A SUMMER UNIVERSITY OUTDOOR EDUCATION COURSE AS A SIGNIFICANT LIFE EXPERIENCE: PROCESS THEMES

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Abstract

The purpose of the study is to explore the processes that link various components of a university undergraduate summer outdoor education (OE) course with the perception of the course as a significant life experience (SLE). Semi-structured, in-depth interviews were held with 15 persons who took a bilingual summer university OE course over 20 years ago. The researcher asked "how" and "why" questions to probe for processes that linked specific OE course experiences and activities with a SLE. The interviews, approximately 45 minutes, were audio-taped and then manually transcribed and coded. Interpretive analysis and the constant comparative method were employed. Two main process themes emerged as contributing to a SLE: opportunities for personal growth and group experience. The personal growth opportunities theme includes the following sub-themes: personal challenge/accomplishments, personal reflection, and outside one's comfort zone. The group experience sub-themes are teamwork, ongoing friendships and bilingualism.

1.0 Introduction

There is relatively little research on the life significance of outdoor education (OE) programs and courses with the exception of Daniel's (2003) research on the life significance of a university wilderness expedition. However, Daniel's (2003) research examined the life significance of an outdoor wilderness expedition, whereas few studies have explored the life significance of an OE course, especially one that is bilingual in nature (French and English) Therefore, the current study addressed this gap in the literature. The current research was retrospective in nature and following Chawla (1998) took "a life-span perspective, seeking to understand how experiences that may have occurred 20 or 30 years ago continue to influence people's feelings or behaviour" (p. 385). The study's theoretical framework emerged from significant life experience (SLE) research in which participants are asked to recount experiences of their own choosing (Tanner, 1980). This SLE framework seeks to understand the long-term value of earlier life experiences by sampling autobiographical memories. Daniel (2007) noted that significant life experiences are events that play an enduring, central role in a person's narrative or life story.

Presently, the OE field is dominated by an outcome-oriented perspective, which studies the consequences of an OE program; however, a process-oriented perspective is necessary because it seeks to understand the mechanisms that facilitate OE outcomes. Sibthorp, Paisley and Gookin (2007) argued that explanations of how adventure-based recreation programs create change and promote development remain elusive unless there is investigation into the causes of change in participants, and the same can be said for OE programs. There is an increasing interest in the field of OE to move beyond simply focusing on program-specific outcomes to developing more evidence-based models that analyze the influence of specific mechanisms of change (Sibthorp et al., 2007; Ewert & Sibthorp, 2009). McKenzie (2003) supported this view in stating that there has been considerable exploration of the learning outcomes that students experience in OE courses; however, there is a need for understanding the topic of how these outcomes are achieved. Therefore, researchers (i.e., Sibthorp et al., 2007; Ewert & Sibthorp, 2009; McKenzie, 2003; Neill, 2007) have been seeking to establish links between OE course components and outcomes. When speaking of the concept of the "educational black box" of outdoor programming, Ewert (1983) drew researchers' attention to questions of how and why something works. Considering this in the context of the present study, participants could be asked why their OE experience led to an enhanced environmental awareness and what parts of the outdoor course led to this development. Within the literature, there are a few examples of process-oriented research. McKenzie's (2000) study focused on the relationships between the qualities of an activity and program outcomes. She found that participants described processes such as achieving success, having fun, learning new skills and being responsible for yourself as leading to program outcomes. Other possible processes include nature setting, group living, course facilitation and challenge. As well, Baldwin, Persing, and Magnuson (2004) discussed mediators that linked outdoor program components with distal outcomes; these mediating variables included peacefulness, a novel or unfamiliar setting, physical challenge, emotional challenge, and co-operative behavior and decision-making.

2.0 Methods

The present investigation was one part of a larger research project on OE as a SLE. The overarching research question framing this study asked "what are the **processes** that link various components of a university undergraduate summer OE course with the perception of the course as a SLE?" By qualitatively exploring the processes, the research explores what components, aspects and

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activities of the OE course contributed the most to the course being a SLE. The processes illustrate the connection between the OE course activities and the significant life impacts.

