



RESEARCH PAPER

The Influence of a Five-Day Adventure-based Experience on International Students' Perceptions of Self-Effectiveness: A Case Study

Dr. Yaar Muhammad ¹ Dr. Sajid Masood ² Dr. Faisal Anis ³

1. Assistant Professor, Department of Education, University of Management and Technology, Lahore, Punjab, Pakistan
2. Assistant Professor, Department of Education, University of Management and Technology, Lahore, Punjab, Pakistan
3. Assistant Professor, Department of Education, University of Management and Technology, Lahore, Punjab, Pakistan

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**Corresponding
Author**

Yaar.muhamma
d@umt.edu.pk

ABSTRACT

The purpose of this study was to investigate the influence of a five-day adventure-based experience on international students' perceptions of life effectiveness and to determine the perceived changes qualitatively in the eight dimensions of life effectiveness. This study used a case study research design and examined the perceptions and experiences of sixteen students of Master's in Outdoor Education at a Swedish university. Participants were interviewed after two weeks. After approximately one and a half months, two focus groups were conducted with the participants. The study concluded that a five-day adventure-based experience had little effect on international students' self-perceptions of personal capabilities and qualities. The factors identified were poor planning and the presence of already skillful and self-efficacious persons and multicultural groups. However, it was identified that cultural factors might have contributed to some of the international students' perceptions of their self-effectiveness. Cultural identities may have worked as a powerful filter through which the adventure-based experience was interpreted

Introduction

Most of the research literature around adventure education program experiences have supported the view that they contribute to positive developmental outcomes such as teamwork, trust, self-efficacy, increased self-confidence, and overall life effectiveness (Hodgson & Berry, 2011; Shellman & Ewert, 2010; Sibthorp & Arthur-Banning, 2004). For example, Neill (2005) is of the view that enhancing life effectiveness is currently a common goal of outdoor education programs. By the notion of "life effectiveness," he means that "a person's capacity to adapt, survive,

and thrive; that is, it refers to how well one is equipped to handle the demands of life" (Neill, 2008a, p. 47). This construct is closely related to the notion of self-efficacy, personal competence, personal skills, life fitness, and practical intelligence (Neill, 2008b).

It is generally argued that the adventure programs – carefully designed after keeping the university environment in focus and paying due consideration to ways to maximize participants' connections to one another – can have a powerful, positive influence on students' lives in higher education and even after graduation (Gass, Garvey, & Sugerman, 2003). In addition, it is claimed that outdoor experiences can contribute to rehabilitation programs for juvenile male offenders. For instance, Bruyere (2002) draws on theories that address the developmental needs of adolescent males and theories and research that tries to explain why youth engage in delinquency and presents suggestions concerning realistic and appropriate outcomes around which outdoor programs can be designed to solve the behavior problems of young male offenders.

On the other hand, we find severe criticism of this approach to evaluating the effects of outdoor adventure programs. For instance, Haluza-Delay (2001) considers this kind of research as more "deterministic" and having a "dominant behaviorist slant to research" focusing only on how the program effects change within an individual" (p. 2). Quite caricaturing this approach, Festeu (2002) points out that: "The common design starts from the assumption that participants lack, for example, self-confidence. The research commences with measuring this trait at the beginning of a series of outdoor activities (p. 43). He further adds that "after completion of the activity, the participants are assessed again, and then the initial and final results are compared" (p. 43). He criticizes this further that "Most of the time, positive changes appear to have occurred, and therefore, the reader should understand that outdoor activities are to be employed to increase one's self-confidence" (p. 43).

Literature highlights the association of this approach to adventure-based programs with neo-Hahnian discourse. For instance, Rea (2008) asserts that this approach is the result of dominant and powerful discourses, which are the product of neo-Hahnian discourse based on the assumption that engagement in outdoor programs positively influences character traits. Moreover, he is of the view that the idea of self-effectiveness has "influenced both practice and research in outdoor adventure education, and this has led to a concentration of research that focuses on the impact of outdoor programs" (p. 43). He further argues that this has resulted in "the objectivization of outcomes and the essentializing of participant responses" (p. 43). In addition, Brookes (2003) warns that it is a potential source of bias in the research studies which uncritically refer to the legacy of Kurt Hahn and character-building.

