



UNIVERSITI PUTRA MALAYSIA

***EFFECTS OF OUTDOOR EDUCATION ON GROUP COHESION
AMONG SECOND YEAR UNDERGRADUATE TEACHER TRAINEES
FROM
SELECTED TEACHER EDUCATION INSTITUTES IN MALAYSIA***

MAZUKI BIN MOHD YASIM

FH 2016 10



**EFFECTS OF OUTDOOR EDUCATION ON GROUP COHESION
AMONG SECOND YEAR UNDERGRADUATE TEACHER TRAINEES FROM
SELECTED TEACHER EDUCATION INSTITUTES IN MALAYSIA**

By

MAZUKI BIN MOHD YASIM

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

July 2016

COPYRIGHT

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, is copyright material of Universiti Putra Malaysia unless otherwise stated. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of Universiti Putra Malaysia.

Copyright © Universiti Putra Malaysia



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

**EFFECTS OF OUTDOOR EDUCATION ON GROUP COHESION
AMONG SECOND YEAR UNDERGRADUATE TEACHER TRAINEES
FROM SELECTED TEACHER EDUCATION INSTITUTES IN
MALAYSIA**

By

MAZUKI BIN MOHD YASIM

July 2016

Chair: Azlizam bin Aziz, PhD

Faculty: Forestry

The study seeks to investigate the effect of outdoor education camp toward group cohesion on the second year undergraduate teacher trainees from selected Teacher Education Institutes of Malaysia. It also examines the socio-demographic influences and sequence of activity that encourage group cohesion improvement. The study also attempts to shed light upon the delayed effect after two months completion of the camp. A pre-test and post-test approach with non-equivalent control group was utilised among 350 second year undergraduate students from four selected Teacher Education Institutes of Malaysia. Meanwhile, there is no control group used for the delayed post-test. A modified version of Group Environment Questionnaire (GEQ) and open ended questionnaire were used to gather data from pre, post and delayed post-test. Results from MANCOVA procedures suggested that the camp had positively improved the experimental group's group cohesion. Previous experience, place of residence, gender and camp location were found to have significant influence on the improvement of group cohesion. However, the study also revealed that this gain diminished over the two month period as measured by the delayed post-test. Responses from teacher trainees found that sequence of activity from low to high risk activity is the appropriate and influenced students' group cohesion improvement.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**KESAN PENDIDIKAN LUAR TERHADAP KESEPADUAN KUMPULAN
DALAM KALANGAN GURU PELATIH TAHUN DUA DARI INSTITUT
PENDIDIKAN GURU MALAYSIA TERPILIH**

Oleh

MAZUKI BIN MOHD YASIM

Julai 2016

Pengerusi: Azlizam bin Aziz, PhD

Fakulti: Perhutanan

Kajian ini bertujuan untuk mengkaji kesan perkhemahan pendidikan luar terhadap kesepaduan kumpulan guru pelatih tahun dua dari Institut Pendidikan Guru terpilih di Malaysia. Kajian ini juga turut mengkaji pengaruh sosio-demografi dan urutan aktiviti semasa program perkhemahan yang mengakibatkan peningkatan perpaduan kumpulan. Selain itu, kajian ini juga bertujuan untuk memberi penerangan tentang kesan ujian pasca yang dilewatkan selama dua bulan selepas kem perkhemahan berakhir. Kajian ini menggunakan kaedah ujian pra dan pasca dengan menggunakan kumpulan kawalan. Data kajian dipungut daripada 350 pelajar tahun dua dari empat Institut Pendidikan Guru Malaysia yang terpilih. Soal Selidik Persekitaran Kumpulan (GEQ) dan soalan terbuka telah digunakan untuk mengumpul data dari ujian pra dan pasca. Manakala tiada kumpulan kawalan digunakan bagi ujian pasca yang dilewatkan. Analisis MANCOVA menunjukkan bahawa perkhemahan pendidikan luar ini telah berjaya meningkatkan secara positif perpaduan kumpulan guru pelatih. Penglibatan aktif dalam aktiviti luar, lokasi tempat tinggal, jantina dan lokasi perkhemahan didapati mempunyai pengaruh yang besar ke atas peningkatan kesepaduan kumpulan. Walau bagaimanapun, kajian itu juga mendedahkan bahawa melalui ujian pasca yang dilewatkan mendapati kesan perkhemahan pendidikan luar menjadi semakin berkurangan selepas tempoh dua bulan. Selain daripada itu, kajian itu turut mendapati bahawa urutan aktiviti dari yang berisiko rendah kepada aktiviti berisiko tinggi adalah amat bersesuaian dan mempengaruhi peningkatan perpaduan kumpulan guru pelatih.

ACKNOWLEDGEMENTS

I would like to express my greatest gratitude to the wonderful group of people who have helped make this 'impian' a reality. Thank you to:

- The Ministry of Higher Education and the Sultan Idris Education University for sponsoring my study.
- My great supervisor Associate Professor Dr. Azlizam bin Aziz, Associate Professor Dr. Abdullah Mohd, Associate Professor Dr. Md Amin Md Taff, Dr. Saidon Amri and Dr. Siti Suriawati Isa and all Faculty of Forestry staff for their extensive time, suggestions, enthusiasm and encouragement. You guys are my role models.
- Teacher Education Institute of Malaysia, Campus Perlis, Temenggung Ibrahim, Tun Razak and Raja Melewar for their lovely camp experiences.
- Mr. John, Dr. Hafizal, Mus, Lan, Abu, Fiza...For being friends...
- Mek Dah, Kak Leha, Abang Li and Mek Na.. Thanks for all the good prayers until I reach the final destination..
- My father, late mother and late mother in law who always inspired me along this journey.. This journey has taught me much about love and lost..
- Mama, Ayong, Adam, Adik Ammar and Adik Maryam who have sacrificed a lot... This 'journey' have taught us a lot about life, love and family...

May Allah Bless You All Guys..Amin..

I certify that a Thesis Examination Committee has met on (date of viva voce) to conduct the final examination of (student's name) on his (her) thesis entitled ("Title of Thesis") in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the (insert the name of relevant degree).

Members of the Thesis Examination Committee were as follows:

Assoc. Prof. Dr. Shukri Mohamad
Faculty of Forestry
Universiti Putra Malaysia
(Chairman)

Assoc. Prof. Dr. Manohar Mariapan
Faculty of Forestry
Universiti Putra Malaysia
(Internal Examiner)

LAr. Dr. Suhardi Maulan
Faculty of Design and Architecture
Universiti Putra Malaysia
(Internal Examiner)

Dr. Vinesh Chandra
School of Curriculum
Faculty of Education
Queensland University of Technology
Australia
(External Examiner)

(ZULKARNAIN ZAINAL, PhD)

Professor and Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Azlizam bin Aziz, PhD

Associate Professor
Faculty of Forestry
Universiti Putra Malaysia
(Chairman)

Abdullah Mohd, PhD

Associate Professor
Faculty of Forestry
Universiti Putra Malaysia
(Member)

Saidon Amri, PhD

Senior Lecturer
Faculty of Educational Studies
Universiti Pendidikan Sultan Idris
(Member)

Siti Suriawati Isa, PhD

Senior Lecturer
Faculty of Forestry
Universiti Putra Malaysia
(Member)

Md Amin Md Taff, PhD

Associate Professor
Faculty of Sports Science and Coaching
Universiti Pendidikan Sultan Idris
(Member)

BUJANG BIN KIM HUAT, PhD

Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

Declaration by graduate student

I hereby confirm that:

- this thesis is my original work;
- quotations, illustrations and citations have been duly referenced;
- this thesis has not been submitted previously or concurrently for any other degree at any other institutions;
- intellectual property from the thesis and copyright of thesis are fully-owned by Universiti Putra Malaysia, as according to the Universiti Putra Malaysia (Research) Rules 2012;
- written permission must be obtained from supervisor and the office of Deputy Vice-Chancellor (Research and Innovation) before thesis is published (in the form of written, printed or in electronic form) including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports, lecture notes, learning modules or any other materials as stated in theUniversiti Putra Malaysia (Research) Rules 2012;
- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld as according to the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software.

