Does Outdoor Education Effective on Team Cohesion?

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ABSTRACT

Many investigations have explored the benefits of outdoor education, with numerous researchers finding positive benefits for participants. The literatures suggest positive results in team performance in such training in outdoor program, but with inconclusive finding of quantitative and qualitative data gathered. This paper focuses on the qualitative methods used to examine the effect of outdoor education camp on group cohesion based on previous experience of the three categories of participants. The qualitative nature of this study reveals insights into effect of outdoor education through its focus on emerging themes and patterns that developed over time. Methods used was structured interviews with ex-outdoor education student (n=2), service provider in outdoor education (n=2) and private sector (n=2). Six interviews were conducted and results found that six components which cohesion, natural environment, activity, style of the program, personal and social development, and escapism have been grouped together as influencing components to influence the participants' outdoor education experience. Implications for this study provide one example of a qualitative research study of the effect of outdoor education that outlines the various methods used to conduct research in a naturalistic and interpretive setting.

Keywords: Team cohesion, outdoor education, qualitative effect

INTRODUCTION

Outdoor education is a form of experiential education that involves students in challenging outdoor experience (Hattie, Marsh, Neill, & Richards, 1997). Historically, character development, personal growth, and development of self were outcomes desire from participation in such experience (Powers, 2004). However, the impacts of outdoor education programs on participants remain a topic of much interest to practitioners and researchers.

Many investigations have explored the benefits of outdoor education, with numerous researchers finding positive benefits for participants (Bunyan, 1997; Ewert, 1983; Hattie, Marsh, Neill, & Richards, 1997; Yaffey, 1992). In addition, hundreds of empirical pre-post studies have been conducted in an attempt to better understand the impacts of outdoor education on team cohesion (Sariscany & Oslin, 1995). The rapid increase in adventure programs that utilized challenge in the outdoors as an integral and critical part of their educational method, it is worth asking about their effectiveness (Hattie, Marsh, Neill, & Richards, 1997). An examination of the typical objectives of outdoor education training programs improving leadership skills, team building, improving problem-solving skills, increasing trust, and improving communication has revealed why outdoor education training is so popular (Williams, Graham, & Baker, 2003).

Thus, aware of positive impact of outdoor education toward group cohesiveness, Reserve Officer Training Unit (ROTU), Universiti Malaya has organized rafting expedition at Terengganu River in order to gain mental toughness and increase cohesiveness among them (Azmi Malek, 2008).

Generally, in Malaysia, outdoor education camping was assumed as an activity that can promotes group or team cohesiveness (Bernama, 2004a, 2004b). In contrary, outdoors education can also resulting in numerous internal stressor (O'Connell, Potter, Curthoys, Dyment, & Cuthbertson, 2005). Study using 'meta-analysis' which is a way of combining the outcome statistics from many different studies into a single, found that outdoor education has a small to medium impact on typically measured outcomes such as changes in self-concept, self-confidence and locus of control (Neill & Richards, 1998).

Outdoor education program use experiential activities such as backpacking, rock climbing, canoeing, and other outdoor recreation activities to achieve various goals and objective (O'Connell, 2001). The objectives of an outdoor education program are to enhance cooperation, encourage more effective communication skill, build greater trust in others, increase shared decision, encourage new ways to resolve conflict, improve problem solving skills and enhance learning (Morgan, 2006). Therefore, based on the inconclusive finding, this study tries to examine the effect of outdoor education toward group cohesiveness. Outdoor orientation programs have been operating in colleges and universities in the United States since 1935, when Dartmouth College ran its first precollege trips for first-year students (Hooke, 1987, cite in Bell, Holmes, Vigneault, & Williams, 2008). In contrary, historically in Malaysia there is no documentation stated when outdoor education programs have been operated formally (Abu Bakar Sidek Mohammad Ibrahim, 2004), and also Malaysia very few in outdoor education research (Amy Anak Dusin, 2007). Over the years researchers have attempted to gather information in outdoor orientation programs (Bell, Holmes, Vigneault, & Williams, 2008). The literatures suggest positive results in team performance in such training in outdoor program, but with inconclusive finding of quantitative and qualitative data gathered (O'Bannon, 2000). Using qualitative research as a type of outdoor education program evaluation has recently gained mainstream acceptance in the field. As explained by Guion and Flowers (2002), "the narrative and contextual nature of qualitative research is excellent for assessing what can be done to address those needs given the real challenges and situations with which people are faced". In addition, employing qualitative methods is a better approach which provides an opportunity to gain new and important insight in research (Horne, 1996). Therefore this study plans to determine that does the outdoor education programmes influences to the group cohesiveness among participants. The study is also concerned with the activities that the most dominant promotes to group cohesiveness.

