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Effects of Residential Outdoor Education (ROE) Camp on Group Cohesion Among First Year Teacher Trainees

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Abstract

The study seeks to investigate the effect of Residential Outdoor Education (ROE) camp toward group cohesion on the first year undergraduate teacher trainees from Universiti Pendidikan Sultan Idris, Perak, Malaysia. A pre-test and post-test approach with the non-equivalent control group was utilised among 142 (n=142) first-year undergraduate students (aged between 18-25 years old). Modified versions of the Group Environment Questionnaire (GEQ) questionnaire were applied to gather data from pre and post-test. As a result, the experimental group had greater perceptions of group cohesion (both social and task cohesion) after the experience of ROE camp. Besides, it was significant that the mean scores for GI-S were slightly increased and above the midpoint of the scale and the standard deviations were relatively small in comparison to the respective means.

Keywords: Group Cohesion, Residential Outdoor Education (Roe), Group Environmental Questionnaire (Geq), Teacher Trainees.

Introduction

The term outdoor education begins in the early 1940s to refer to the teaching and learning that use natural and built areas to achieve student learning outcome in a variety of subject-matter disciplines through the wide range of experiences (Lodhi, Shakir, Hussain, & Abid, 2017). Furthermore, to achieve the outcomes, a variety of contextual learning involves field trips, day trips, journeys and doing field studies can be conducted. In Malaysia, outdoor education has recently been the subject of attention from the Ministry of Higher Education of Malaysia due to implementation of the Malaysian Higher Education's Blueprint 2015-2025 (Ministry of Education, 2015). The focus of the shift is aimed at preparing the country's tertiary education system to meet the challenges of the future. According to the blueprint strategy, Malaysian students are expected to be not only highly knowledgeable in whatever courses they take but also uphold good moral values in their daily lives. Moreover, for a

tertiary educational institution that related to producing teacher as teachers are the change implementers who are closest to the students (Kareem & Kin, 2018).

In Malaysian tertiary education system, outdoor education is a term used to embrace different types of activities undertaken by undergraduate students in a range of different contexts including outdoor and indoor activities as the co-curricular or compulsory course to fulfil their coursework requirement (Yasim, Aziz, Md Taff, & Zakaria, 2018). The outdoor education activities represent a necessary ambient that generates and stimulates the formation and expression of behaviours apt to capitalize to the maximum the talents, skills and human values (Elena, 2016) as the main foci of outdoor education is to cultivate environmental education, adventure education and personal and social development (Gilbertson, Bates, McLaughlin, & Ewert, 2006). One of the most popular activities in outdoor education is residential outdoor education (ROE) camping (James & Williams, 2017).

ROE at higher institution encompasses a wide range of opportunities for student development (Bell, Holmes, Vigneault, & Williams, 2008) currently. The main goal of these generally focuses on students' group cohesion, leadership, self-esteem, character development and their personal and social development (Jostad, Sibthorp, & Paisley, 2013). Moreover, outdoor teaching activities are giving the students a creative experience in a natural environment to increase their ecological literacy and awareness (Tas & Gulen, 2019). Therefore, these programs are typically expected to gain knowledge or skills permanently through outdoor education. In addition to these goals, it is intended to achieve some gains in the group established with friends. For example, they are learning to work together harmoniously while having fun, applying cooperative strategies and techniques, learning to share roles and responsibilities, time and risk management in a multivariate and unknown environment, discovering new thinking and communicating methods, understanding the importance of personal differences and learning to work efficiently under intense stress (Yasim et al., 2018).

The scope of outdoor education consists of a program of activities planned and prepared with care by instructor and facilitator who used to environment, nature and direct experience in the teaching and learning process. It involves the process of learning by doing. All disciplines, knowledge and experience will be obtained directly with the concept of 'hands-on' or 'first-hand experience'. All curriculum content can be enriched and developed through experience gained through these activities (Yildirim & Akamca, 2017). In addition to that, the learning process centred on the direct experience, learning progressed by participants is faster and more effective. Accordingly, the influence of knowledge and experience could be preserved longer. Dewey (1938) stated that experience is significant to develop the knowledge and to enrich the process of socialization. Understanding and appreciation of a concept are more effective when learned through direct experience and behaviour. In contrast, some researchers argued and found contradictory results that ROE camp could be significantly influenced by the group cohesion (e.g. Bjorklund & Bering, 2008; Lane, 2008).