Signature: _____ Date: _____

Name and Matric No.: _____

Declaration by Members of Supervisory Committee

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) are adhered to.

Signature: _____
Name of Chairman
of Supervisory
Committee: **Azlizam bin Aziz, PhD**

Signature: _____
Name of Member of
Supervisory Com-
mittee: **Abdullah Mohd, PhD**

Signature: _____
Name of Member of
Supervisory Com-
mittee: **Saidon Amri, PhD**

Signature: _____
Name of Member of
Supervisory Com-
mittee: **Siti Suriawati Isa, PhD**

Signature: _____
Name of Member of
Supervisory Com-
mittee: **Md Amin Md Taff, PhD**

TABLE OF CONTENTS

	Page
ABSTRACT	i
ABSTRAK	ii
ACKNOWLEDGEMENTS	iii
APPROVAL	iv
DECLARATION	vi
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF ABBREVIATIONS	xiii
CHAPTER	
1	INTRODUCTION
1.1	Background 1
1.2	Problem statement 3
1.3	Justification and Significance of the Study 4
1.4	Research question 5
1.5	Research objectives 5
1.6	Limitation 6
1.7	Delimitation 6
1.8	Definition and Measurement of Key Terms 7
1.9	Chapter summary 9
2	LITERATURE REVIEW
2.1	Introduction 10
2.2	Semantic and Definition 10
2.2.1	Recreation and Leisure 11
2.2.2	Outdoor Recreation 11
2.2.3	Outdoor Education 12
2.2.4	Relationship of Outdoor Recreation to Outdoor Education 14
2.3	Basic Tenet of Outdoor Education 15
2.3.1	Philosophy 16
2.4	Development of Outdoor Education in Malaysia 17
2.4.1	The Influence of Outward Bound Lumut, Malaysia 18
2.4.2	The Influence of Government and Pri- vate Sector's Outdoor Education Pro- grammes 18
2.4.3	Outdoor Education in Malaysian Educa- tional System 19
2.4.4	Outdoor Education in the Teacher Edu- cation Institute of Malaysia 20
2.5	The Focus of Outdoor Education 21

2.6	Outdoor Education Learning Process	23
2.6.1	Theory and Model of Learning	23
2.7	Group Cohesion	27
2.8	Sequencing of Activity in Outdoor Education	28
2.8.1	Sequencing Model	28
2.8.2	Sequencing and Group Cohesion	29
2.9	Theoretical Foundation	29
2.9.1	Carrons' Group Cohesion Model	30
2.10	Research Conceptual Framework	32
2.10.1	Independent Variable	34
2.10.2	Dependent Variable	36
2.11	Summary of Previous Study	37
2.12	Chapter Summary	37
3	DESIGN, INSTRUMENTATION AND PROCEDURE	
3.1	Introduction	39
3.2	Design of Study	39
3.3	Population and Sampling	42
3.3.1	The Experimental Group	42
3.3.2	The Control Group	43
3.4	Place of Research	44
3.5	Instrumentations	44
3.5.1	Student's Demographic Inventory	44
3.5.2	Group Environment Questionnaire (GEQ)	44
3.6	Instrument Reliability	47
3.7	Pilot Study	50
3.8	Factor Analysis	51
3.9	Discriminant Validity	55
3.10	Data Collection Procedure	55
3.10.1	Initial Contact	56
3.10.2	Researcher's Participation	56
3.10.3	Administering Pre-Test	56
3.10.4	The Treatment Camp	57
3.10.4.1	Camp-Based Activities	58
3.10.4.2	Adventure-Based Activity	58
3.10.5	Administering Post-Test	60
3.10.6	Administering Delayed Post-Test	60
3.11	Data Analysis	61
3.12	Data Cleaning and Verification	62
3.12.1	Kolmogorov-Smirnov Tests	62
3.12.2	Internal Consistency of the GEQ	63
3.12.2.1	ATG-T Subscale Reliability Analysis	64
3.12.2.2	ATG-S Subscale Reliability Analysis	64
3.12.2.3	GI-T Subscale Reliability Analysis	64

	3.12.2.4	GI-S Subscale Reliability Analysis	65
	3.13	Chapter Summary	65
4		RESULTS AND DISCUSSION	
	4.1	Introduction	66
	4.2	Socio Demographic Variables and Profile of the Respondents	66
	4.2.1	Experimental Group	68
	4.2.2	Control Group	70
	4.2.3	Summary of Demographic and Social Analysis	72
	4.3	Research Questions	73
	4.3.1	Research Question 1	73
	4.3.2	Research Question 2	88
	4.3.3	Research Question 3	101
	4.3.4	Research Question 4	113
5		CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS	
	5.1	Introduction	122
	5.2	Conclusion	122
	5.3	Research implications	123
	5.3.1	Implication to the Body of Knowledge	123
	5.3.2	Implication to the Implementation of Effective Practice	125
	5.4	Recommendation For Future Research	128
	5.5	Chapter Summary	129
		REFERENCES	130
		APPENDICES	164
		BIODATA OF STUDENT	177
		LIST OF PUBLICATIONS	178

LIST OF TABLES

Table		Page
3.1	List of Panel of Experts	48
3.2	Original and Revised Item Statements	49
3.3	GEQ Internal Consistency	51
3.4	Result of KMO and Bartlett's Test	52
3.5	Result of Total Variance Explained	53
3.6	Result of Rotated Component Matrix ^a	54
3.7	Result of Component Transformation Matrix	55
3.8	Details of Treatment Camp	57
3.9	List of Camp Based Activity	59
3.10	List of Adventure-based Activity	60
3.11	Data Analysis Techniques	62
3.12	Internal Consistency of the GEQ	64
4.1	Socio-demographic and Profile of the Respondents	67
4.2	Student's Academic Background	68
4.3	Result of Paired Sample T-Test for the pre and Post-test GEQ Scores	74
4.4	Result of MANOVA Examining the level of Group Cohesion Before the Camp	77
4.5	Results of Univariate ANOVA Examining the Level of Group Cohesion before the Camp	77
4.6	Results of the MANCOVA Test Examining the level of Group Cohesion after the Camp	82
4.7	Results of Univariate ANOVA Examining the level of Group Cohesion after the camp	83
4.8	Overall Result of Paired Simple T-Test for the Post and Delayed Post-test GEQ Scores	89
4.9	Results of the Paired Sample T-Test Examining Effect after Two Months Completion of the Perlis's Campus Camp	90
4.10	Results of the Paired Sample T-Test Examining Effect after Two Months Completion of the Raja Melewar's Campus Camp	91
4.11	Results of the Paired Sample T-Test Examining Effect after Two Months Completion of the Tun Razak Campus Camp	92
4.12	Results of the Paired Sample T-Test Examining Effect after Two Months Completion of the Temenggung Ibrahim Campus Camp	93
4.13	MANOVA and MANCOVA Analyses for Influence of Socio-demographic Variables on Teacher Trainee's Group Cohesion in Outdoor Education Camp Before and After the Camp	102
4.14	Rank Order of Activities that Positively Influence Students' Group Cohesion	114
4.15	Comparison of Sequence of Activity for the Current Finding with Previous Study	118