The purpose of the study is to understand how individuals interpret their outdoor education program experience to think and act in response to group cohesiveness. The second purpose is to identify camp elements or activities that might influence the changes of group cohesiveness. A qualitative method will be employed in order to gather the data. The impact of these results can be used as an indicator for outdoor educator in Malaysia and as useful information for university to restructure the curriculum if needed. Specifically, this study hopes to ensure these research questions:

METHODOLOGY

Research Design

Qualitative research methods were selected for the case study as qualitative methods are specifically designed and suited to studies that explore the meaning and nature of experience (Everall, 2000). Literature on outdoor education outcomes suggested that, qualitative data collection would facilitate the comparison of the relative impact of various program characteristics on program outcomes (McKenzie, 2000). Therefore, the setting of this investigation was an interview based on participant's experiences in their various outdoor education programs. Interviews in this research generated additional perspectives and insights about students' environmental learning (Stepath, 2006). To investigate the research questions, three categories of participants was chosen which the experiences of the ex-outdoor education student (n=2), service provider in outdoor education (n=2) and private sector (n=2). Each category consisted of 1 male and 1 female participant. The structured open-ended interviews were conducted using a standard set of questions to inquire into participants' experiences of outdoor education program. Question prompted answers intended to provide a mechanism for capturing the

verbal accounts of a participant's experience, and then intertwining these data into the research transcription (Bell, 2003).

Data Collection

The data collected included background information on the participants' outdoor experiences followed by the participants' past experiences while participating on the various outdoor education programs. On completion of the data collection, the participants were interviewed one by one in a quiet, out of the way setting where they could talk without being overheard or feeling they were in the way which lasted approximately 30 minutes for each interviewee. Each interview was conducted in series day on evening after working hours.

Data Analysis

Transcripts of student responses were read and sorted. No data processing program was used to analyze the scripts. The content analysis searched the text for recurring words, themes, and patterns (Patton, 2002). The data was analyzed by reading and rereading the data to search for themes and categories of responses. Codes were then created that reflected these themes and categories. The data was then examined again and coded (Lindley, 2005). Once the data was analyzed, it was used to help create an understanding of the extent of the influence of outdoor education camp on team cohesion.

RESULT AND DISUCUSSION

Six themes emerged from analysis of the data: the cohesion, natural environment, the activity, style of the program, personal and social development, and escapism.

Cohesion

Togetherness in natural environment is believes to be a factor in contributing toward team cohesion as commented by most of the participants. Farid (ex-student male) commented that, "sharing and live together as a group assists group to be more excellent". When comparing to another category of respondent, Hassan (service provider male) support the idea of togetherness in natural environment and away from family encourage independence and increase team cohesion. Hassan commented that:

"Yes I admit that outdoor education may increase team cohesion. The factors of togetherness and being independence when away from home could generate team cohesion".

