative of those natural environments. Second, more time in the wilderness may have led to desensitization toward natural environments and related issues. Thus, one cannot always assume that longer wilderness-based programs lead to more pro-environmental attitudes.

The lack of any change in environmental attitude in neither of the groups is not surprising. The Revised-NEP scale is a more comprehensive measure of global environmental perspectives and related issues than the other two scales. One should not automatically assume that wilderness-based trips are effective to any aspect of environmental

attitudes and/or beliefs.

     Influence of individual characteristics.

     Numerous studies have shown that people raised in large communities exhibit more pro-environmental attitudes than their counterparts; in this study, however, the results are different: participants raised in smaller communities exhibit more *changes* in pro-environmental attitude. On the other hand, outdoor experience appeared to be not only an influential factor explaining for *changes* in environmental attitudes but also one exhibited by pro-environmentalists in previous studies (Tanner, 1980; Palmer, 1993; Place, 2000). Thus, the factors leading to *changes* in environmental attitudes through direct wilderness experience are not always the same as those exhibited by pro-environmentalists. These results lead to the further question: What other characteristics of individuals (i.e., psychological and socio-demographical) contribute towards pro-environmental attitudes during wilderness-based trips?
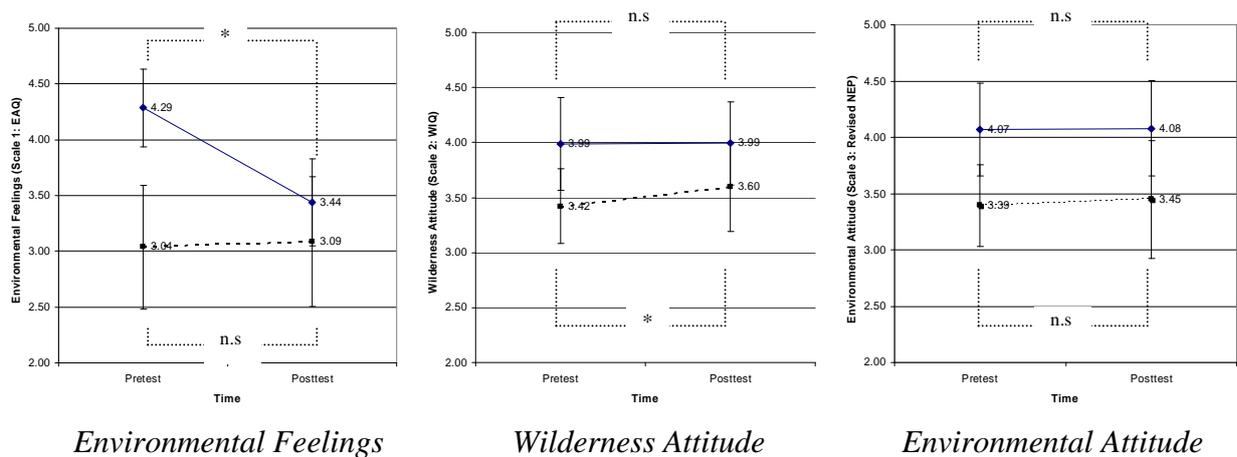

Environmental Feelings   *Wilderness Attitude*   *Environmental Attitude*

Note. * p < .05

| ____ Long-term |
| …….. Short-term |

Figure 1. Wilderness-based program outcomes for the long-term (3-week, n=80) and the short-term (5-day, n=25) groups

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A Heuristic Inquiry: Experience of Being a Leader During a Low Ropes Course Program and Being a Leader at Work:

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One of the significant implications for the enhancement of experiential education is the expansion of facilitators' understandings into the experiences of their participants. It is important for facilitators of learning to recognize that one's choices in life reflect subjective differences in meanings and values. By exploring the question, "What is the lived experience of being a leader during participation in a low ropes course program and being a leader at work," this qualitative heuristic investigation examined the deeper meaning of what the phenomenon of being a leader on a ropes course and at work represented to the study participants. Since the experience of leading is a personal, subjective process, the research methodology is also process-oriented, concentrating on events, qualities and feelings of the experience rather than on the outcomes or results. The foundation for the research in this study intertwined Jack Mezirow's transformative learning theory and Clark Moustakas' research method of heuristic inquiry, because these approaches provide the structure for the researcher to explore the meaning that individuals assign to their lived experiences. The theory of transformational learning within the context of heuristic inquiry provides the facilitator with a unique perspective from which to explore meanings and values by focusing on depicting the experience from the frame of reference of the experiencing person(s). Subsequently this provides greater insight in how to design and facilitate experiential programs along particular meaningful and relevant lines.