Therefore, amidst all of the inconclusive findings, this research seeks to answer the issue of the effectiveness of ROE camp on group cohesion among first year undergraduate teacher trainees in Sultan Idris Education University.

The general objective of this study is to examine the influence of residential outdoor education (ROE) camp on group cohesion among outdoor education students from Sultan Idris Education University. More specifically, the objectives of this study are to determine the

short-term effects of ROE camp towards teacher trainees' group cohesion. To formulate the reasonable answer to the research objective, the researcher formulates the following of research hypothesis based on the general objective. The research hypothesis formulate, does ROE camp effectively improve the Sultan Idris Education University teacher trainees' group cohesion?

Literature

One of the trends in the field of outdoor education is a need for evaluation of programmes' effectiveness (Attarian, 2001; Bobilya, Holman, Lindley, & McAvoy, 2010; Johnson, 2012). Several groups are increasingly interested in having programmes outcomes measured through evidence-based evaluation (Sibthorp, 2009). Since outdoor education is claimed as a powerful medium for the learning process to achieve the objective of Shift 1 in the Malaysian Higher Education's Bluprint 2015-2025 many ROE camps, have been conducted to take the challenge through formal and informal programs. However, the effectiveness of outdoor education in improving group cohesion not remained longer and criticized by many researchers (Boulware, Forgey, & Martin, 2003). There are various studies radically questioned such influences by requesting for empirical pieces of evidence rather than only assuming such positive outcomes. Bogner (2002), for instance, judged any demonstrable positive effects of outdoor education camp as ill-founded. Nevertheless, the shreds of evidence supporting the positive impacts of the outdoor experience are often incomplete, anecdotal, and based on studies involving small and restricted populations. This lack of sufficient and rigorously derived data has been particularly evident in the case of the impacts of outdoor education camp on group cohesion (Cumming & Corney, 1987).

Besides, this is the first study that explores the impact of outdoor education on group cohesion in UPSI education settings and thus could form the basis for a future longitudinal study. Therefore, this research will be a unique contribution to the growing body of literature on outdoor education camp and learning communities in higher education in Malaysia in proving the effects of ROE camp on group cohesion. Furthermore, to better understand the effects of group cohesion within outdoor education at the Teacher Education Institute of Malaysia, empirical research is needed.

Methodology

This descriptive study using a quasi-experimental design to answer the research question of the effects of ROE camp has on group cohesion. The present study has utilised a pre and post-test with a control group (Baumgartner & Hensley, 2006) to investigate the impact of ROE camp on group cohesion. Data for this study were collected from undergraduate teacher trainees from the Sultan Idris Education University of Malaysia through the Group Environmental Questionnaire (GEQ) instrument. Furthermore, the study sample consisted of 142 (n=142) first-year undergraduate students (aged between 18-25 years old). Intact classes were used as 62 (n=62) students (Physical Education Programme) formed the experimental group (participate in outdoor education camp), whereas the other 80 (n=80) act as the control group (Rehabilitation and Coaching Programme). The pre-test was administered before the ROE and followed by the post-test after 14 days of ROE camp.

Result

Data from a Paired Sample t-test analysis (pre and post-test) for short term revealed that the ROE camp in this study was not having a statistically significant effect on the improvement of group cohesion of the experimental group. The results of the statistical analysis showed that the mean pre-test scores of ATG-S, ATG-T, GI-T, and GI-S of the experimental group were 7.41 (*SD* = 1.11), 7.67 (*SD* = 1.21), 7.25 (*SD* = 1.35), and 7.52 (*SD* = 1.20), respectively. For the alike subscales, the post-test scores were 7.65 (*SD* = 1.08), 8.01 (*SD* = 1.26), 7.51 (*SD* = 1.13), and 7.85 (*SD* = 1.06), respectively.

Table 1 Scores Mean and Standard Deviation of GEQ Subscales of the Experimental Group

Experimental group		N	Mean	Std. Deviation
ATG-S	Pre	61	7.41	1.11
	Post	61	7.65	1.08
ATG-T	Pre	61	7.67	1.21
	Post	61	8.01	1.26
GI-S	Pre	61	7.25	1.35
	Post	61	7.51	1.13
GI-T	Pre	61	7.52	1.20
	Post	61	7.85	1.06

Table 2 Result of Paired Sample T-Test For The Pre And Post-Test GEQ Scores of The Experimental Group.