Keeping social harmony and a positive group was an important goal for the participants. Respect for individual differences is seen as a factor of harmonizing the group climate as claimed by Nadia (service provider female) who stated:

"Outdoor education may increase group cohesion because of the interaction and respect of individual differences among group"

In supporting, other aspects such as enjoyments, funs, and challenges endured and considered as a part of an important factor in outdoor education which encourage group cohesion (Burridge, 2001). Feeling comfortable, enjoying the nature experience, and feeling competent to be safe and secure with nature were important to forming a positive relationship. Hammerman, Hammerman, & Hammerman, (2001) described that outdoor activity like camping could initiate closer relationship. This is due to the class environment (outdoor education), that create interactions between student-student and teacherstudent. Besides that, independent attitude could be developed when students feel more responsible towards themselves. Some research suggested outdoor education program as a 'vehicle' to strengthen social relations and interpersonal skills among participants (Garst, Scheider, & Baker, 2001). In nature's learning context, members of a group become dependent on each other. This contributes to personal growth, increased self-confidence, and an ability to trust others (Szczepanski, 2000). Group size is

thought to be an important characteristic in determining the effectiveness of an adventure education program on group cohesion. Walsh & Golins (1976, cited in, McKenzie, 2000) define the ideal sized group as a "ten-group," and as containing anywhere from 7-15 participants. The benefits of this size of a group are thought to include being large enough for diversity and conflict, and yet small enough to avoid cliques and enable conflict resolution (McKenzie, 2000).

The Natural Environment

Being out in the natural environment appeared to produce different feelings and attitudes within the participants compared with how they felt in their usual urban environment. Some of these feelings they found difficult to describe as Nadia's comment illustrates when asked how she felt about being in the outdoors and camping, she explained, "natural environment give positive impact on student's feeling toward group cohesion". The environment appeared to have a calming effect that some of the participants including Farid (ex-student male), identified as "the differences in nature of environment along program give closeness in relation because student's focus is totally concentrate on friends and activities". Natural environment is believes as an appropriate place to learn and explore about life and friendship. As stated by Hassan (service provider male), "involvement of natural environment for group cohesion is the most appropriate learning medium".

Therefore, the results show that students learn to understand their surrounding environment encompassing all living organisms (Bunyan, 1997). Placing individuals in novel and unfamiliar locations provides them with a new perspective of friendship (Haras & Lisson, 2003). Thus, unfamiliar environment can enable participants to gain new perspectives on the familiar environments from which they came (Boyle, 2002). In addition it also advocates that when individuals and wilderness are united, there is an inherent potential for personal and group transformation (Campbell, Hanna, Tice, & Meyer, 2000). Outdoor education and environment has a strong relation with group cohesion. Through the use of adventure, programs engage participants' bodies and emotions in the experience, and when conducted in the context of small groups, group activities, and 'people lives together' these outdoor adventures offer a relatively holistic body-mind-emotional social-environmental experience for participants (Pryor, Carpenter, & Townsend, 2005). Therefore, removing adventure activities from outdoor environmental education may have some unanticipated consequences (Martin, 2002). Data analysis confirmed that a positive link between group cohesion and environmental education should exist (Parkin, 1998).

The Activity

Often the difficulties or challenges of a program are the peak challenges, such as getting to the top of a mountain or navigating through a large rapid that have been incorporated into the program design. The function of adventure activities in outdoor program normally is used as a medium to encourage students to achieve group cohesion. Most of the participants were chosen team building as the most enjoyment and encouraging group cohesion activity. They claimed that element of enjoyment and happiness in each game and activity in team building make them feel close to group members. Meanwhile, for waterbased activities especially kayaking and rafting is expressed as an adventure activity which may also increase cohesion through adventure expedition in ocean or large rapid. In addition, survival also was chosen as the most valuable activity for group cohesion. As commented by Farid (ex-student male) when he was asked what activity that he feels the most encourage team cohesion, he said that:

"Based on my experience, all of the activities that I had tried encourage group cohesion. This is because we always together along the activity. However, the most meaningful activity to me was survival. In survival activity, you are assigned to live away from base camp for 36 hours in group with certain basic ration. So we learn to share, appreciate, survive and help each other while doing survival".