The low ropes course as a training medium provides experiential opportunities for people to engage in challenging team activities to improve interpersonal skills. From a population of 130 participants in ten different ropes course programs focused on leadership development, the researcher purposefully selected thirteen (13) study participants, called **co-researchers**, who exhibited pre-determined leadership behaviors identified in the literature. Leaders were identified and invited to participate in this study as co-researchers when they exhibited three or more of the leader behaviors during the low team-based initiatives on the ropes course such as the team hula hoop pass, team juggle, river crossing, calculator, mission possible. A leader (a) challenged the process by questioning and/or inviting the group to go faster, higher, or more efficiently; (b) clarified the vision, goals and directions; (c) encouraged and/or created an environment where ideas could be heard; (d) modeled the way by going out in front on an activity; (e) encouraged teammates verbally or physically; (f) recognized and used the talents of the group members; (g) asked for feedback or gave feedback; (h) verbally supported doing the activity within the boundaries of integrity; (i) and/or took 100% responsibility for actions versus blaming others (Kouzes and Posner, 1995).

Heuristic research concepts and methods were used throughout the study including the researcher's personal identification with the topic of inquiry, self-dialogue, tacit knowing, intuition, indwelling, focusing and frame of reference. According to heuristic inquiry a small and adequate sample was selected purposefully to provide the most information about the topic of study. To ensure maximum variation in sampling for this research investigation, a diverse range of co-researchers was selected, with males and females of varied ages, diverse ethnic backgrounds and different professional occupations being represented. To establish credibility in this inquiry the researcher used triangulation; researcher reflexivity; member checking; collaboration; disconfirming evidence; thick, rich descriptions and an audit trail.

Qualitative data on the experiences of being a leader was gathered and triangulation was achieved by using a rubric to observe leader behaviors on the ropes course, conducting in-depth interviews with the selected co-researchers and analyzing documents. The audio-taped dialogues with the co-researchers provided thick, rich descriptions and metaphors about their experiences of being a leader on the ropes course and being a leader at work. The researcher organized this

data by creating an individual depiction for each co-researcher that was member-checked and revised for accuracy. The recurring responses and metaphors were coded, categorized and formulated into core themes. These themes were then synthesized and integrated into a creative, composite interpretation, rich with metaphors that reflected the essence and meaning of the experience of being a leader in two settings. While each experience was unique, there were fundamental commonalities among them that encompassed the principles of several leadership theories. The significant meaning revealed was that being a leader was a big responsibility and it provided opportunities to transform and be transformed, which was enjoyable, rewarding and sometimes frustrating.

Six major findings emerged from the inquiry. The first related to the concept of leaderless groups and emergent leaders. A leader emerged from each of the leaderless groups that started on the ropes course. The second finding was that the experiences of leading on the ropes course and at work closely mirrored each other. The third finding represented the major difference between being a leader on the ropes course and being a leader at work. The ropes course provided a setting for participants to experience being transformational leaders, without the ramifications of office politics, transactions and economic pressures. The fourth finding was that managing followers was the single most frustrating aspect of the experience of being a leader. All of the frustrations occurred when the values and principles espoused by leaders and followers were not aligned. The fifth finding was that the experience of being a leader was holistic because it encompassed who the individuals were, how they performed in two different settings, what feelings this evoked and what significance it held for them. The sixth finding revealed that trait, style, situational, transformational and visionary leadership theories are not mutually exclusive.

This study provides the reader with a comprehensive understanding of what it means to be a leader on the ropes course and at work, from the perspectives of those who lived the experience. Given a neutral and natural setting on the ropes course, leaders emerged from what started out as leaderless groups, and the experience of being a leader on the ropes course closely mirrored the experience of being a leader at work. The experience of being a leader was holistic and encompassed the personal attributes and characteristics of the co-researchers, how they performed on the ropes course and at work, what feelings this evoked and what significance it held for them. The co-researchers described who they were as leaders, what things they did as leaders, whether they focused their attention more on the task or the people, the feelings of joy and frustration they felt and what they gained from the experience.

The study enhances the knowledge bases of experiential and leadership education and it confirms existing leadership theories, constructivist educational philosophy and the transformative learning theory. The findings support the view that trait, style, situational, transformational and visionary leadership theories are not mutually exclusive but rather, they are intertwined. Finally, the study substantiates the validity of brain-based learning and isomorphic facilitation for promoting the transfer of meaning from ropes course experiences to real-life work situations.

This study brings a measure of credibility to the use of action-learning. Ropes course and leadership development professionals have gained meaningful data and in-depth knowledge of what the experience of being a leader really is and what it means to participants. As a result, practitioners have the necessary foundation to design and facilitate action-learning and leadership development programs in a manner that will recreate and best promote this meaning so that participants will learn, grow and be transformed as leaders. Furthermore, organizational leaders have qualitative, empirical evidence to support the use of such programs to develop transformational leaders, followers and teams.

Looking Deeply In: Using Photo-Elicitation to Explore the Meanings of Outdoor Education Experiences

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This exploratory qualitative study utilized photo-elicitation interviews to investigate the inner significance of structured outdoor experiences for participants. Photo-elicitation provided a model for collaborative research in that the researcher became a listener as the participant interpreted the images for the researcher (Collier & Collier, 1986). In the present study, photographs taken by the participants during their outdoor experiences formed the foundation of the photo-elicitation interview process.