2.1 The OE Course

The current study explored a bilingual (French and English), summer OE course offered by the University of Ottawa since the mid 1970s. Until the early 1990s the course was located in a natural setting at the university's camp near Gracefield, Quebec and was two weeks in length. During this period of time, the course purpose, objectives, outline, location and duration remained largely the same. The 1979-1980 calendar description was as follows: "Introduction to social, organizational, technological, environmental and educational topics associated with group living, ecology and summer camping skills, conducted in an appropriate setting." The course content included units on: social integration, hebertism (woodland challenge courses, including balance beams, ladders and rope swings) swimming, canoeing, orienteering, sailing, canoe trip, campcraft workshops, leadership tests, rock-climbing, jog and dip (included 6-mile marathon at end of course), conservation, Mont Barbu night hike, solo, sensitivity awareness, and artistic and service projects.

2.2 Data Collection

In-depth, semi-structured interviews were held with 15 persons who took the University of Ottawa summer OE course **over 20 years ago**. The sample was selected through a combination of purposive and theoretical sampling. Purposive sampling has been used in exploratory research to select people who are especially informative for the research question under study (Patton, 2002). Essentially, the sample was selected to include people of interest and exclude those who did not suit the purpose. As the study focused on the processes of a SLE from an OE course, the researcher wanted to study those former students who participated in the summer OE course offered by the University of Ottawa over 20 years ago. The sampling and data collection stopped once the researcher and her supervisor felt she attained theoretical saturation; consequently, the final sample size was 15 participants. Essentially, only the same themes were emerging in the interview data. The sampling strategy involved recruiting participants through the university's Alumni Directory, an alumni newsletter, the course founder, a long-time course instructor, and the researcher's thesis supervisor. Finally, the snowball technique was also employed to complete the sample in that participants were asked to pass on the recruitment notice to people they knew who had taken the OE course.

With respect to the qualitative instrumentation, an in-depth interview schedule was used to explore the significant life experiences of the OE course. The in-depth semi-structured interviews followed an interview schedule made up of primary and secondary questions. The semi-structured interview questions employed in this research were patterned upon Daniel's (2005) six open-ended questions about the life significance of the OE program. By using similar questions this study was able to observe whether similar outcomes appear within the University of Ottawa OE course alumni as in Daniel's study group. Shooter (2010) challenged OE and experiential education researchers to bring different studies together in order to explain "how a tangled web of program components coalesce to produce outcomes" (p. 292).

Most of the participants indicated an interest in participating in the study because they had a positive experience in the OE course and thus were open and willing to talk about the role of the course in their lives. It was very easy and comfortable for the participants to talk about their experience of the OE course. Throughout the interviews, the researcher generally followed the interview schedule but also followed up with probing questions. The researcher asked the informant what he or she considered the most significant experiences of the OE course, which were followed up with probes to understand why these experiences were significant. In addition, participants were asked "how" and "why" questions in order to understand the processes that link participation in the OE course with the OE impacts. Some examples of questions that addressed the processes were: "What was it about the course that made a difference in your family life?" "What was it about the course that made you more environmentally conscious?" and "Can you provide an example from the course that illustrates how the OE course impacted your ability to understand yourself?" The researcher did not assume that participants would have a positive outlook on outdoor experiences, and therefore, it was important to listen to the participants carefully and engage in probing questions throughout the interview in order to achieve a complete storyline. The interviews, approximately 45 minutes to an hour in length, were audio-taped, with the consent of the participant, for subsequent transcription and data analysis. As well, a few field notes were taken throughout the interviews concerning the participants' body language and silences.

2.3 Data Analysis

The audio tapes of the interviews were manually transcribed verbatim. and manually coded. Interpretive analysis was employed in that the transcripts were analyzed *inductively* to seek patterns and themes based on the data (Patton, 2002). Interview data were analyzed using the constant comparative method (Corbin & Strauss, 1990). The transcripts were carefully read, reread and coded to determine recurring themes and patterns within the data. During this process, patterns were observed which represented some explanations for the impacts of an OE course on the participants' lives. In order to confirm these patterns, the analysis focused on the consistencies and inconsistencies among responses. Data was organized according to these patterns which then led to the development of a number of themes which explored the impacts of the OE course.