The physical, cognitive, social, affective, and cultural differences among group members has made it more difficult to effectively meet the needs of all participants using common, well established cooperative games, problem-solving initiatives, and high and low ropes course activities. Some individuals require a high degree of challenge to achieve the learning and growth associated with

adventure experiences (Haras & Lisson, 2003). The research indicates that a range of activities can lead to the positive outcomes typically associated with group cohesion. This suggests that it is the qualities of these and other activities that are responsible for the outcomes, rather than the activities themselves. Several of the qualities of activities that are thought to lead to program outcomes are contained within a model supported by much of the literature. In this model, the challenge involved in adventure education activities contributes to creating a state of dissonance, or constructive level of anxiety, in participants (McKenzie, 2000). As adventure education activities engage the physical domain, as this requires participants to "walk' rather than merely 'talk' their behaviors" (Garst, Scheider, & Baker, 2001). Knapp (1990) identified this as an important characteristic if greater emotional and physical risk taking is going to occur within the activity group. Watts, Webster, Morley and Cohen (1992) in their study of expedition stress found that the close social interaction of the group increased feelings of sociability, responsibility and emotional stability in the individual participants. Participants are need to use their mental, emotional, and physical resources in combination, adventure education activities to encourage concurrent mastery in all three domains (Powers, 2004).

Style of the Program

Style of the program is closely linked to leadership, as the leader has a strong influence on the nature of the program. The description indicates that how the designs of the program affect on group cohesion. Accountability of leader in providing suitable program with required objective determine successful of the program. As commented by Nurazrin (ex-student female), she believes that outdoor education my increase group cohesiveness and positive outcomes, providing that the program is appropriate with group cohesion. The participants also identified the design of the program must be in lined with the objective of the program in order to stimulate behavioral changes. Outdoor education with focusing on camping-based is identified as more effective in developing cohesiveness and positive outcomes compared to non-camping outdoor education activity. Enjoyment and fun are emphasized as important element in outdoor education. As Nadirah (corporate sector female) stated, "In my opinion, camping in outdoor education is very good. However it is depend on the design of the program. If the design of the program is good then the effect of the program will be good too. In my experience, enjoyment and fun in doing activity plays an important role in determining effect on personal and group". Meanwhile, the participant also identified the length of the program also influence the effect of the program. Iwanuddin (corporate sector male) explained:

"....the length of the program plays important roles in determining the effect of the program. If the program is design for longer duration, the effect to participants would be better".

He also address that he has had experienced outdoor education with improper program design and instructors. As a result he feels that no positive outcome from that program which is endured to participants. The leadership and style of the program provided a contrasting setting to the school and home environment, participants identified that they acted differently on the program compared to at home, being more relaxed and at ease in the program setting. Although not specifically identified by the participants, the calming effect of the environment seems likely to have played a role, encouraging reflective moments where participants may consider their own behavior and the behavior of others.

Although there are many aspects of factors that influence the effect of style of the program on team cohesion, this article will focus on instructor competency that could potentially influence program outcomes if inadequate (i.e., technical, organizational, problem-solving, and decision-making skills). The biographical characteristics of instructors are thought by some to contribute to program effectiveness. Instructor personality may also be a factor in determining program outcomes. These characteristics included: experience, not having participated in an Outward Bound course as a student, age, education, having four or more siblings, having traveled for "long periods of time," and being male (Thomas & Thomas, 2000). A lack of common understanding of agency goals or conflict over goals can seriously undermine the effectiveness of group cohesion (Carruthers & Buser, 2000). Exciting and inclusive adventure experiences require deliberate and thoughtful principle-based program design (Haras & Lisson, 2003). Different styles of outdoor education programs would possibly produce

different relationships between the program components and influences, perhaps resulting in a different set of conditions affecting the program outcomes (Burridge, 2001).

Personal and Social Development

All the participants were able to identify ways in which their thinking, outlook and or behavior had changed over the course of the program toward team cohesion. Many of the identified changes were common across the majority of the participants; it appeared to be the degree of change that varied from one person to another. A change in maturity was a common statement made by the ex-student female. This change appeared to be characterized by an increase in feelings of independence, an increased tolerance of others, an increase in the awareness of others' feelings and an increase in respect for individual differences. Some of these feelings were described as Nurazrin (ex-student female) comments when she was asked does outdoor education able to increase positive outcome. She stated:

".....maturity also can be developed because diversity in a group educates our attitude and tolerance".