LIST OF FIGURES

Figure		Page
2.1	Outdoor Education Tree	16
2.2	Outdoor Education Focus Model	22
2.3	Kolb's Experiential Learning Model	24
2.4	Outward Bound Educational Process Model	26
2.5	Group Cohesion Model	31
2.6	Carron's Conceptual Model of Group Cohesion	32
3.1	Design of Study	41
3.2	A Conceptual Model for Team Cohesion in Sport	47



LIST OF ABBREVIATIONS

ATG-S	Attraction to Group Social
ATG-T	Attraction to Group Task
BIG	Bina Insan Guru
CAT	Corporate Adventure Training
CGCM	Carron's Group Cohesion Model
ELM	Experiential Learning Model
GEQ	Group Environment Questionnaire
GI-S	Group Integartion Social
GI-T	Group Integartion Task
MOE	Ministry of Education
MPIK	Maktab Perguruan Ilmu Khas
OB	Outward Bound
OBEPM	Outward Bound Educational Process Model
PLKN	Program Latihan Khidmat Negara
TED	Teacher Education Division
UiTM	Universiti Teknologi MARA
UKM	Universiti Kebangsaan Malaysia
UPM	Universiti Putra Malaysia
UPSI	Universiti Pendidikan Sultan Idris

CHAPTER 1

INTRODUCTION

1.1 Background

Outdoor education is a form of learning process conducted in both outdoor and indoor settings which involves challenging or adventure activities as a medium to foster individual, personal and social growth (Fiskum & Jacobsen, 2012; Foley, 2009). It has been proven useful in promoting academic achievement, work commitment, critical thinking, and in preventing delinquency (Ewert, 2005). According to Foley (2009), outdoor education is interchangeable with other terms and often referred to as adventure education, adventure programming, outdoor learning, outdoor school, adventure therapy, adventure recreation, adventure tourism, expeditionary learning, challenge education, experiential education, environmental education, and wilderness education. Typically, the stated objectives of outdoor education are improving group cohesion, leadership skills, improving problem-solving skills, self-conceptualization, increasing trust, and improving communication (Bobilya, Holman, Lindley, & McAvoy, 2010; Shivers-Blackwell, 2004). In other words, the emphasis on interpersonal and intrapersonal relationships is frequently considered to be the primary focus of outdoor education (Priest & Gass, 2005; Zink & Boyes, 2006).

One of the most popular programmes in outdoor education is outdoor education camping (Baghani, 1981; Mohd Taib & Norlena, 2014). Outdoor education camping at higher institution currently encompasses a wide range of opportunities for students development (Uhls et al., 2014). The main goal of these generally focuses on students' group cohesion, leadership, self-esteem, character development and their personal and social development (Martin, 2010). Therefore, these programmes are typically expected to translate into lower student attrition rates, increase level of cohesion, increase academic performances, greater levels of emotional and social developments, and more positive attitude toward the institution that they are newly entering (Michael, Daniel, & Deborah, 2003; Shayne, 2000).

In Malaysia, outdoor education has been developed as a consequence of Razak Report 1956 which stressed on national unity through the education system (Ministry of Education, 1956). As the first education report, Razak's Report highlighted the importance of educational development in Malaysia. This was then followed by the National Education Policy (Education Act 1961) which strengthens the importance roles of education as a tool for national unity and nation building has become a tool of social system (Ishak, 2005). Thus the Ministry of Education had launched the National Education Philosophy that focuses on the development of physical, emotional, spiritual and socially well-balanced individuals through indoor and outdoor teaching strategies (Ministry of Education, 2013a).

To achieve these objectives, the creation of quality and excellent teachers is the goal and the mission of the Teacher Education Division (TED), at the Malaysian Ministry of Education. Teacher quality is fundamental aspect of the success of the newly launched National Education Policy (Abu Bakar, 2002 cited in Azita, 2007). In line with the goal, the TED has set the philosophy of teacher education which outlines:

Teacher, who is noble in character, progressive and scientific in outlook, committed to uphold the aspirations of the nation, and cherishes the national cultural heritage, ensures the development of the individual and the preservation of a united, democratic, progressive and disciplined society (Ministry of Education, 2013b, p. 15).

Hence, the TED has prepared the curriculum and syllabus based on the philosophy outlined which includes the three components that have an equal weightage of academic, co-curricular and practicum to be applied in Teacher Education Institutes of Malaysia (Azita, 2007). One of the academic components contained in the curriculum is outdoor education subject which focus to develop well balanced teacher trainees (Ministry of Education, 2001). The syllabus requires teacher trainees to attend outdoor education camping programmes for six days.

In these six days outdoor education camping programmes, the teacher trainees are exposed to outdoor pursuit activities in which the main objectives are to gain their personal and social development, outdoor pursuit skill and management skill. Traditional base camp approach is applied with teacher trainees need to sleep in tents with their group members and prepare their own meals. Meanwhile, during day time they are required to experience outdoor pursuit activities and management skills. On the other hand, at night they are encouraged to have a series of group discussion, games and presentations to maximise the outcomes.

The outcome of the outdoor education camp is also found to be linked with enhancement in personal and social development, adventure experience and environmental education (Lynch, 2011). From the perspective of benefits on personal and social development it is suggested that outdoor education camp may generate positive results in group cohesion (Boyle, 2002; Chang & Bordia, 2006; Eys, Ritchie, Little, Slade, & Oddson, 2008; Gass, 1987; Gass, Garvey, & Sugerman, 2003; Jaffry, 2012; Malcarne, 2012; Mazuki, 2010; O'Bannon, 2000; Paisley et al., 2014).

However, in contrast, there are some researchers who argued and found contradictory results that outdoor education camp can significantly influenced group cohesion (e.g. Bailey, 2000; Bjorklund & Bering, 2008; Lane, 2008; Murphy, 2001). In general, they claimed that after one week of outdoor education camp, no significant change was found.

Therefore, amidst all the inconclusive findings, there is a need for a systematic research to gather empirical evidence in order to support the claims that

outdoor education camp in the Teacher Education Institutes of Malaysia have a major enduring effects on group cohesion (Sheard & Golby, 2006b).

This study plans to examine the impacts of outdoor education on group cohesion among participants from selected Teacher Education Institutes of Malaysia. It also increased our understanding on the relevance of providing outdoor educational experiences for those students. This inquiry will help the particular tertiary educational institutions that are involved in the study and the Ministry of Education, in order to make a new policy regarding outdoor education camp in the future.

1.2 Problem Statement

Several outdoor educators and researchers have proposed that participation in outdoor education camps is effective in fostering participants' group cohesion (Boyle, 2002; Bunting, 2006; Chang & Bordia, 2006; Garst, Baughman, Franz, & Seidel, 2013; Hatch & McCarthy, 2005; McKenzie, 2000b; Stroud, 2006). This assumption was made as outdoor education emphasized on the importance of interpersonal relationship and group cohesion (Sibthorp, Furman, Paisley, & Gookin, 2009).

Based on these assumptions, the Malaysian Ministry of Education had highlights the importance of outdoor education camps to foster group cohesion among Malaysian students. This was done through the establishment of National Services Programme (PLKN), Co-curricular Centre, the enactment of outdoor education topic in physical education subject in school, and the inclusion of outdoor education subject in Teachers Training curriculum.