Reviewing the present state of the research on the effectiveness of outdoor adventure programs, McKenzie (2000a) claims that "current understanding of how adventure education program outcomes are achieved is based largely on theory,

rather than on empirical research" (p. 19). Secondly, there is little empirical outdoor education research exploring "self" outcomes with respect to individual differences. Furthermore, there is a relatively unexplored but potentially important area as to how cultural differences influence the effectiveness of an adventure-based experience (Purdie & Neill, 1999). In the age of globalization, with the increased enrolment of the non-western students to western outdoor education university programs, this is of particular relevance.

Research Using Life Effectiveness Questionnaire

Richards, Ellis, and Neill(2002) believe that effectiveness in life - at school, home, or work is perhaps the primary concern for all individuals, but they assert that it is not just a matter of self-concept social or physical skill that determines effectiveness. Indeed, it comprises of many dimensions.

Neill(2000b) developed the Life Effective Questionnaire, which is a self-report instrument for measuring the effects of adventure and other experiential education intervention programs. Many studies have utilized this instrument and showed a varied and mixed type of outcomes, and it is observed that long programs with motivated adults are the most effective, and also some adventure education has stronger effects in some areas of life effectiveness as compared to others (Neill, 2000b). Moreover, Neill(2000b)claims that the life effectiveness benefits of adventure education programs appear to be maintained, on average, for at least five months with considerable benefits still evident at twelve months.

Neill's doctoral work on 'life effectiveness' outcomes for participants in Outward Bound and other outdoor education programs reported that the most positive outcome was in the area of time management and strong gains self-confidence, social competence, emotional control, and task leadership. In addition to this, less impressive, but still positive gains were found for participants' initiative-taking, motivation to achieve, and actively getting involved(Neill, 1999).

In another study, he analyzed longitudinal life effectiveness data from over 3,000 participants in programs ranging from 2 to 26 days, modeling the sources of variance in personal development outcomes that could be attributed to individual, group,or program variables and suggested that more extended programs and programs with adults tended to have larger impacts (Neill 1999).Still in another study, Neill conducted research(2000a)to provide an independent evaluation of the impact of Outward Bound Australia programs on young adults whose participation was sponsored by the Colonial Foundation and found a large, statistically significant boost in all areas of life effectiveness.Using LEQ, Neill (2002) examined an undergraduate class of 37 American outdoor education students involved in a one-day "Mystery Adventure" based on a holistic wave theory model, in the context of the Outward Bound program design in the Czech Republic and concluded that the Mystery Adventure was a reasonably successful application of the Wave Theory of experiential education.

Working with the same questionnaire, Terry (2002) investigated whether the benefits from a one-day adventure course could be prolonged through the use of bi-weekly journaling after the course, and the results indicated that the intervention was not successful; the journaling did not serve to enhance the effects from an adventure course. Doherty(2003) administered a pre and post-test of the 29 item Life Effectiveness Questionnaire-I to participants of a high-ropes challenge course, and the initiatives challenge course to assess the effects of the adventure experience and showed an overall 'below average' effect. Typical three-day adventure-based residential outdoor education program organized by schools and the Effect Size of this study was found to be similar to the size of changes reported in the findings of previous meta-analytic studies (Ho, 2003)

However, another study that investigated the effects of a public school system's one day adventure experience on students' self-reports of life effectiveness, the total LEQ-H score was significantly different, and three sub-scales, time management, emotional control, and task leadership, showed significant differences (Eagle, Gordon, & Lewis, 2005). Using LEQ as a tool to measure the effectiveness of the outdoor program, Khamis(2009) was able to examine the effect of the outdoor education module on the social and emotional learning and personal skills of the students(Khamis, 2009).

Recently, Prince (2020) has examined evidence from four retrospective empirical research studies using systematic review of datasets and published papers and found that outdoor residential experiences had lasting impacts (>12 months) on young people. The participants of the studies identified impact on life skills, confidence, teamwork, intrapersonal skills, and taking initiatives dimensions of the life effectiveness

This review of the research using the Life Effectiveness Questionnaire demonstrates the obviously employed methodology is quantitative in nature, and there is a lack or scarcity of research using additional insight from qualitative methods. Taking insight from McKenzie(2000b), we argue that in order to get more comprehensive information on how the various features of a program are influencing the outcomes experienced by participants, it may be preferably better to get information directly from participants, instructors, and researcher observation.