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	SD	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
ATG-T	Pre - Post	-.24000	.91006	.11749	-.47509	-.00491	-2.043	59	.046*
ATG-S	Pre - Post	-.41102	1.16778	.15203	-.71534	-.10669	-2.703	58	.009*
GI-S	Pre - Post	-.25833	1.27805	.16500	-.58849	.07182	-1.566	59	.123
GI-T	Pre - Post	-.33333	1.13894	.14704	-.62755	-.03911	-2.267	59	.027*

*p<.05

For the experimental group, the results of the analysis showed that the mean differences between the pre-test and post-test scores of ATG-T (t(59) = 2.04, p = .046), ATG-S (t(58) = 2.70, p = .009), and GI-T (t(59) = 2.27, p = .027) were significant. In contrast, no such significant difference was observed for the GI-S subscale, (t(59) = 1.57, p = .123). As such, these findings showed that there were significant short-term impacts on students' ATG-T, ATG-S, and GI-T after the outdoor camp.

The results of the statistical analysis showed that the mean pre-test scores of ATG-S, ATG-T, GI-S, and GI-T of the control group were 6.42 (SD = 1.21), 6.66 (SD = 1.32), 6.56 (SD = 1.52), and 6.91 (SD = 1.47), respectively. For the same subscales, their first post-test scores were 6.45 (SD = 1.31), 6.75 (SD = 1.44), 6.49 (SD = 1.56), and 6.75 (SD = 1.40), respectively.

Table 3 Mean and Standard Deviation of GEQ Subscales of the Control Group

Control group		N	Mean	Std. Deviation
ATG-S	Pre	78	6.42	1.21
	Post	78	6.45	1.31
ATG-T	Pre	79	6.66	1.32
	Post	79	6.75	1.44
GI-S	Pre	78	6.56	1.52
	Post	78	6.49	1.56
GI-T	Pre	78	6.91	1.47
	Post	78	6.75	1.40

Table 4 Result of Paired Samples Test for The Control Group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	SD	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
ATG-T	Pre - Post	-.03077	1.03501	.11719	-.26413	.20259	-.263	77	.794
ATG-S	Pre - Post	-.09494	1.39212	.15663	-.40675	.21688	-.606	78	.546
GI-S	Pre - Post	.07051	1.36152	.15416	-.23646	.37749	.457	77	.649
GI-T	Pre - Post	.16154	1.12218	.12706	-.09147	.41455	1.271	77	.207

For the control group, the results of the analysis showed that the mean differences between the pre-test and post-test scores of ATG-T (t(77) = .26, p = .794), ATG-S (t(78) = .61, p = .546), GI-S (t(77) = .46, p = .649), and GI-T (t(77) = 1.27, p = .207) were not significant. As such, these findings showed that there were no significant short-term impacts on students' ATG-T, ATG-S, GI-T and GI-S after the outdoor camp.

Discussion

Overall, there was evidence that outdoor education camp had a significant difference on students' group cohesion. A Paired Sample t-test analysis revealed that the experimental group had recorded a statistically significant difference between the pre-test and post-test scores of ATG-T (t(59) = 2.04, p = .046), ATG-S (t(58) = 2.70, p = .009), and GI-T (t(59) = 2.27, p = .027) were significant. In contrast, no such significant difference was observed for the GI-S subscale, (t(59) = 1.57, p = .123). As such, these findings showed that there were significant short-term impacts on students' ATG-T, ATG-S, and GI-T after the outdoor camp. On the other hand, the analysis of control group showed that the mean differences between the pre-test and post-test scores of ATG-T (t(77) = .26, p = .794), ATG-S (t(78) = .61, p = .546), GI-S (t(77) = .46, p = .649), and GI-T (t(77) = 1.27, p = .207) were not significant. As such, these findings showed that there were no significant short-term impacts on students' ATG-T, ATG-S, GI-T and GI-S after the outdoor camp.