Meanwhile, Nadhirah (corporate sector female) explained, changing in behavior and perception in view about something appeared to be increased after experience the program. All participants' males and females were agreed that outdoor education may contribute to personal and social development and also increase group cohesion. As Hassan (service provider male) put it, "Outdoor education is one of the methods to gain personal qualities. My self confidence to mix up with peoples has increased since I get engage in outdoor education. My interaction skill with colleagues also increased to the stage of very confident". Farid (ex-student male) emphasized that simple body language such as clap, praise or smile as appreciations when complete doing certain task is considered as valuable and encourage participants to be closer, confident and perform better. He then addressed that outdoor education may develop creativity, being a creative thinker, responsible, and always seek for new challenge.

Based on the result, it can be concluded that effective outdoor education and residential experience in particular, can lead to individual growth and improvements in students' social skills (Dillon & Brandt, 2006). Outdoor education is a holistic form of education that can assist in educating the person as a whole; academically, physically, emotionally, socially and psychologically (McLeod & Craig, 2004). Outdoor Education programs within the school curriculum are said to be of valuable assistance as they operate outside the limitations that govern traditional and formal teaching and learning in schools by aiming to promote the development of the whole person as a social and individual being, in a balanced and integrated fashion (Yaffey, 1992).

Escapism

Some of the participants view outdoor education as a method of away from the pressures and complexities of everyday life. As commented by Iwanuddin (corporate sector male):

"Outdoor education is seen as a method of releasing pressure and help to increase motivation to work. Enjoyment and fun while doing activity such as kayaking or rafting give me such a new spirit. I really feel free when go outdoor which at the same time I can know my colleague better".

The participant also claimed that they can get rid from formal working situation for temporary and feel fresh when they return to their home. Element of fun and enjoyment is being a catalyst that influence their emotional well-being toward friendship and cohesion. As commented by Nadirah (corporate sector female), "I do really satisfied with outdoor education program. To me, doing activity with my working colleagues like white water rafting can release my pressure and tension of working. I still can imagine the moment of decent the rapid with group, but I cannot explain the feeling of satisfaction and enjoyment by word."

According to the scholar, a parallel kind of escapism may also at the heart of much outdoor education. The spiritual renewal that is often claimed to flow from wilderness experiences may help people to cope with the stresses of urban life, but it is doubtful if we can expect or encourage large

numbers of people to depend on them for their sanity. An analogy can be made with the words of a former Apollo astronaut who, when asked how he would sum up what the US space program was all about, said 'It's about leaving.' In a similar way, urban Australians' imaginative obsession with landscape may be little more than a kind of escapism-an excuse for ignoring urban and suburban discontents (Gough, 1990).

CONCLUSION

The six themes that have emerged from the analysis of the data can be considered as six identifiable components of the effect of outdoor education on team cohesion being studied. Each component is a collection of specific elements that relate to the effect of outdoor education on team cohesion. By identifying the themes as components of the effect of outdoor education on team cohesion, the components can be used to explore the possible relationships that may exist between them and how these relationships may help shape the nature and character of the group cohesion being investigated.

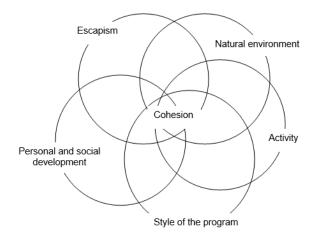


Figure 1. Interaction of the six components of the effect of outdoor education program on team cohesion.

The six components of the cohesion, natural environment, activity, style of the program, personal and social development, and escapism have been grouped together as influencing components as it is these components that appear to influence the participant's outdoor education experience. From the data analysis it appears that the influencing components work dynamically to produce a set of conditions that appear conducive for change of attitude toward group cohesion to occur in the outdoor education program participants. Figure 1 illustrates the dynamic nature of the influencing components in generating a set of conditions, which group cohesion may occur in the outdoor education participants.