However, the effectiveness of outdoor education camps as a catalyst for the formation of group cohesion is debatable, due to inconsistent findings. For instance, several studies in outdoor education camps found insignificant results of group cohesion enrichment, and inconsistent finding on task and social aspects that influences group cohesion (Borland, Burton, & Kane, 2014). While others reported participants did not show any changes after experiencing learning in environmental setting due to lack of classroom reinforcements (Knapp, 2000), less effects on behavioural outcomes (Tannenbaum, Beard, & Salas, 1992), lack of appropriate sequence of activities and insufficient transfer of learning (Bisson, 1997; Furman & Sibthorp, 2012)

These inconsistent findings posed a challenge to the implementation of outdoor education in Malaysian educational system, especially the socio-economic aspects of the subject. As camping involves abundant time of planning, resources and finances, the current scenario of inconclusive effects of camping is tapping outdoor education subject at stake.

To date, the National Services programs which focus on outdoor education approach as a medium of national cohesion building were put on halt for a year. Plus, budget cut in Malaysia education sector might affect the

implementation of outdoor education camps in schools and Teachers Training Institute as it involves extensive amount of money. In addition, the delayed effects of outdoor education camping especially in Teachers Training Institute towards group cohesion were rarely examined in Malaysia (Md Amin, Azlizam, Jaffry, 2011).

To address these knowledge gaps, this study is researching the short-term and long-term effects of outdoor education camps in Teachers Training Institute towards group cohesion. The Teacher Education Institutes of Malaysia was chosen as a research subject because teaching is now widely acknowledged to be the most important factor influencing implementation of outdoor education in school. The current study is also examining claims made by several researcher from higher institution in Malaysia about the effectiveness of their outdoor education camps in nurturing positive group cohesion (Amy, 2007; Jaffry, 2012; Mazuki, 2010; Muhammad Norazizuddin, 2013).

Specifically, the current study posed several critical questions to the implementation of outdoor education camps in Teacher Education Institute of Malaysia: (1) Does outdoor education camp effectively improve the Teacher Education Institute of Malaysia students' group cohesion? (2) Can the group cohesion gained from the outdoor education camp transferred into participants' daily life and effective in long-term? (3) Are there any social demographic influences on the development of group cohesion among students? (4) What is the sequence of activities in outdoor education camp that might be influential in enhancing group cohesion?

Finding from this research will underline the future body of knowledge, curriculum and practices of outdoor education camp on group cohesion in Teacher Education Institute of Malaysia.

1.3 Justification and Significance of the Study

One of the trends in the field of outdoor education is a need for evaluation of programmes' effectiveness (Attarian, 2001; Bobilya et al., 2010; Johnson, 2012). A number of 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 learning process, many studies have been conducted in examining the effects of outdoor education, especially on participants' personal and social development (American Institute for Research, 2005; Boyle, 2002; Shivers-Blackwell, 2003; Williams, Graham, & Baker, 2003).

However, the effectiveness of outdoor education in improving group cohesion does not remain longer and criticized by many researchers (Boulware, Forgey, & Martin, 2003). There are various studies radically questioned such influences by requesting for empirical evidences rather than only assuming such positive outcomes. Bogner (2002), for instance judged any demonstrable positive effects of outdoor education camp as ill-founded. Yet, the evidences 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).

In addition, this is the first study that explores the delayed effect of outdoor education on group cohesion in a broader context in the Malaysian outdoor 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 outdoor education on group cohesion. The outcome of this study also can be used as an indicator for outdoor educators in Malaysia and as useful information for the Malaysian Ministry of Education to enhance the syllabus of the Teacher Education Institutes of Malaysia if needed. Furthermore, to better understand the effects of group cohesion in outdoor education at the Teacher Education Institutes of Malaysia, empirical research is needed.

1.4 Research Question

The following research questions are the central interest of this study:

1. Do outdoor education camps in selected Teacher Education Institutes of Malaysia affect teacher trainees' short term group cohesion?
2. Do outdoor education camps in selected Teacher Education Institutes of Malaysia affect teacher trainees' group cohesion affect after two months after program completion?
3. How do the changes in teacher trainees' group cohesion influenced by their socio-demographic variables?
4. What sequence of activities in the outdoor education camps do the participants perceived as influencing their group cohesion?

1.5 Research Objectives

The general objective of this study is to examine the effect of outdoor education camp on group cohesion among outdoor education students from selected Teacher Education Institutes of Malaysia. More specifically, the objectives of this study are:

- (a) to determine the short-term effects of outdoor education towards group cohesion in selected Teacher Education Institutes of Malaysia,
- (b) to determine the delayed effect of outdoor education camp on group cohesion,
- (c) to determine the influences of socio-demographic variables on teacher trainees' group cohesion, and

- (d) to identify sequence of activities in the outdoor education camp programmes that might influence teacher trainees' group cohesion.

1.6 Limitation

Several limitations were identified in this study on group cohesion as a result of participation in the outdoor education camp.

- (a) This study is limited to the four campuses of the selected Teacher Education Institutes of Malaysia as was declared by The Ministry of Education as the niche area for Physical Education campuses.
- (b) This study is limited to the camp location as decided by each campus according to the criteria given by the Ministry of Education.
- (c) This study is limited to purposive sampling techniques where the four campuses of the selected Teacher Education Institutes of Malaysia were chosen to form the sample that is representative of the population. The technique was chosen as more convenient (to include people of interest) and economical but it did not contribute to generalisation (Babbie, 2012).
- (d) The study of delayed effect is limited to two months due to time constraint. A two-month length of time was chosen as the follow up administration period for two reasons. First, a two-month length was the first interval at which long term gains were found in Priest (1996) and Priest's (1998b) studies and was between the time intervals in which long-term gains dissipated in Priest and Lesperance's 1994 study. Second, a two month delay was the latest possible point at which participants in this study could be assessed after completion of the camp due to a long semester break.
- (e) The presence of the researcher in each outdoor education camp may have influenced directly how each camp was facilitated. Therefore, to minimise the issue, the researcher make sure the camp programme is accord with the tentative.
- (f) The presence of the researcher in each outdoor education camp may have influenced participants to provide socially desirable responses to the questionnaire. To minimise the issue, the researcher did not mention post-test and delayed post-test in order to minimize the halo effect. Halo effect is the tendency of a research population to let current rating influence future rating (Baumgartner & Hensley, 2006).

1.7 Delimitation

The following delimitations are placed on this study:

- (a) The study is delimited on the subject of outdoor education from selected Teacher Education Institutes of Malaysia as announced by the Ministry of Education.

- (b) Group cohesion is accessed by the Group Environmental Questionnaire (GEQ) (Carron, Widmeyer, & Brawley, 1985).
- (c) The study is delimited to the six days and five nights' outdoor education camping programmes.
- (d) This study is delimited to the response of outdoor education students from selected Teacher Education Institutes of Malaysia on student group cohesion only.
- (e) This study is delimited to the responses of outdoor education teacher trainees from selected Teacher Education Institutes of Malaysia for two months delayed effect without any control group.

1.8 Definition and Measurement of Key Terms

Given below are operational definitions as they are used in this study.

Outdoor education

Outdoor education refers to the use of the outdoors for educational purposes. Outdoor education often involves small groups that are actively engaged in adventurous activities for personal growth under the guidance of an instructor or leader (Neill, 2008). Operationally, in this study it refers to the outdoor education camping programmes for students from the Teacher Education Institutes of Malaysia which composed of several campuses namely Perlis Campus, Tun Abdul Razak Campus and Raja Melewar Campus.