In this background, this study aims to empirically investigate the influence of a five-day adventure-based experience on international students' perceptions of life effectiveness and to determine the changes qualitatively in the eight dimensions of life effectiveness.

Outdoor Environmental Education at Linköping University

This case study focused on the international students of the outdoor environmental education Master's program of Linköping University Sweden, an innovative and modern institution founded in the 1970s. The main aim of this

program is to illustrate to the students the capacity of outdoor environmental education so that they can become aware of sustainable development, environmental health, and citizenship and ultimately contribute to these areas as active participants (Karlsson, 2010; LIU, 2020). It also has an emphasis on personal as well as social development so that good outdoor education leaders can be nurtured (Kätting & Alsegård, 2009; LIU, 2020). The main focus is on experiential learning based on society, culture, and nature in addition to indoor lectures. Teaching also incorporates out-of-doors field-related experiences; thus, learning occurs in and through cultural and natural landscapes (Karlsson, 2010; LIU, 2020).

One of the outdoor activities of this program is related to an adventure-based trip to Åre, Northern Europe's largest and renowned ski resort in Jämtland, Sweden. It is located approximately 80 km from the city of Östersund with skiing and a wide variety of activities to suit every possible level of skill preference. These activities encompass ice fishing, dog sledding, snowboarding, action-filled alpine skiing, or peaceful cross country skiing. This five-day adventure-based activity was organized on some broader themes such as outdoor education, nature and culture, winter practice, and a short introduction to the cultural history of Sweden. The aim was to work in a lot of different ways with snow and ice, such as skiing, observing Sami culture, planning and conducting outdoor lessons, building snow caves, and sleeping outdoors, but most of the time was dedicated to the learning and development of the skiing skill.

Material and Methods

A case study research design was used since it provided the flexibility of using multiple sources of qualitative data, and since it offered a sampling technique that allowed us to choose cases because they illustrated some features or processes in which we were interested (Merriam & Tisdell, 2016). The case study is valuable in investigating a "contemporary phenomenon within its real-life context, especially when the boundaries between the object of study and context are not clearly evident" (Yin, 2009, pp. 13-14). Stark and Torrance (2005) believe that the case study's major strength is that it takes a social phenomenon and uses multiple data sources and methods to explore it in depth. As a result, a detailed description of the social phenomenon can be produced, and the representation of the participants' perceptions is ensured (Yin, 2018).

In this study, two different methods of data collection were used to collect data: Semi-structured interviews and focus group discussions. The eight dimensions of Life Effectiveness (Neill, 2006b) were used to develop an interview guide and topics for focus group discussions to obtain qualitative data from a group of outdoor education students in a Swedish university. The Life Effectiveness covers the following eight dimensions of Life Effectiveness: achievement motivation, active initiative, emotional control, intellectual flexibility, self-confidence, social competence, task leadership, and time management (Neill, 2006b). These dimensions

of Life Effectiveness measures typically targeted goals of a psychosocial intervention program. It was designed under the influence of self-concept, self-efficacy, and coping theory, and it focuses on measuring the extent to which a person's actions/behavior/feelings are effective in managing and succeeding at life, or more specifically, generic life skills.

A pilot interview was conducted with one of the participants in order to test the reliability of the questions, and although the questions were semi-structured and there was quite flexibility in asking the questions, it was found that the language of some of the questions was vague or too general. In light of this experience, the first researcher corrected the interview questions and made them more specific. Later, semi-structured in-depth interviews (Brinkmann & Kvale, 2018; Seidman, 2019) were conducted with the participants after two weeks of the adventure-based experience, and each interview lasted for about 20-25 minutes. As all interviews were recorded, they were transcribed and coded with the help of *Nvivo*, the qualitative data management and analysis software. Later on, after approximately one and a half months, two focus groups were conducted in order to get further insight into the findings of earlier interviews and to saturate the categories (Caillaud & Flick, 2017). The themes used in the interview-guide were used as topics for discussion with participants.