As revealed above, the results also interpreted that, before the camp, the control group scored lower than the experimental group in all four subscales (refer to Table 3 and 4). The researcher believed that these differences made by the control group are due to the nature of the control group. Since the control group does not involve any treatment that need them to stick together in a group for a particular task, their score seems lower than the

experimental group. They probably lack the feeling of empathy, groupness and positive interrelationship toward friends that interpreted into the lower score in pre and post-test. Meanwhile, the experimental group showed a higher mean score than the control group. The higher mean score also can be explained as the experimental group involved with several weeks of preparation before their ROE camp. Thus it will need them to stick together and to work in their group to ensure their ROE camp running successfully. Moreover, another possible reason that can explain the significant results of the experimental group is due to the domination of the male respondent. Demographic data showed that 80.6% of the respondents in the experimental group were male. Therefore it can be based on the Kay (1996) finding of his study in mixed-gender groups, which he found that males are competitive than females. Another support that can explain the condition as noted by Cashdan (1998) which addressed that male used physical (but not verbal) aggression more frequently than female. He also added that young male was more competitive than older male in a variety of domains and was also more physically aggressive.

However, the analysis also found that GI-S subscales statistically insignificant score between pre and post-test. The insignificant score of the GI-S indicated that a majority of the respondent from the experimental group felt uncomfortable at the group level than at the individual level. Although the data increased at the post-test the researcher presumes that the insignificant score of individual level of social related aspect maybe because of the nature of the programme which encourage them to prioritize group aspect more than individual aspect.

Therefore, it can be summarize by the respondents from the experimental groups perceived the three subscales favourably with high scores of the means for the three aspects. It was definite that the experimental group had greater perceptions of group cohesion (both social and task cohesion) after the experience of outdoor education camp. Moreover, it was found that, the mean scores for GI-S were slightly increased and above the midpoint of the scale and the standard deviations were relatively small in comparison to the respective means. Based on the results, it was suggested that outdoor education camp in this study provided strong empirical evidence of the positive effect of ROE camp on students' group cohesion.

Conclusion and Recommendation

Furthermore, although the current study found personal factor (previous experience) to be influential, however this study unable to identify precisely the details of when, how and what element or activity the influence had occurred as this study assessed the effect of the ROE camp in a single aggregate (whole programme). That is, the particular activity and experiences that consisted of ten days programme were not access separately. Thus it is suggested to study each camp activity in the programme. To better understand the process of cohesion and attitudinal changes, future research is also encouraged to use mix method design to get an in-depth data which could represent the accurate "picture" or reality of the changes process. Finally, it is essential to address that this study only examined the short-term effects and two months delayed of selected camp. It is suggested for future research to continue such a study by using longitudinal approach since some researchers have suggested that

behaviour changes may take such a long time to occur that they are out of the time frame of most studies (e.g. one year after the camp). Future researchers are also heartened to assess the influence of longer duration outdoor education camp on the development of group cohesion as there is still a paucity of research in this area.

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References

Amusa, L. O., Toriola, A. L., & Goon, T. D. (2013). Physical education and school sport in South Africa. *The Global Journal of Health and Physical Education Pedagogy*, *2*, 187–196.

Attarian, A. (2001). Trends in outdoor adventure education. Journal of Experiential Education, 24(3), 141-149.

Bobilya, A. J., Holman, T., Lindley, B., & McAvoy, L. H. (2010). Developing trends and issues in U.S. outdoor and adventure-based programming. *Journal of Outdoor Recreation, Education, and Leadership, 2*(3), 301-321

Bell, B. J., Holmes, M. R., Vigneault, B., & Williams, B. (2008). Student involvement: Critical concerns of outdoor orientation programs . *Journal of Experiential Education*, *30*, 253–257. Retrieved from file:///C:/Documents and Settings/user/My Documents/research proposal/student involvement critical concern of outdoor orietation programs.pdf

Boulware, D. R., Forgey, W. W., & Martin, W. J. (2003). Medical risks of wilderness hiking. The American journal of medicine, 114(4), 288-293.

Bogner, F. X. (1998). The influence of short-term outdoor ecology education on long-term variables of environmental perspective. The Journal of Environmental Education, 29(4), 17-29. doi: 10.1080/00958969809599124

Bisson, C. (1997). *The effects of varying the sequence of categories of adventure activities on the development of group cohesion*. University of Northern Colorado, Greeley.

Bjorklund, D. F., & Bering, J. M. (2008). The evolved child - Applying evolutionary developmental psychology to modern schooling. *Learning and Individual Differences*, *12*.

Cengelcİ, T. (2013). Social studies teachers' views on learning outside the classroom. *Educational Sciences: Theory & Practice*, *13*, 1836–1841.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Dewey, J. (1938). *Experience and education*. New York: Macmillan.