Outdoor Education Camp

Operationally, it refers to the continuous six days and five nights outdoor education camp for the Teacher Education Institutes of Malaysia students that take outdoor education subject.

Group cohesion

A dynamic process that is reflected in the tendency of a group to stick together and remain united in the pursuit of its goals and objectives (Carron, Burke, et al., 2002). Operationally, it refers to the tendency of a group of students from selected Teacher Education Institutes of Malaysia to stick together in their final outdoor education camp. Group cohesion is measured by using Group Environmental Questionnaire (GEQ) which consists of four dimension constructs namely group integration-task (GI-T), group integration-social (GI-S), individual attraction to the group-task (ATG-T), and individual attraction to the group-social (ATG-S) (Brawley, Carron, & Widmeyer, 1987).

Natural Environment

Natural environment is commonly referred to simply as the environment, encompasses all living and non-living things occurring naturally on earth or

some region thereof (Place, 2004). Operationally, it refers to the surrounding environments which the outdoor education camp was held.

Physical Education and Health

Physical education also known in many Commonwealth countries as physical training is an educational course related to the physique of the human body. It encourages psychomotor learning in a play or movement exploration setting to promote health (Amusa, Toriola, & Goon, 2013). Operationally, it refers to the academic programme enrolled by the experimental group from selected Teacher Education Institutes of Malaysia. The focus of the programme is more on scientific study in sports, leisure, games and recreation.

Social Studies

Social studies are the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systematic study drawing upon such disciplines as linguistic, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and natural sciences. Operationally, in this study, it refers to the control group students in the selected Teacher Education Institutes of Malaysia.

Teacher trainees

Operationally, it refer to the Teacher Education Institutes of Malaysia undergraduate students that enrolled in physical education and social studies (February 2013) at selected campuses.

Delayed effect

It refers to the effects obtained in the delayed post-test which are indicators for the long-term effect. It also refers to the effects that are the results of intervention two months after completion of the outdoor education camp.

Sequence

It refers to a series of adventure and/or educational activities arranged through a linear period of time (Schoel, Prouty, & Radcliffe, 1988).

Outdoor Pursuit Activities

It refers to the self-propelled activities performed in an outdoor setting (Priest, 1990). These activities typically include kayaking, camping, survival, orienteering and abseiling.

Socio-demographic Variable

It refers to a group defined by its sociological and demographic characteristics (Veghari et al., 2010). Operationally, in this study it refers to the three categories of factor namely, personal factors, environmental factors, and team factors.

Personal Factor

It refers to the individual characteristics of group members such as individual ability, personality, and interpersonal compatibility (Carron et al., 1985). Operationally, in this study it refers to previous experience, place of residence and gender.

Environmental Factor

It refers to the social and physical characteristics of the environment and included aspects such as outdoor environment (wilderness, camp, etc.) and all of its various forces, programmes components, territoriality, spatial behaviour, environmental stress, time demand, and fear or anxiety (McAvoy, Mitten, Stringer, Steckart, & Sproles, 1996). Operationally, it refers to the camp location.

Team Factor

It refers to the group composition (Herre, 2010) for instance, group size, and group organization (McGrath, 1964). Operationally, in this study it refers to the campus location.

1.8 Chapter Summary

This chapter lays the foundation for the thesis. It first introduces the research background and points to the current issues of outdoor education camp towards group cohesion before presenting the problem statements, research objectives and research questions. Next, the research significance is identified before the delimitation and definition of key terms are drawn. In short, on this basis, the study proceeds with a foundation and detailed description of the research.

supporting the beneficial effects of outdoor education programme on students' group cohesion.

REFERENCES

- Abu Bakar Sidek, M. I. (2004). *Pendidikan luar: Suatu pendekatan (Outdoor education: As an approach)*. Faculty of Sport Science. Universiti Pendidikan Sultan Idris. Tanjong Malim.
- Achor, E. E., & Amadu, S. O. (2015). An examination of the extent to which school outdoor activities could enhance senior secondary two students' achievement in ecology. *Journal of Education and e-Learning Research*, 2(3), 35-41.
- Aivazidis, C., Lazaridou, M., & Hellden, G. (2006). A comparison between a traditional and an online environmental education program. *Journal of Environmental Education Research*, 37(4), 45-54.
- Alan, G. M. (2006). *A study exploring managers' knowledge sharing strategies through the learning styles of Experiential Learning Theory*. (PhD), The George Washington University in partial fulfillment, Washington.
- Albert, M. B. (2002). *The relationship between different leadership styles and group cohesion in outdoor challenge education*. (3045581 Ed.D.), University of California, Los Angeles, Ann Arbor. Retrieved from <http://search.proquest.com/docview/304801225?accountid=27932> ProQuest Dissertations & Theses Full Text database.
- Alp, E., Ertepinar, H., Tekkaya, C., & Yilmaz, A. (2006). A study on children's environmental knowledge and attitudes: The effect of grade level and gender. *International Research in Geographical and Environmental Education Research*, 15.
- Altman, S. R., Estes, C., & Tittle, F. (2006). Sexual orientation and team cohesion in women's intercollegiate basketball *Larnet: The Cyber Journal of Applied Leisure and Recreation Research*
- American Institute for Research. (2005). *Effect of outdoor education programs for children in California*. American Institute for Research Retrieved from www.seer.org/pages/research/AIROutdoorSchool2005.pdf

- 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(3), 187-196.
- Amy, A. D. (2007). *Program pendidikan luar dan implikasinya terhadap konsep sendiri guru pelatih (Outdoor education program and its implication towards under training teacher's self-concept)*. Paper presented at the Seminar Penyelidikan Pendidikan Institut Perguruan Batu Lintang, Merdeka Palace, Kuching Sarawak.
- Ancona, D. G. (1999). The classics and the contemporary: A new blend of small group theory. In J. K. Murnighan (Ed.), *Social psychology in organizations: Advances in theory and research* (pp. 225-243). Englewood Cliffs, NJ: Prentice Hall.
- Anderson, G. (2010). *The impact of cooperative video games on team cohesion*. (3404430 Ph.D.), Indiana State University, Ann Arbor. Retrieved from <http://search.proquest.com/docview/516306149?accountid=27932> ABI/INFORM Complete; ProQuest Central database.
- Anderson, G. S., & Frison, D. (1992). The hidden value of adventure-based programs: A reflection CANPER. *Journal of Experiential Education*, 58(2), 12-17.
- Annetta, L. A., Minogue, J., Holmes, S. Y., & Cheng, M. T. (2009). Investigating the impact of video games on high school students' engagement and learning about genetics. *Computers & Education*, 53, 74-85.
- Anton, C. E., & Lawrence, C. (2014). Home is where the heart is: The effect of place of residence on place attachment and community participation. *Journal of Environmental Psychology*, 40, 451-461. doi: <http://dx.doi.org/10.1016/j.jenvp.2014.10.007>
- Arcury, T. A., & Christianson, E. H. (1993). Rural-urban differences in environmental knowledge and actions. *Journal of Environmental Education*, 25, 19-25.
- Ary, D., Jacobs, L. C., Razavieh, A., & Sorenson, C. (2006). *Introduction to research in education* (7th ed.). Belmont, CA: Thompson Wadsworth.
- Aspenson, J. L. (2010). *The influence of outdoor education to improve the quality of life for individuals with dementia thesis proposal*. (Master Thesis), University of Minnesota, Duluth.
- Attarian, A. (2001). Trends in outdoor adventure education. *Journal of Experiential Education*, 24(3), 141-149.
- Azita, A. (2007). *Penilaian pelajar terhadap kompetensi pemimpin program pendidikan luar di institut pendidikan guru Malaysia (Student*

assessment on competency of leader in outdoor education programmes at Malaysia Teacher Education Institute. (PhD Thesis), Universiti Putra Malaysia, Serdang.