Although the researcher had not completed the summer OE course, she recognized that she may have had some preconceptions as to what makes an outdoor experience significant; therefore, it was essential to recognize this and appropriately bracket off any biases. To ensure that the interpretation of data was valid, the researcher's supervisor also reviewed the transcripts and themes,

which is a form of triangulation. Therefore, multiple evaluators were used to confirm and modify the themes. Furthermore, the semi-structured interviews underwent member checking. Instructions were given to contact the researcher if participants either felt the transcript did not reflect their interview or if they did not agree with the findings. Of the 15 participants that were interviewed, six confirmed that the transcript reflected their interview. Of these six participants, three included minor changes, such as the spelling of a name. The other nine participants did not reply to the researcher about their transcripts. None of the participants commented on the findings.

3.0 Results

3.1 Participants

The in-depth interview schedule was designed to ask a number of preliminary questions about where and when the course took place before asking about the association between participation in the OE course and a SLE so that participants would feel at ease before talking about their experience. Furthermore, these preliminary questions were designed to bring participants back to that time in their life and effectively aid with their recollection. Six participants discussed having difficulty remembering activities from the OE course, and many had not previously thought about the relationship between participation in the course and long-term impacts in their lives. A number of participants indicated that they were gaining insight about their lives as they answered the interview questions. As well, two participants mentioned that they had been thinking about how the course played an influential role in their lives between the time they agreed to participate in the study and the time of the interview. Most participants discussed the positive role of the OE course in their lives. Not one participant felt that the course was an overall negative experience. Only after being specifically asked or probed by the researcher did a few participants speak of negative events during the course. However, most often those negative experiences were viewed as challenges that contributed to an overall positive, learning experience.

The majority of participants took the summer OE courses at the ages of 21 and 22; however, one took the course at 25 years of age. Participants' current ages ranged from mid-forties to mid-sixties. At the time participants took the OE course at the University of Ottawa, eight were in the Physical Education program, two were in the Recreation program, and five were in the Kinanthropology program. A majority of respondents stated that they had not participated in an OE program before taking the university OE course; however, there were a few who stated they had extensive outdoor experiences prior to the course. Six of the participants were elementary or high school teachers. One other participant had been a teacher in the past but not currently. Other occupations that were represented included a senior manager of a nature park, a health policy employee, a wellness company employee, a business analyst, an athletic performance consultant, a university professor and a university instructor. Only one participant was retired. Ten of the participants were female and five were male.

There was a range of outdoor activities practiced by the participants as well as a range in their outdoor skills. Most participants shared that they were active in the outdoors; however, a few mentioned they were not so active in the outdoors anymore. With respect to their motivations for enrolling in the OE course, participants provided the following reasons: interest in the outdoors, experience of fun, time to spend with friends, and knowledge of outdoor techniques and survival. As well, several participants mentioned that taking the OE course allowed them to earn "quick and easy credits," as the course was worth 4 credits over a short period of time (two weeks) with no exam and no or limited assignments.

3.2 Impact Themes

Although this paper focuses on process themes, another part of the larger research study discovered six themes that summarize the significant life impacts of the summer OE course: development of interpersonal/social skills; self-discovery; environmental impacts; leisure style change; transfer to others; and advancement of outdoor knowledge/skills. Within the theme of development of social skills there were the two sub-themes of strong interpersonal bonds and application to work. The theme of environmental impacts had the sub-themes of change in environment behaviour and environmental appreciation. The transfer to others theme included the sub-themes of transfer to children and family as well as transfer to students (for those participants who were teachers).

3.3 Process Themes

More important than just recognizing the OE course as a SLE is trying to understand the processes that connect the course activities with the significant life impacts. Emerging from the data were two main process themes that contributed to significant life impacts. First, the majority of participants (10 out of 15) commented on how **opportunities for personal growth** in the OE course brought about a significant life impact. More specifically, this personal growth opportunities theme included the following sub-themes: personal challenge/accomplishments, personal reflection, and outside one's comfort zone. Second, there was overwhelming consensus amongst participants (13 out of 15) that the **group experience** in the OE course brought about a significant life impact. The sub-theme of bilingualism was also found to contribute to the course as a SLE.