Elena, M. (2016). Modeling group rapports in outdoor education activities. *Gymnasium*, *17*(2), 165–178. Retrieved from https://search-proquest-com.ezpustaka2.upsi.edu.my/docview/1880275188/EC4FCC12E7C847FBPQ/1?accountid=13155

Gilbertson, K., Bates, T., McLaughlin, T., & Ewert, A. (2006). *Outdoor education : methods and strategies*. Human Kinetics.

James, J. K., & Williams, T. (2017). School-Based Experiential Outdoor Education. *Journal of Experiential Education*, *40*(1), 58–71. https://doi.org/10.1177/1053825916676190

Johnson, J. W. (2012). *The effect of high school outdoor-based adventure leadership programs in independent schools on personal effectiveness and locus of control* (Master Thesis), Prescott College, Arizona.

Jostad, J., Sibthorp, J., & Paisley, K. (2013). Understanding groups in outdoor adventure education through social network analysis. *Australian Journal of Outdoor Education*, *17*(1), 17–31.

Kareem, O. A., & Kin, T. M. (2018). Attitudes toward Change: A Comparison Between Senior Assistants and Teachers in Malaysian Secondary Schools. *International Journal of Academic Research in Business and Social Sciences*, *8*(1), 249–265. https://doi.org/10.6007/ijarbss/v8-i1/3806

Cumming, W. T., & Corney, W. (1987). A conceptual model of gambling behavior: Fishbein's Theory of Reasoned Action. *Journal of Gambling Behavior, 3*(3).

Kimball, R. O., & Bacon, S. B. (1993). The wilderness challenge model. In M. A. Gass (Ed.), *Adventure therapy: Therapeutic applications of adventure programming* (pp. 11–41). Dubuque, IA: Kendall/Hunt Publishing Company.

Lane, J. (2008). *The effectiveness of an adventure travel summer camp program on the life effectiveness of adolescents*. University of New Hampshire, New England.

Lodhi, I. S., Shakir, M., Hussain, Z., & Abid, R. (2017). Effect of Outdoor Education on the Concept Attainment of Science at Elementary Level. *Journal of Critical Inquiry*, *15*(2).

Miles, J., & Shevlin, M. (2001). *Applying regression and correlation: A guide for students and researchers*. London: Sage.

Ministry of Education. Executive Summary:Malaysia Education Blueprint 2015-2025. (2015). Retrieved from https://www.um.edu.my/docs/default-source/about-um_document/media-centre/um-magazine/4-executive-summary-pppm-2015-2025.pdf?sfvrsn=4

Ord, J., & Leather, M. (2011). The substance beneath the labels of experiential learning: The importance of John Dewey for outdoor educators. *Australian Journal of Outdoor Education*, *15*, 13–23. Retrieved from http://search.proquest.com/docview/1010412780?accountid=27932

Orndorff, J. (2010). *The influence of treatment team cohesion in the success of in-home mental health treatment for children and adolescents with emotional and behavioral disorders*. *Faculty of Antioch University*. Antioch university, California.

Priest, S. (2000). The impact of sequencing on team work development in a CAT program. *The Australian Journal of Outdoor* , *5*.

Rausch, J. R., Maxwell, S. E., & Kelley, K. (2003). Analytic methods for questions pertaining to a randomized pretest, posttest, follow-up design. *Journal of Clinical Child and Adolescent Psychology*, *32*, 467–486.

Sheard, M., & Golby, J. (2006). The efficacy of an outdoor adventure education curriculum on selected aspects of positive psychological development. *The Journal of Experiential Education*, *29*, 187–209. Retrieved from http://search.proquest.com/docview/250916108?accountid=27932

Tas, E., & Gulen, S. (2019). Analysis of the Influence of Outdoor Education Activities on Seventh Grade Students. *Participatory Educational Research*, *6*(2), 122–143. Retrieved from https://eric.ed.gov/?id=EJ1236322

Trochim, W. M. K. (2015). Resesearch method and knowledge base. *Covariance Designs*. New

York. Retrieved from http://www.socialresearchmethods.net/kb/index.php

Yasim, M. M., Aziz, A., Md Taff, M. A., & Zakaria, J. (2018). Outdoor education camp and group cohesion: an investigation in the teacher education institute of Malaysia. *Journal of Fundamental and Applied Sciences*, *9*(6S), 1286. https://doi.org/10.4314/jfas.v9i6s.95

Yildirim, G., & Akamca, G. O. (2017). The effect of outdoor learning activities on the development of preschool children. *South African Journal of Education*, *37*(10).