- Babbie, E. (2005). *The basics of social research* (Third ed.). California: Wadsworth.
- Babbie, E. (2012). *The practice of social research* (13th ed.). Belmont, USA: Cengage Learning.
- Bacon, S. (1983). *The conscious use of metaphor*. Denver, Colorado: Colorado Outward Bound School.
- Baghani, A. (1981). *An analysis of organized camping in Iran*. (8112231 Educat.D.), Boston University School of Education, Ann Arbor. Retrieved from <http://search.proquest.com/docview/303063090?accountid=27932> ProQuest Dissertations & Theses Full Text database.
- Bailey, D. (2000). Is anyone out there listening? *Quest*, 52(4).
- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41, 63-105.
- Ball, J., R., & Carron, A. V. (1976). The influence of team cohesion and participation motivation upon performance success in intercollegiate ice hockey. *Canadian Journal of Applied Sport Sciences*, 1, 271-275.
- Barnard, J. K. (2005). *The effects of a near versus far transfer of training approach on trainees' confidence to coach related and unrelated tasks* (PhD Thesis), The Ohio State University
- Barnett, S. M., & Ceci, S. J. (2002). When and where do we apply what we learn? A taxonomy for far transfer. *Psychological Bulletin*, 128, 612-637.
- Barton, B. (2006). *Safety, risk and adventure in outdoor activities*: SAGE Publications.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Baumgartner, T. A., & Hensley, L. D. (2006). *Conducting and reading research in health and performance* (4 ed.). New York: McGraw Hill.
- Baumgartner, T. A., Strong, C. H., & Hensley, L. D. (2002). *Conducting and reading research in health and human performance* (3rd ed.). New York: McGraw-Hill.

- Beaudin, B. P., & Quick, D. (1995). *Experiential learning: Theoretical underpinnings*. Colorado State University: U.S. Department of Health and Human Services.
- Beavers, W. R., Hampson, R. B., & Hulgus, Y. F. (1985). The beavers' systems approach to family assessment. *Family Procedures*, 24, 398-405.
- Bell, A. (2003). A narrative approach to research. *Canadian Journal of Environmental Education*, 8(Spring), 95-110.
- Bell, S. T. (2007). Deep-level composition variables as predictors of team performance: A meta-analysis. *Journal of Applied Psychology*, 92(3), 595-615.
- Belton, R. A. (2010). *The impacts of experiential learning on leadership identity in female college graduates*. (PhD), University of North Carolina, Greensboro.
- Berdahl, J., & Craig, K. (1996). Equality of participation and influences in groups: The effects of communication medium and sex composition. *Computer Supported Cooperative Work*, 4, 179-201.
- Berg, K. E., & Latin, R. W. (2004). *Essentials of research methods in health, physical education, exercise science, and recreation* (2 ed.). Baltimore: Lippincott Williams & Wilkins.
- Berman, M. G., Kross, E., Krpan, K. M., Askren, M. K., Burson, A., & Deldin, P. J. (2012). Interacting with nature improves cognitive and affect for individuals with depression. *Journal of Affective Disorder*, 140, 300-305.
- Bickhard, M. H. (1992). How does the environment affect the person. *Children's development within social contexts: Metatheory and theory*, 63-92.
- Bishop, P. D., Chertok, F., & Jason, L. A. (1997). Measuring Sense of Community: Beyond Local Boundaries. *The Journal of Primary Prevention*, 18(2), 193-212.
- Bismark, M., Morris, J., Thomas, L., Loh, E., Phelps, G., & Dickinson, H. (2015). Reasons and remedies for under-representation of women in medical leadership roles: a qualitative study from Australia. *BJM Open*, 5(11).
- Bisson, C. (1997). *The effects of varying the sequence of categories of adventure activities on the development of group cohesion*. (Ph.D Dissertation), University of Northern Colorado, Greeley.

- Bisson, C. (1998). *Sequencing adventure activities: A new perspective*. Paper presented at the Association For Experiential Educations International Conference, Lake Tahoe, NV.
- Bisson, C. (1999). Sequencing the adventure experience. *Adventure programming*, 205-214.
- Bjorklund, D. F., & Bering, J. M. (2008). The evolved child - Applying evolutionary developmental psychology to modern schooling. *Learning and Individual Differences*, 12(4).
- 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
- 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
- Bogner, F. X. (2002). The influence of a residential outdoor education programme to pupil's environmental perception. *European Journal of Psychology of Education*, 17(1).
- Boone, K. S., Beitel, P., & Kuhlman, J. S. (1997). The effects of the win/loss record on cohesion. *Journal of Sport Behavior*, 20(2), 125-134.
- Borland, J. F., Burton, L. J., & Kane, G. M. (2014). *Sport Leadership in the 21st Century*. Burlington, MA: Jones & Bartlett Publishers
- Boud, D., Keogh, R., & Walker, D. (1985). Reflection: Turning experience into learning. In D. Boud, R. Keogh & D. Walker (Eds.), *Introduction: What is reflection in learning* (pp. 7-17). London: Kogan Page.
- Boulware, D. R., Forgey, W. W., & Martin, W. J. (2003). Medical risks of wilderness hiking. *The American journal of medicine*, 114(4), 288-293.
- Boyd-Franklin, N., & Bry, B. H. (2000). *Reaching out in family therapy: Home-based, school and community interventions*. New York, NY: Guilford Press.
- Boyes, M. A., & O'Hare, D. (2003). Between safety and risk: A model for outdoor adventure decision making. *Journal of Adventure Education and Outdoor Learning*, 3(1), 63-76. doi: 10.1080/14729670385200251
- Boyle, I. T. (2002). *The impact of adventure-based training on team cohesion and psychological skill development in elite sporting team*. (Phd Dissertation), University of Wollongong, Sydney.

- Brackenreg, M., Luckner, J. L., & Pinch, K. (1994). Essential skills for processing adventure experiences. *Journal of Experiential Education*, 17(3), 45-47.
- Brawley, L. R., Carron, A. V., & Widmeyer, W. N. (1987). Assessing the cohesion of teams: Validity of the group environment questionnaire. *Journal of Sport Psychology*, 9(1), 275-294.
- Breunig, M. C., & O'Connell, T. S. (2010). The impact of outdoor pursuits on college students' perceived sense of community. *Journal of Leisure Research*, 42(4), 551-572.
- Breunig, M. C., O'Connell, T. S., Todd, S., Young, A., Anderson, L., & Anderson, D. (2007). *Psychological sense of community and group cohesion on wilderness trips*. Paper presented at the The 35th Annual Association for Experiential Education's International Conference's 2007 Little Rock, AK.
- Brody, M., & Tomkiewicz, W. (2002). Park visitors' understandings, values and beliefs related to their experience at Midway Geyser Basin, Yellowstone National Park, USA *International Journal of Science Education*, 24(11), 1119-11141.
- Bronson, J., Gibson, S., Kichar, R., & Priest, S. (1992). Evaluation of team development in a corporate adventure training program. *The Journal of Experiential Education*.
- Brookes, A. R. (2006). *Situationist outdoor education in the country of lost children*. (Phd Dissertation), Deakin University, Melbourne.
- Brown, M. (2008). Comfort Zone: Model or metaphor? . *Australian Journal of Outdoor Education*, 12(1), 3-12.
- Brown, M. (2010). Transfer: Outdoor adventure education's Achilles heel? Changing participation as a viable option. *Australian Journal of Outdoor Education*, 14(1), 13-22.
- Brown, S. (2007). *An exploration into outdoor education*. University of Otago.
- Bunting, C. J. (2006). *Interdisciplinary teaching through outdoor education*. Champaign: Human Kinetics.
- Burke, P. (2006). *Contemporary social psychological theories*. Stanford, CA: Stanford University Press.
- Buttel, F. (1992). Environmentalization: Origins, processes, and implications for rural social change. *Rural Sociology*, 57, 1-27.
- Callow, N., & Smith, M. J. (2009). Measurement of transformational leadership and its relationship with team cohesion and performance level. *Journal Of Applied Sport Psychology*, 21, 395-412.