3.3.1 Theme one: Personal growth opportunities.

Occasions that involved a personal challenge and/or accomplishment, personal reflection, or being pushed outside one's comfort zone were perceived as being conducive to a significant life impact. In order to ensure anonymity, the following references to

interview participants use fictitious names. The quote by Aaron captures a sense of how the OE course allowed participants to realize and overcome their fears:

We were going into something like 'What are you crazy?,' 'We're going up here?" You know, it was so unknown...Overcoming your fears, that was a big, big one, and, and trusting other people. The person that's belaying you as you're going up...And coming into something that you're...it's completely unknown to you that seems dangerous.

Participants described how certain activities, such as the solo and rock climbing, allowed them to "deal with" or "face" their fears. Participants' spoke of rising above the fear and completing the task at hand and the enjoyment received from challenging oneself. Several participants spoke specifically about how the 48-hour solo experience provided time for thought and contemplation. More importantly, participants discussed how this reflection time was conducive to experiencing a long-term impact from the course. With respect to the sub-theme of being pushed outside one's comfort zone, Elaine described how "pushing your limits" in the OE course was connected to being "self-assertive" and "self-confident." Therefore, Elaine illustrates how the process of being pushed outside one's comfort zone is linked to the impact of personal growth. Similarly, Katie described how the OE course pushed her outside of her comfort zone, which she associated with the lasting impact of self-confidence (i.e., "I'm strong). When Katie was further probed as to *how* being pushed outside of her comfort zone had a long-term effect on her, she answered:

I'd say that there have been times where I don't think you can do something and you just, again, similar to...the situation...in summer camp, you had to do it...you're in the middle of a rock, you have to go on, and I think too, from a work stand point too or...other situations like that where you...think "oh my gosh, what am I going to do here?" But you know you have to go on, so I guess it's the same sort of thing that...I've applied...I know that you have to...find a solution...you can't go back, because you have to go forward...I see it from that standpoint.

3.3.2 Theme two: Group experience.

Participants discussed the importance of *conflict resolution*, *teamwork*, *communication*, and the *bilingual* nature of the course. One of the participants, Nick, mentioned that the OE course was a good setting for learning social skills. In his response to being asked for examples of activities from the course that encouraged the development of social skills, he provided a good illustration of the connection between the process (i.e., group activity) and the impact (i.e., social interaction):

One of the activities they did was this musical chairs type of thing ... what happened was, you pulled out a chair, but now the idea was to get everybody on those fewer chairs, to the point where you get to one chair, but you got to get everybody on it, right? So everybody's hooking and holding, you know, holding on to each other type thing...Those kinds of things break down barriers. People that were shy opened up more...So you learn whose the more assertive, right?...Who are the people who stand back, and just follow, who the leader is, who are the ones who are willing to try different things? Who are the ones that are more risk takers? You learn those kinds of things, so that definitely helps in terms of the social interaction.

Some respondents also noted how teamwork was conducive to a significant life effect from the OE course. As was seen in the interviews, as participants progressed through the OE course, they realized they were dependent on their fellow students, and consequently, they learned to cooperate and capitalize on the strengths of each group member. Isabelle stated that the summer OE course allowed her the opportunity "to learn to adapt to people's strengths." This was also corroborated by Heather who discussed how working with others on the summer OE course had a lasting impact on her life in regards to being more aware of group dynamics and the needs of individuals in the group. Likewise, Liam explained how his group could complete a task quicker once they learned to "work as a team." Liam recalled being competitive and comparing himself to others during the beginning of OE course experience; however, later in the course he discovered that he had "to work... as a team, and that's what I kept from that experience." Furthermore, Liam commented, "Sometimes you would ... think of just yourself and you'll walk and you'll walk and some are slower, but eventually if you learn to help them, you get there as a team faster than just yourself."

Elaine, in explaining how the OE course was significant to her, also alluded to this idea of the group experience having a lasting impact, and in this case, the impact was on her ongoing friendships. She went to the OE course with some friends; however she left with new friends who she still contacts today. Matthew was able to make a link between the group experience on the OE course and his career as a teacher now. Not all participants perceived the course's group experience as being *positive*. One participant, Fiona, went through a challenging camping expedition with her peers who were "not interested in doing anything." Even though she underwent a negative group experience, the course still had a lasting impact on her; therefore, a SLE does not necessarily need to evolve from a *positive* event. It is evident that the group experience in the OE course brought about significant life impacts.