Computer-Assisted Qualitative Data Analysis using NVivo 12 was used to manage the data and to support data analysis. The five-stage framework approach (Ritchie & Spencer, 1994) was found to be more detailed and systematic and was, therefore, the primary approach used in this project. NVivo 12 was used to ensure rigor and transparency in the analysis processes, without compromising creative and reflective analysis. The five key stages to qualitative data analysis involved in 'Framework Analysis' are familiarization, identifying a thematic framework, indexing, charting, and mapping and interpretation (Ritchie & Spencer, 1994).

All who were interviewed were fully informed about the purpose of the research and the consequences for them of taking part. Moreover, we were fully aware that interviews provide information from a variety of perspectives and offer insight into respondents' memories and descriptions of current problems and aspirations (Stark & Torrance, 2005). However, since there are the presumed power, social status and knowledge of the researcher and agenda of concerns which lead to the symbolic violence, the first researcher adopted the pose of the listener in a way that paralleled the language and manners of the interviewee and did not try to impose or objectivize the person who was invited to speak (Barbour & Schostak, 2005). In addition, all responses of the participants were anonymized in order to protect the identity of the participants and ensure confidentiality in the research study.

Findings

In this section, we report findings of the analysis of interviews as well as focus groups. The coding was done on the nodes specified on the basis of the dimensions of Life Effectiveness. Based on the framework analysis, broad inter-related themes related to students' Life Effectiveness are presented. Each broad theme with corresponding themes is presented and explained below, along with anonymized interview quotes to illustrate students' perceptions in relation to the dimensions of Life Effectiveness. Further clarification of the findings is provided by considering and drawing on theoretical perspectives and previous empirical research studies conducted using the Life Effectiveness construct in measuring the influence of adventure-based experience on participants' perceptions.

Achievement motivation. Neill, Marsh, and Richards (2003) defines achievement motivation as "the extent to which the individual is motivated to achieve excellence and put the required effort into action to attain it" (p. 25). The coded data revealed an overall increase in the perceived motivation to achieve goals in life. Some participants expressed a mild change in their perceived motivation, whereas others linking it to their accomplishments during the adventure experience, quite emphatically showed their belief that they can now face any challenges in life. However, a few perceived that it had no effect or very little as they had been already motivated.

"Before the expedition, my motivation was low, but I think now it is high."

"I always set goals; I have always been an achiever...Maybe this trip has given me some more goals."

"When I will face challenges in life, I will say to myself, you had challenges before, and you overcome them, what else you can't do. Don't be afraid."

"I have got more confidence in my abilities, so I am more motivated now."

"In the past, I did not believe, you can force your body to do more...but this time, I really made it."

To sum up, there is much evidence to claim that the impact of this adventure trip in the dimension of motivation to achieve goals in the future was quite significant.

Active initiative. Most of the respondents believed that the adventure-based experience had "little" or "very little" impact on them on the premise that there were no or not many activities there enabling them to demonstrate initiative. The active initiative is understood here as "the extent to which the individual likes to initiate action in new situations" (Neill et al., 2003, p. 25). They believed that outdoor education is not meant to take the initiative; instead, it places more emphasis upon teamwork. They expressed their beliefs that we have "to take care of all" in the

group, and there was little room for active initiative. But few of them thought that they had got a lot through the various challenges. For instance:

“Now, I can take the initiative of teaching others on to ski.”

“Yes, definitely! Cross country skiing, sleeping in the snow caves - everything is a challenge. I have done everything, so in the future, every new challenge will not be a problem for me.”

“Yes, I will take the initiative if it is safe.”

“There was no activity for the individual initiative, but group initiative was there when our leader was sick.”

We may conclude that adventure-based experience had little effect as it is inferred from the above discussion.

Emotional control. Neill et al. (2003) asserts that emotional control is “the extent to which the individual perceives he/she maintains emotional control when he/she is faced with potentially stressful situations” (p. 25). When asked if this adventure-based experience have any effect on you in controlling emotions, all the answers were quite similar to the following ones:

“I believe, this ability I have developed over the years...It tested my abilities. but this one trip has no effect on how I behave.”

“We are quite good at controlling emotions. We don’t express our feelings.”

“I don’t think it has any effect.”

“Not that much!”

Thus, I can conclude that it has no or very little effect on the participants’ perceived ability to control emotions effectively.