Each circle in the diagram represents an influencing component. The circles overlap in the centre of the diagram. This central area of the diagram represents the combined effect of the influencing components, producing conditions that may encourage change in the group cohesion. Overlapping of the circles indicates that the influencing components do not operate in isolation. Rather, it is assumed that each influencing component affects all the other influencing components. Thus, the six influencing components appear to work in concert generating conditions where group cohesion change in the outdoor education may occur.

REFERENCES

- Abu Bakar Sidek Mohammad Ibrahim. (2004). *Pendidikan luar: Satu pendekatan (Outdoor ducation: One approach)*. Universiti Pendidikan Sultan Idris.
- Amy Anak Dusin. (2007). Program pendidikan luar dan implikasinya terhadap konsep kendiri guru pelatih (Outdoor education program and its implication towards under training teacher's self-concept). Seminar Penyelidikan Pendidikan Institut Perguruan Batu Lintang/.
- Azmi Malek. (2008, 29 October 2008). University Malaya ROTU rafting expedition (Ekspedisi berakit PALAPES UM). *Utusan Malaysia*.
- Bell, A. (2003). A narrative approach to research. *Canadian Journal of Environmental Education (CJEE)*, 8(1), 95-110.
- Bell, B. J., Holmes, M. R., Vigneault, B., & Williams, B. (2008). Student involvement: Critical concerns of outdoor orientation programs. *Journal of Experiential Education*, 30(3), 253-257.
- Bernama. (2004a). Perkhemahan integrasi wawasan untuk pupuk perpaduan pelajar (Vision intergation camping to promotes students cohesiveness): Bernama Library and Infolink Service.
- Bernama. (2004b). Perkhemahan pupuk semangat kerjasama kalangan kanak-kanak-Rosmah (Camping promotes cooperation among childrens-Rosmah): Bernama Library and Infolink Service.
- Boyle, I. T. (2002). The impact of adventure-based training on team cohesion and psychological skill development in elite sporting team. Unpublished Phd Dissertation, University of Wollonggng, Sydney.
- Bunyan, P. (1997). Developing self-esteem through adventure: Moving from theory to practice. *The Journal of Adventure Education and Outdoor Leadership*, 14(3), 7-9.
- Burridge, P. (2001). Do journey style outdoor education programs lead to change? What the participants think: Victoria University, Melbourne, Australia.
- Campbell, D. T., Hanna, J. M., Tice, A. L., & Meyer, B. B. (2000). Examining the effect of repeated exposure to a ropes course intervention: Methodological considerations. Paper presented at the Student Scientific Research Symposium, University of Winconsin.

Carruthers, C. P., & Buser, J. A. (2000). A qualitative outcomes study of boys and girl club program leader club members and parent. *Journal of Applied Sport Psychology*, 18(1).