Several participants also spoke of how the bilingual nature of the OE course contributed to a SLE. Therefore, the sub-theme of bilingualism is found within the process of group experience. Jasmine, an Anglophone who could also speak French, felt that the OE course offered great "leadership opportunities" in her second language. Furthermore, Jasmine noted how she enjoyed the use of French on the OE course and continues to practice it today, "The language was great, and any chance … I still study French

and I still speak French." One Francophone participant, Elaine, observed that the bilingual make-up of the course encouraged the long-term impact of effective team work skills. Heather also associated the bilingualism in the OE course with the impact on her lifestyle, career and cultural awareness. It is important to note that not all participants viewed the group experience as beneficial. Cathleen spoke about how, "the whole group experience should be important but it wasn't." She laughed and stated that, "I could have been just as happy alone...You asked me if I remember anybody from the course – no. That wasn't that big a deal to me. I never saw them again. It was to...be there. It was important for me."

4.0 Discussion

In general, the process themes identified through the data analysis were consistent with other conceptual discussions and research findings.

4.1 Opportunities for Personal Growth

The overall theme of "opportunities for personal growth" bears some resemblance to previous research. Much like how the opportunities for personal growth influenced participants' perception of a significant life event in the current study, Whittington (2011) discovered that opportunities for leadership significantly influenced girls' outdoor experience. This theme is also similar to research on the attributes of meaningful learning experiences in an OE program; Taniguchi, Freeman and Richards (2005) demonstrated that the perception of risk set in motion the sequence of attributes identified for creating a meaningful learning experience. According to Taniguchi et al., "the experience of perceiving risk allowed for the reconstruction of self" (p. 138); in other words, the perception of risk was a contributing factor for students to undergo self-discovery and have a meaningful experience. Comparably, in the current study, several participants discussed how fear and being pushed outside of their comfort zones were important elements in the OE course leading to a SLE.

The sub-theme of personal challenge/accomplishments aligned with one of Daniel's (2003) central themes; Daniel reported that participants refined or changed the way they viewed themselves, other group members, and their circumstances through being placed in challenging situations whereby they had to contend with stress, dissonance, uncertainty and new experiences. Similarly, McKenzie (2000) noted that inherent in outdoor and adventure activity is the element of incremental challenge, and a lack of success and challenge were detrimental to achieving program outcomes. Further, McKenzie found that challenge led to positive program outcomes and lack of challenge led to negative program outcomes. This theme is also consistent with Conrad and Hedin's (1981) finding that participants in effective programs had challenging tasks and Wigfield and Eccles' (1994) results that an environment which provides few opportunities for decision making, little support and limited choice does little to motivate participation and may ultimately lead to nonparticipation. Furthermore, the sub-theme of personal challenge/accomplishments also supports Duerden, Taniguchi and Widmer's (2011) discovery that challenge was an attribute that contributed to development gains in a youth adventure program. Essentially, the current study's examples of experiencing challenge consequently encourage the outcome of self-discovery.

Many interview participants recalled how the wilderness solo provided opportunities for personal reflection, which, in turn, were conducive to experiencing significant life impacts from the course. This finding is similar to Daniel's (2003) study where the solo experience was the most important and influential component of the wilderness expedition as a SLE. In addition, Greenway (1995) reported one study in which 92% of participants referred to "alone time" as the single most important experience of their outdoor program. Bobilya (2004) and Richley (1992) have observed that solitude in remote outdoor settings can promote opportunities for self-exploration, reflection and renewal. Kalisch, Bobilya and Daniel (2011) developed a model to better understand participants' perceptions of their solo experience, whereby they postulated that personal growth depends on receptivity, optimum stress, experience of change, and heightening of one's awareness. Applying this model to the current study, it can be speculated that the solo experience, along with other outdoor activities, offered moments of physical and emotional stress (i.e., personal challenge and being outside one's comfort zone) as well as reprieve from cultural influences that allowed for a further attunement to one's self and awareness of desirable qualities to apply back in daily life (i.e., self-reflection). These factors may contribute to how and why the process of personal growth led to a difference in participants' lives.