- Calogiuri, G., & Chroni, S. (2014). The impact of the natural environment on the promotion of active living: An integrative systematic review. *BMC Public Health*, 14, 873. doi: <http://dx.doi.org/10.1186/1471-2458-14-873>
- 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 Scientific Research Symposium, University of Wisconsin.
- Carron, A. V. (1982). Cohesiveness in sport groups: Interpretations and considerations. *Journal of Sport Psychology*, 4, 123-138.
- Carron, A. V., & Brawley, L. R. (2000). Cohesion: conceptual and measurement issues. *Small Group Research*, 31(1), 89-106.
- Carron, A. V., Brawley, L. R., Eys, M. A., Bray, S., Dorsch, K., Estabrooks, P., . . . Spink, K. S. (2003). Do individual perceptions of group cohesion reflect shared beliefs?: An empirical analysis. *Small Group Research*, 34(4).
- Carron, A. V., Brawley, L. R., & Widmeyer, W. N. (1998). Measurement of cohesion in sport and exercise. In J. L. Duda (Ed.), *Advances in Sport and Exercise Psychology Measurement* (pp. 213-226). Morgantown, WV: Fitness Information Technology.
- Carron, A. V., Brawley, L. R., & Widmeyer, W. N. (2002). *The Group Environmental Questionnaire: Test manual*. West Virginia: West Virginia University.
- Carron, A. V., Burke, S. M., & Eys, M. A. (2002). Team cohesion and team success in sport. *Journal of Sports Sciences*, 20(2).
- Carron, A. V., Colman, M. M., Wheele, J., & Steven, D. (2002). Cohesion and performance in sport: A meta analysis. *Journal Of Sport Exercise & Psychology*, 24, 168-188.
- Carron, A. V., Eys, M. A., & Burke, S. M. (2007). Team cohesion. In D. L. S. Jowett (Ed.), *Social psychology in sport* (pp. 91-102). Champaign, IL: Human Kinetics.
- Carron, A. V., Hausenblas, H. A., & Eys, M. A. (2005). *Group dynamics in sport* (3rd ed.).
- Carron, A. V., & Spink, K. A. (1993). Team building in an exercise setting. *The Sport Psychology*, 7(1).
- Carron, A. V., Widmeyer, W. N., & Brawley, L. R. (1985). The development of an instrument to assess cohesion in sport teams: The Group Environment Questionnaire. *Journal of Sport Psychology*, 7.

- Caruso, R., Biancosino, B., Borghi, C., Marmai, L., Kerr, I. B., & Grassi, L. (2013). Working With the 'Difficult' Patient: The Use of a Contextual Cognitive-Analytic Therapy Based Training in Improving Team Function in a Routine Psychiatry Service Setting. *Community Mental Health Journal, 49*(6), 722-727. doi: <http://dx.doi.org/10.1007/s10597-012-9579-x>
- Cason, D., & Gillis, H. L. (1994). A meta-analysis of outdoor adventure programming with adolescents. *Journal of Experiential Education, 17*, 40-47.
- Çengelci, T. (2013). Social studies teachers' views on learning outside the classroom. *Educational Sciences: Theory & Practice, 13*(3), 1836-1841.
- Chang, A., & Bordia, P. (2006). A multi-dimensional approach to the group cohesion - group performance relationship. *Small Group Research, 37*(4).
- Chen, C.-C. (2002). *The impact of recreation sports facilities on university student's social interaction and campus culture*. (3053177 Ph.D.), University of the Incarnate Word, Ann Arbor. Retrieved from <http://search.proquest.com/docview/305456308?accountid=27932>
ABI/INFORM Complete; ProQuest Central database.
- Christiana, R. W. (2014). "I'd rather dance outside": A phenomenological examination of youth experiences in outdoor, noncompetitive physical activity. *The Qualitative Report, 19*(46), 1-16.
- Clark, D. (2004). Tuckman team work survey. <http://www.nwlink.com/~donclark/leader/teamsuv.html>.
- Clawson, M., & Knetsch, J. L. (1966). *Economics of outdoor recreation*. Baltimore: Johns Hopkins Press.
- Clawson, M., & Knetsch, J. L. (Eds.). (1974). *Leisure in modern America*. New Jersey: Prentice-Hall.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Concoron, P. B. (1999). Formative influences in the lives of environmental educators in the United States. *Environmental Education Research, 5*(2).
- Conrad, D., & Hedin, D. (1982). The impact of experimental education on adolescent development. *Child and Youth Services, 4*, 57-76.
- Couch, D. R. (1995). Four steps for conducting a pre-group screening interview. *Journal for Specialists in Group Work, 20*, 18-25.

- Cox, R. H. (2007). *Sport psychology: Concepts and applications* (6 ed.). New York: McGraw Hill.
- Cranton, P. (1994). *Understanding and promoting transformative learning: A guide for educators of adults*. San Francisco: Jossey-Bass.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (Second ed.). California: Sage Publication, Inc.
- Cumming, W. T., & Corney, W. (1987). A conceptual model of gambling behavior: Fishbein's Theory of Reasoned Action. *Journal of Gambling Behavior*, 3(3).
- Curriculum Development Centre. (2002). *Huraian sukatan pelajaran kurikulum bersepadu sekolah rendah: Pendidikan jasmani (Integrated curriculum syllabus of primary school: Physical education)*. Kuala Lumpur: Ministry of Education.
- Davis, A., Taylor, J., & Cohen, E. (2015). Social bonds and exercise: Evidence for a reciprocal relationship. *PLoS ONE*, 10(8), e0136705. doi: 10.1371/journal.pone.0136705
- DeGraaf, D. G., Jordan, D., & DeGraaf, K. H. (1999). *Programming for parks, recreation, and leisure services*. State College, PA: Venture Publishing.
- Dewey, J. (1938). *Experience and education*. New York: Macmillan.
- Dickson, T. J., Chapman, J., & Hurrell, M. (2000). Risk in outdoor activities: the perception, the appeal, the reality. *Australian Journal of Outdoor Education* 4(2).
- Digby, C. L. B. (2010). *An examination of the impact of non-formal and informal learning on adult environmental knowledge, attitudes, and behaviors*. (PhD Dissertation), University of Minnesota, Minnesota.
- Dimitrov, D. M., & Rumrill, P. D. (2003). Pretest-posttest designs and measurement of change. *IOS Press*, 20, 159–165.
- Dingle, M. (2006). Knowing our place: A perspective on the contribution of outdoor education and its relationship with the outdoor recreation industry. *Australian Journal of Outdoor Education*, 10(1), 54-57.
- Dion, K. L., & Evans, C. R. (1992). On cohesiveness: Reply to Keyton and other critics of the construct. *Small Group Research*, 23, 242-250.
- Doherty, K. (1995). A qualitative analysis of three teaching styles. *Journal of Experiential Education*, 18(1), 12-19.