Method: Data collection and analysis for this study took place during 2002 and 2003. Data for this qualitative study was gathered using photo-elicitation interviews with 14 participants of a college-based outdoor program. Interview participants were selected using criterion-based sampling. The sample attempted to provide a cross sectional representation of college students. They ranged in age from 18-21, ranged from first through fourth year students and had participated in backpacking, rock climbing, whitewater kayaking, or sea kayaking programs. The trips varied in length from a weekend to three weeks.

During the photo-elicitation interviews, the participants and the researcher examined and discussed the photographs that the participants took during their outdoor trips. During and after data collection, an inductive analysis was conducted using both the participant's photographic images and the interview transcriptions.

Results: *Capturing the Moments*. When the participants were asked why they took cameras on their outdoor trips, their answers invariably involved the word "capture." Most had a strong desire to use photographs as a way to grab hold of a moment. There seemed to be a fear that, if a photograph was not taken, the moment could be lost forever. By looking at the photographs, they could relive the feelings, thoughts and sensations of the experience. Using their photographs as the basis for discussion, the participants ascribed many meanings to their outdoor experiences. These meanings were grouped into three explanatory themes: spiritual connection with the outdoors, connections with others through outdoor experience, and self-discovery and gaining perspectives through outdoor experience.

Spiritual Connection with the Outdoors. For many of the participants, the outdoors was a place to find stillness, calm and peace. The outdoors was also a place where the participants could connect to a sense of a higher purpose or power. The out of doors inspires a contemplative mindset where they are drawn to ask themselves deeper questions. Participants frequently drew upon the words 'awe', 'beauty', and 'spiritual' to describe the deeper connection they felt to the divine and the natural world as a result of being on outdoor trips. For some participants, this spiritual connection was the key component in why they go outdoors. At times, the participants were able to be very articulate about the spiritual meanings of their experiences and at other times, they struggled dramatically to find words to describe such meanings.

Connections with Others Through Outdoor Experience. Many of the participants chose to spend time in the outdoors because of the connections they were able to make with others during the experience. They identified the outdoors as a unique container for developing friendships and discussed how the outdoor environment invites and requires that people work together and support each other. The outdoors was also thought to help the participants develop skills for maintaining their friendships over time.

Self-Discovery and Gaining Perspective Through Outdoor Experience. Many of the participants identified outdoor experiences as providing opportunities for self-discovery and gaining perspective. The outdoor environment provided occasions to experiment with different ways of living and being as well as chances to look at life from new vantage points and vistas. For many of the participants, participating in the outdoors gives them access to a new range of metaphors with which to describe and understand their lives. For some of the participants, there was meaning in the sense of renewal or clarity that came from participating in an outdoor program.

Discussion: The data from the present study suggested that meanings of outdoor experiences were varied, interrelated, and hard to describe. The present study replicated results from previous studies (for example, Arnould & Price, 1993; Patterson et al, 1998; Pohl et al., 2000) while utilizing a new methodology, photo elicitation. While this study contributes to a growing body of knowledge revolving around the meaning of outdoor experiences, in the end, it provokes more questions that it answers. We know from this study and past ones, that connections to self, others and the environment form the foundation of outdoor experience, however, there is still a great deal unknown about how or why these critical elements function in this way.

Using participants' photographs during interviews aided in building rapport, provided image-based metaphoric reflexive opportunities for participants, and provided a secondary data source (i.e. the photographs) for data analysis and triangulation. Outdoor participants are involved in an act of meaning making. Through their outdoor experiences, they are seeking new stories with which to organize and understand their lives (Patterson et al., 1998). Using photographs as a memory trigger sharpened the participants' ability to tell narratives of their experience and to reflect on them.

Each photograph acted as a memory anchor for the participant as he or she recalled the moment of the photograph, its intention, and the affective context surrounding it. Having that anchor set against the passing of time freed the participants to describe the meaning of their experiences. Similar to Stringer and McAvoy (1992), most participants acknowledged the inadequacy of words alone to convey the essential nature of their experiences. Participants used photographs to capture and preserve the sense of awe, mystery, beauty, tranquility, solitude and peace that their outdoor experience invoked within them. Using these photographs in the research enabled the conversation to proceed to a deeper level of understanding and meaning between the researcher and participants. Similarly, Carlsson (2001, pg. 126) reported, "photographs are superior in their ability to convey experiences compared with spoken and written words only."

Photography enabled participants to identify peak or significant moments during and after the experience. It aided in the visual and emotional memory of the experience and it captured a greater level of detail than the participants could retain by themselves alone. Paralleling Colson (1979), participants generally took a greater number of photographs when an experience was new. They exhibited a strong desire to capture every nuance of the excitement, intensity and learning of the new activity or environment. Participants drew on these photographs as proof to themselves and others that they did indeed participate in or succeed at some activity (i.e. climbing a peak, running a rapid, cooking a meal over a fire). They rely on the photographs in times of stress or lowered self-esteem to remind themselves of the powerful and moving times they had while outdoors. Given the power of photographs to keep the outdoor experience alive long after it has been completed, it is recommended that outdoor educators embrace and facilitate student photography during the outdoor experience.

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