4.2 Group Experience

The second process that emerged from the interview data was the group experience. This group experience theme is consistent with literature that suggests the group is an influential element of outdoor adventure education (McKenzie, 2000). The theme of group experience also corroborated McKenzie's (2003) research that group characteristics such as reciprocity, cohesion and trust contribute to the overall group effectiveness in an Outward Bound wilderness program. The mutual exchange that evolves within a group is also considered to be an important factor in the personal growth of group members (McKenzie, 2000). According to McKenzie (2000), this reciprocity is thought to give participants a sense that they are valued and supported by the other group members; furthermore, it encourages participants to learn to balance individual needs with the needs of the group. McKenzie (2000) suggested that this feeling of mutual dependence, combined with the group's common objectives, creates a group bond between participants. In addition, this group experience process theme also bore some resemblance to Witman's (1995) finding that participants ranked "feeling like part of the group" as a valuable outdoor program component. Furthermore, Conrad and Hedin (1981) found that developing personal relations with others influenced both participants' personal and social development. Finally, research by Goldenberg, McAvoy and Klenosky (2005) found that participants who recalled group interactions from

their course connected this attribute to helping develop relationships with others and working as a team. Therefore, the present investigation's finding of group experience as a process supports Goldenberg et al.'s findings.

One speculation as to why the group experience process made a difference in participants' lives is that the OE course offered an opportunity for students to relate and connect with one another for 24 hours every day. For two weeks, the students were outdoors and away from a traditional classroom setting, which may have allowed for the group experience to have a more profound impact and thus lead to a SLE. The OE course offered a setting in which students had to learn to trust one another (i.e., rock climbing) and solve conflicts that seemed to have more imposing dangers. There was the additional element of communicating in a bilingual environment, which may have proven more challenging and thus more memorable and significant across participants' lives. In addition, the class composition of Anglophone and Francophone students provided a unique cross-cultural experience that tended to have a memorable and significant effect upon the students.

4.3 Limitations of Research

The primary limitation with this SLE and retrospective research is the possibility that memories of events from the past have been distorted during the intervening years (Kellert, 1998). The issue of researcher bias should also be noted because the researcher was responsible for reading and interpreting participants' texts and it is possible that the researcher may have misrepresented participants' meanings; however, member checking was used to attempt to address this limitation as well as having the researcher's supervisor interpret the results for the purposes of triangulation. Further, the present investigation's results cannot be generalized to other programs due to sampling techniques and sample size. In addition, the findings of this study may have emerged due to the use of a purposive sampling technique. As a result, there may have been an issue of self-selection bias. According to Sibthorp et al. (2007), the most substantial limitation with respect to this type of research is that most of the variables are self-perceptions. Indeed, the current investigation relied on self-reporting with respect to the semi-structured interviews. Another limitation put forward by Sibthorp et al. (2007) is the issue of response-shift bias. Response-shift bias insinuates that when participants know little about the program's content areas prior to its beginning, even minimal exposure to the programs' initiatives can lead to perceived learning. Another potential limitation of this research was the lack of comparison group. Clark and Leung (2007) found that recreation activities led to a significant influence on environmental concern; however, this influence was only recognized when the recreation participants were compared to the non-participants. Therefore, a comparison group would have allowed for this influence to be observed and documented.

5.0 Conclusion

While other studies have identified similar processes, the current study demonstrates how these processes may continue to have impacts 20 years after completion of the program. The current study is one of a few, if any, that has explored the SLE of a university OE course. What distinguishes this study is its retrospective approach that involved interviewing participants who took the OE course **over 20 years ago**. Further, the present investigation is unique in its exploration of a bilingual OE course. Therefore, the research findings make a unique contribution to the scholarly literature. However, even with this in mind, much more research is needed to understand the dynamics of the life significance of OE programs.

5.1 Implications for Practice

The most important implications arising from this study relate to OE programming. The findings of this study should draw outdoor educators' attention to instances of personal challenge/accomplishment, personal reflection and being pushed outside of one's comfort zone, as possible valuable components of an outdoor program contributing to personal growth. Further to that, the solo experience should be recognized as a valuable component contributing to personal reflection. In addition, OE programs should continue to foster the group experience through planning more group initiative activities and educating instructors on the value of the group in promoting both personal and social development skills. OE professionals have a role to play in educating people to understand the life-significance of a university OE course.