Intellectual flexibility. Neill et al. (2003) defines intellectual flexibility as “the extent to which the individual perceives he/she can adapt his/her thinking and accommodate new information from changing conditions and different perspectives (p. 25). Most of the respondents expressed that they did not think they had changed in this dimension of life effectiveness, and they held the view that a five-day adventure-based experience is not enough to change a person’s ability to adapt thinking and adjust views on the views of others.

“I don’t think it has a very big effect. It is just a five-day trip.”

“I think how I react to different ideas, and different views are my own, I have developed in years and years. Yeah, it wasn’t changed.”

However, a few articulated that they felt a change, especially they had got an awareness of doing outdoor activities in a multicultural environment. As it was a multicultural and multinational group, and as, sometimes, the same thing is done differently in different cultures, the difference of opinion and dispute on trivial things could arise, and it did arise.

“Yes, at one time, I had a problem with my group members on the evaluation of multiple-choice questions in which they had a different point of view from mine, but I just decided to accept their view.”

“Yes, I learned a lot about cultural differences...and how to persuade others even in the presence of this cultural thing.”

From the above discussion, we infer that it did not change them as reported by many, but some got an awareness of various aspects of intellectual flexibility.

Self-confidence. “The degree of confidence the individual has in his/her abilities and the success of their actions” (p. 25) according to Neill et al. (2003) represent self-confidence. Most of the participants stated that they did not think they were able to learn or get self-confidence. The following comments echo this theme.

“Tried previous skills.”

“Aimless, got nothing, no, no effect!”

“But some expressed that they learned self-confidence in doing certain tasks and not in all portions of daily life.”

“Now, I think I have some self-confidence in working in a group.”

“Yes, confidence in skiing but not in other things.”

Social competence. It is “the degree of personal confidence and self-perceived ability in social interactions” (Neill et al., 2003, p. 25). Coded data revealed that this aspect of life effectiveness was perceived by the participants as affected in a positive way. All the participants consistently expressed that they felt they were closer to others this time.

One of the respondents learned that in order “to live with people, we have to overlook some of their weaknesses.” Echoing the same learned lesson, another expressed, “If you are in a group, you have to express yourself, and you have to listen to others.” Another respondent, reasoning for this development, said that it was the challenging nature of the experience, which brought the group closer. She further added that cross country skiing for the first time in their life brought many people together and made them competent at social interactions.

Task leadership. “The extent to which the individual perceives he/she can lead other people effectively when a task needs to be done, and productivity is the primary requirement” (Neill et al., 2003, p. 25). Neill (2006) represents the task leadership dimension of the life effectiveness. Several themes emerged from this aspect of coded data. Most of the participants were of the view that they were already good task leaders, and they expressed quite emphatically that this adventure-based experience of Åre had no effect on “how they behave as a task leader.” One participant did not see any activity specifically designed to enhance the leadership quality. Still another articulated, “everybody acted as a leader as well as participant, and I don’t feel that this Åre trip has made a change in how I act as a leader or as a participant.”

On the other hand, there were a few participants who stated that although this experience had not totally transformed them, there’re some aspects in which they felt they could more confidently say that they could lead others successfully. For instance, one participant said, “in the building of Igloos, now I can be a better task leader.” However, another participant expressed that she could not think of any leadership experience there, but she learned one thing, and that is “how to motivate others to do things.”

In conclusion, the adventure-based experience had little effect on enhancing the perceived ability of the task leadership because few of them expressed that they felt a change in some facet of this dimension of life effectiveness.

Time management. Neill et al. (2003, p. 25) defines time-management as “the extent that an individual perceives that he/she makes optimum use of time” (Neill, 2006). When asked whether this adventure experience impacted their ability to manage time effectively, the response was almost consistent that this trip did not help them develop or enhance the ability to time management skills. They emphatically expressed that they were already good at this skill. Seeing some mismanagement of time-related to transport and logistics in the Åre trip, they felt that it was poorly planned and poorly organized, and they were unable to get any worthwhile experience that could enhance this time.

Moreover, they articulated that learning this skill, which the researcher was investigating, is not a work of five-day experience. They expressed their belief that it’s a skill which is developed over the years and years and could not be modified through an experience of short duration comprising of just a few days. Moreover, they expressed that it would be remembered by them when they would themselves be outdoor leaders. They would plan things keeping all unanticipated factors in their minds.