- Dillon, J., & Brandt, C. (2006). Outdoor education: A BAI roundtable summary. London: Centre for Informal Learning and Schools.
- Everall, R. (2000). The meaning of suicide attempts by young adults. *Canadian Journal of Counselling*, 34(2), 111-152.
- Ewert, A. (1983). Outdoor adventure and self-concept: a research analysis. Eugene, Oregon: University of Oregon.
- Garst, B., Scheider, I., & Baker, D. (2001). Outdoor adventure programme participation impacts on adolescent self-perception. *Journal of Experiential Education*, 42(1).
- Gough, N. (1990). Healing the earth within us: Environmental education as cultural criticism. *Journal of Experiential Education*, 13(3).
- Guion, L. A., & Flowers, L. (2002). Using qualitative research in planning and evaluating extension programs. University of Florida IFAS Extension Fact Sheet.
- Hammerman, D., Hammerman, W., & Hammerman, E. (2001). Teaching in the outdoors (5th ed.). Illinois: Interstate Publishers inc.
- Haras, K., & Lisson, B. (2003). Designing adventure: All for one and one for all. The Ontario *Journal of Outdoor Education*. 15(1).
- Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and Outward Bound: Outof-class experiences that make a lasting difference. *Review of Educational Research*, 67(1), 43-87.
- Horne, O. B. (1996). The impact of adventure-learning experience on team development using intact teams within a large federal agency : A quantitative and qualitative analysis. Unpublished Dissertation, University of Maryland, Maryland.
- Knapp, C. E. (Ed.). (1990). Processing the adventure experience. State College: Venture Publishing.
- Lindley, B. R. (2005). The experience of wilderness experience program on students' attitude towards wilderness. Unpublished Dissertation, University of Minnesota, New York.
- Martin, P. (2002). A naturalistic inquiry into the role of outdoor education in shaping human/nature relationships. Unpublished Dissertation, La Trobe University, Bendigo.
- McKenzie, M. D. (2000). How are adventure education program outcomes achieved?: A review of literature. Australian Journal of Outdoor Education, 5(1), 19-26.
- McLeod, B., & Craig, S. A. (2004). An evaluation of an experiential learning and outdoor education school program on the life effectiveness skills of middle school boys: Australian Catholic University.

Morgan, V. A. (2006). Outdoor education team-building and the college adjustment and persistence of freshman in learning communities. Unpublished Phd Dissertation, Florida International University, Miami.

- Neill, & Richards, G. E. (1998). Does outdoor education really works? A summary of recent meta-analyses. *Australian Journal of Outdoor Education*, 3(1).
- O'Bannon, P. M. (2000). The effect of the outdoor experiential rope course on perceived team performance. Unpublished Phd dissertation, Florida International University, Miami, Florida.
- O'Connell, T. S. (2001). Self-concept: A study of outdoor adventure education with adolescent. Unpublished Phd Thesis, New York University, New York.
- O'Connell, T. S., Potter, T. G., Curthoys, L. P., Dyment, J. E., & Cuthbertson, B. (2005). A call for sustainability education in post-secondary outdoor recreation programs. International Journal of Sustainability in Higher Education, 6(1).
- Parkin, D. (1998). Is outdoor education environmental education? International Journal of Environmental Education, 17(3).
- Patton, M. Q. (2002). Qualitative research and evaluation methods. (3rd ed.). Thousand Oak: CA: Sage.
- Powers, D. L. (2004). The effect of outdoor education programon life effectiveness skillsof participants. Unpublished Master Thesis, California State University, Long Beach.
- Pryor, A., Carpenter, C., & Townsend, M. (2005). Outdoor education and bush adventure therapy: A socioecological approach to health and wellbeing. *Australian Journal of Outdoor Education*, 9(1).
- Sariscany, M. J., & Oslin, J. (1995, March). Influence of a sixth grade outdoor education camp on student's selfperception. Supplement, 45, A-68.
- Stepath, C. M. (2006, July 20). Reefs and learning: Education evaluation techniques. Paper presented at the National Marine Education Association Conference (NMEA 2006), New York City.
- Szczepanski, A. (2000). What is outdoor education? The didactic implications of learning on the context of landscape. Paper presented at the Fourth European Congress for Outdoor Adventure Education and Experiential Learning, Rimforsa, Sweden.
- Thomas, G., & Thomas, J. (2000). Moving water paddling as critical outdoor education. *Australian Journal of Outdoor Education*, 5(1).
- Watts, F. N., Webster, S. M., Morley, C. J., & Cohen, J. (1992). Expedition stress and personality change. *British Journal of Psychology*, 83.
- Williams, S. D., Graham, T. S., & Baker, B. (2003). Evaluating outdoor experiential training for leadership and team building. *Journal of Management Development*, 22(1).
- Yaffey, D. (1992). Personal growth and the outdoor experience: some empirical evidence. *The Journal of* Adventure Education and Outdoor Leadership, 9(1), 31-34.

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