6.0 Citations

- Baldwin, C., Persing, J., & Magnuson, D. (2004). The role of theory, research, and evaluation in adventure education. *Journal of Experiential Education*, 26(3), 167-183.
- Bobilya, A. (2004). *An investigation of the solo in a wilderness experience program.* (Unpublished doctoral dissertation). University of Minnesota, Minneapolis.
- Chawla, L. (1998). Significant life experiences revisited. Journal of Environmental Education, 29(3), 11-21.
- Clark, A., & Leung, Y. (2007). Research update: Getting out, going green. Parks and Recreation, 42(8), 26-31.
- Conrad, D., & Hedin, D. (1981). National assessment of experiential education: Summary and implications. *Journal of Experiential Education*, 4(2), 6-20.
- Corbin, A., & Strauss, J. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3-21.
- Daniel, B. (2003). *The life significance of a spiritually oriented Outward Bound-type wilderness expedition*. (Unpublished doctoral dissertation). Antioch University New England, Keene, New Hampshire.
- Daniel, B. (2005). The life significance of a wilderness solo experience. In C. E. Knapp & T. E. Smith (Eds.), *Exploring the power of solo, silence and solitude* (pp. 85-102). Boulder, CO: Association of Experiential Education.

- Daniel, B. (2007). The life significance of a spiritually oriented, outward bound-type wilderness expedition. *Journal of Experiential Education*, 2(3), 386-389.
- Duerden, M., Taniguchi, S., & Widmer, M. (2011). Contextual antecedents of identity development in an adventure recreation setting: A qualitative inquiry. *Journal of Experiential Education*, 33(4), 383-387.
- Ewert, A., & Sibthorp, J. (2009). Creating outcomes through experiential education: The challenge of confounding variables. *Journal of Experiential Education*, 31(3), 376-389.
- Goldenberg, M., McAvoy, L., & Klenosky, D. (2005). Outcomes from the components of an Outward Bound experience. *Journal of Experiential Education*, 28(2), 123-146.
- Greenway, R. (1995). The wilderness effect and ecopsychology. In T. Roszak, M. Gomes, & A. Kanner (Eds.), *Ecopsychology: Restoring the earth, healing the mind* (pp. 122-135). San Francisco, CA: Sierra Club Books.
- Kalisch, A., Bobilya, A., & Daniel, D. (2011). The Outward Bound solo: A study of participants' perceptions. *Journal of Experiential Education*, 34(1), 1-18.
- Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology*, 15, 169-182.
- Kellert, S. R. (1998). A national study of outdoor wilderness experience. Washington, DC: National Fish and Wildlife Foundation.
- McKenzie, M. (2000). How are adventure education program outcomes achieved? A review of the literature. *Australian Journal of Outdoor Education*, 5, 19-28.
- McKenzie, M. (2003). Beyond the Outward Bound process: Rethinking student learning. *Journal of Experiential Education*, 26(1), 8-23.
- Patton, M. (2002). Qualitative evaluation and research methods (3rd ed). Thousand Oaks, CA: Sage.
- Richley, A. (1992). A phenomenological investigation of wilderness solitude. (Unpublished doctoral dissertation). University of Alberta, Edmonton.
- Shooter, W. (2010). A closer look at the "inner workings" of adventure education: Building evidence-based practices. *Journal of Experiential Education*, 32(3), 290-294.
- Sibthorp, J., Paisley, K., & Gookin, J. (2007). Exploring participant development through adventure-based programming: A model from the National Outdoor Leadership School. *Leisure Sciences*, 29(1), 1-18.
- Taniguchi, S. A., Freeman, P. A., & Richards, A. L. (2005). Attributes of meaningful learning experiences in an outdoor education program. *Journal of Adventure Education and Outdoor Learning*, 5(2), 131-144.
- Tanner, T. (1980). Significant life experiences: A new research area in environmental education. *The Journal of Environmental Education*, 11(4), 20-24.
- Whittington, A. (2011). Life after the river: Long-term impacts of girls' participation in an adventure program. *Journal of Outdoor Recreation, Education and Leadership, 3*(1), 40-52.
- Wigfield, A., & Eccles, J. (1994). Children's competence beliefs, achievement values, and general self-esteem change across elementary and middle school. *Journal of Early Adolescence*, 14(2), 107-138.
- Witman, J. (1995). Characteristics of adventure programs valued by adolescents in treatment. *Monograph on youth in the 1990s*, 4, 127-135.