“I am a lot better at managing time.”

“I am pretty good at time management.”

"I don't know it has an impact on my time management."

"Yes, as a bad example."

"No, I really feel, it was badly planned and badly organized, and there was nothing I could get from it."

"We did move from one activity straight to the next. I also learned about the aspect of punctuality."

In a nutshell, this adventure-based experience had very little effect on the participants' perceived ability to manage time effectively.

Discussion

Neill (as cited in Ho, 2003) explains the key features that may contribute to the medium effect: Firstly, the challenge program is challenging and demanding for participants. Secondly, duration plays a significant role, usually 3 to 4 weeks in length. Thirdly, participants are mostly well motivated. Fourthly, it is designed on psychological and education theory. Fifthly, it emphasizes physical, social, intellectual, and emotional development; and lastly, it is designed on research and evaluation.

Many explanations can be given for the results if we evaluate the present study on the above criteria. Firstly, the nature of the adventure-based experience and whether it was difficult and demanding for participants or not play a significant role in the effectiveness of the program. The nature of this program was not much challenging. Most of the interviews revealed this fact. Since it was not a homogenous group, some have been through this type of experience many times, whereas others, who though had been in outdoor programs many times, tried skiing for the first time in life. Since participants represented a demographically diverse group of individuals and since "some people have scientific, logical minds, while others are more sensitively attuned to beauty and harmony; and still others are moved most deeply by the eternal philosophical truths" (Cornell, 1979, p. 9), this factor might have contributed to low-level results.

Braund and Reiss (2004) point out that "our culture and society and the ways in which we have been brought up impose a set of social norms which set expectations and give rise to rules about how we behave in different situations" (p. 8). Moreover, Beames and Brown (2005) are of the view that there is considerable incongruence between the norms of western experiential education and the norms of traditional Chinese culture, basing their argument on the ground that generally, Chinese do not want to expose themselves and priority is always given to the maintenance of harmonious relationships and open conflict between group-members is usually avoided. They claim that this "embedded cultural trait is incongruous with outdoor education approaches that ask participants to share their feelings" (p.

75). As participants belonged to an international group, and the majority were from Chinese and eastern cultures, the culture factor may have contributed to the low effect size results.

The motivation level can be different as this trip was part of the Master's program and participants' attendance was compulsory. This factor might have influenced the results because, in the current LEQ database, the adult-age participants tend to be voluntary participants (Ho, 2003), whereas, for these university students, the program was compulsory. This fact is evident from research in this area which has demonstrated that external regulation negatively predicted self-reported satisfaction whereas intrinsic motivation positively predicted participants' satisfaction levels of the course" (Wang, Ang, Teo-Koh, & Kahlid, 2004)

The program was shorter in length, only five days, compared to adult-age programs, which usually tend to be longer. Bruyere (2002) points out that "a week or a month in the outdoors might provide an effective environment in which the process of change begins, but may not provide sufficient time and depth needed for new behaviors to become a habit" (p. 211).

There was evidence that the program was designed on psychological and education theory; the emphasis was on physical, social, intellectual, and emotional development, and it was based on research and evaluation. However, this 5-day adventure-based activity was organized specifically on some broader themes such as outdoor education, winter practice, short history, nature, and culture. The aim was to learn and develop skiing skills. Therefore, it can be inferred that this was not purposely designed to enhance life effectiveness; this factor might have played a role in low-level results.

Conclusion

Although this study is unable to report any significant changes in the life effectiveness of the participants of a five-day adventure-based experience, yet the researcher believes that the result of this study provides additional insight into the research literature on the Life Effectiveness construct and, ultimately, into a better understanding of benefits of adventure education. As evident from the above section, this study shows some new ways and new dimensions to the research, which can be explored in the future.

It can be concluded that a five-day adventure-based experience had a small influence on participants' self-perceptions of personal capabilities and qualities. The findings are little less than the average outcome for psychological training due to many factors, namely poor planning, sickness of the outdoor leaders, a multicultural group, and the presence of already skillful and self-effective persons in the group. These findings are contrary to the widely held belief that outdoor experience is authentic and are in line with the findings of Ho (2003), which challenged the

inherent belief that 3-day adventure-based programs can have an effect on the enhancement of life.

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