- Donaldson, G. E., & Donaldson, L. E. (1958). Outdoor education: A definition. *Journal of Health, Physical Education and Recreation*, 29(17), 63-76.
- Donnell, C. R. O., & Yamauchi, L. A. (2005). *Culture and context in human behavioural change: Theory, research, and application*. New York: Peter Lang Publishing, Inc.
- Dror, I. E. (2011). *Technology Enhanced Learning and Cognition*. Amsterdam: John Benjamins Publishing.
- Emily, G. (2015). *Exploring the impact of diverse urban environments on well-being*. (Master Thesis), University of Waterloo, Waterloo, Ontario, Canada.
- Estabrooks, P., & Carron, A. V. (2000). The Physical Activity Group Environment Questionnaire: An instrument for the assessment of cohesion in exercise classes: An instrument for the assessment of cohesion in exercise classes. *Group Dynamics: Theory, Research, and Practice*, 2(1).
- Estes, C., & Ewert, A. (1988). Enhancing mixed-gender programming: Considerations for experiential educators. *The Bradford Papers Annual*, 3, 34-43.
- Evans, N. J., & Jarvis, P. A. (1986). The group attitude scale: A measure of attraction to group. *Small Group Behavior*, 2.
- Ewert, A. (1992). Group development through experiential education: Does it happen? *The Journal of Experiential Education*, 15(2).
- Ewert, A., Greg, P., & Sibthorp, J. (2005). Early-life outdoor experiences and an individual's environmental attitudes. *Leisure Sciences*, 27(1).
- Ewert, A., & McAvoy, L. (2000). The effects of wilderness settings on organized groups: A state-of-knowledge paper. *USDA Forest Service*, 3(15).
- Ewert, A., Mitten, D. S., & Overholt, J. R. (2014). *Natural environments and human health*. London, UK: CABI.
- Ewert, A., & Yoshino, A. (2008). *An initial exploration of the influence of short-term adventure-based experiences on levels of resilience* Paper presented at the Coalition for Education in the Outdoors, Indiana University's Outdoor Center.
- Eys, M. A., Lougheed, T., Bray, S. R., & Carron, A. V. (2009). Perceptions of cohesion by youth sport participants. *Kinesiology and Physical Education*, 9.

- Eys, M. A., Ritchie, S., Little, J., Slade, H., & Oddson, B. (2008). Leadership status congruency and cohesion in outdoor expedition groups. *The Journal of Experiential Education*, 31(1), 78-94.
- Fabrizio, S. M., & Neill, J. T. (2005). Cultural adaptation in outdoor programming. *Australian Journal of Outdoor Education*, 9(2), 44-56.
- Fewkes, A. M., & McCabe, M. (2012). Facebook: Learning tool or distraction? . *Journal of Digital Learning in Teacher Education*, 28(3), 92-98.
- Finkenberg, M. E., Shows, D., & DiNucci, J. M. (1994). Participation in adventure-based activities and self-concepts of college men and women. *Perceptual and Motor Skills*, 78(3), 1119-1122.
- Fiskum, T. A., & Jacobsen, K. (2012). Outdoor education gives fewer demands for action regulation and an increased variability of affordances. *Journal of Adventure Education & Outdoor Learning*, 1(24).
- Fletcher, T. B., & Meyer, B. B. (2009). Cohesion and Trauma: An Examination of a Collegiate Women's Volleyball Team. *Journal of Humanistic Counseling, Education and Development*, 48(2), 173-194.
- Foley, J. M. (2009). *Measuring student learning outcomes on Outward Bound courses and associated independent variables*. (PhD Dissertation), Colorado.
- Ford, P. (1986). Outdoor education: Definition and philosophy.
- Ford, P. (1988). Outdoor recreation: The holistic leisure pursuit. *Bradford Papers Annual*, 3, 44-49.
- Ford, P., & Blanchard, J. (1985). *Leadership and administration of outdoor pursuits*. State College, PA: Venture Publishing.
- Forsyth, D. (2009). *Group dynamics* (5th ed.). Pacific Grove, CA: Brooks and Cole.
- Fortmann, L., & Kusel, J. (1990). New voices, old beliefs: Forest environmentalism among new and long-standing rural residents. *Rural Sociology*, 55, 214-232.
- Furman, N., & Sibthorp, J. (2012). Controversial issues in adventure programming. In B. Martin & M. Wagstaf (Eds.), *Adventure programming and learning transfer: An uneasy alliance*. Champaign, Illinois: Human Kinetics.
- Furumo, K., Buxton, M., de Pillis, E., Higa, K., & Furumo, H. (2014). Differences between male and female communications and conflict management styles in virtual teams. *Journal of Management and Marketing Research*, 17, 1-7.

- Gager, R. (1978). *Experiential education: Strengthen the learning process*. Colorado Outward Bound School. Denver, CO.
- Gardner, D. E., Shields, D. L., Bredemeier, B. J., & Bostrom, A. (1996). The relationship between perceived coaching behaviors and team cohesion among baseball and softball players. *The Sport Psychologist, 70*, 367-381.
- Garst, B. A., Baughman, S., Franz, N. K., & Seidel, R. W. (2013). Strengthening families: Exploring the impacts of family camp experiences on family functioning and parenting. *The Journal of Experiential Education, 36*(1), 65-77.
- Garst, B. A., Scheider, I., & Baker, D. (2001). Outdoor adventure program participation impacts on adolescent self-perception. *The Journal of Experiential Education, 24*(1).
- Gass, M. A. (1987). The effects of a wilderness orientation program on college students. *Journal of Experiential Education, 10*(2), 30-33.
- Gass, M. A. (2005). Comprehending the value structures influencing significance and power behind experiential education research. *Journal of Experiential Education, 27*(3), 286-296.
- Gass, M. A., Garvey, D. E., & Sugerman, D. A. (2003). The long-term effects of a first-year student wilderness orientation program. *Journal of Experiential Education, 26*(1).
- Gassner, M. E. (2006). *Investigating the long-term impact of adventure education: A retrospective study of outward bound Singapore's classic 21-day challenge course*. (PhD Dissertation), University Of Minnesota, Minnesota.
- Gersick, C. (1988). Time and transition in work teams: Toward a new model of group development. *Academy of Management Journal, 31*(1), 9-41.
- Gilbertson, K. (2006). *Outdoor education: Methods and strategies*: Human Kinetics.
- Glass, J. S., & Benshoff, J. M. (2002). Facilitating group cohesion among adolescents through challenge course experiences. *The Journal of Experiential Education, 25*(2), 268-277.
- Glass, J. S., & Dotson-Blake, K. P. (2010). Adventure based counseling and school-based family counseling: Incorporating experiential education into the schools *International Journal for School-Based Family Counseling 2*.
- Godbey, G. (1999). *Leisure in your life, an exploration* (5th ed.). State College, PA: Venture Publishing, Inc.

- Goldberg, A. (2003). *The associations of recreation and leisure with community satisfaction*. (Master Thesis), West Virginia University Morgantown.
- Grocott, A. C., & Hunter, J. A. (2009). Increases in global and domain specific self-esteem following a 10-day developmental voyage. *Social Psychology of Education, 12*(4), 443-459.
- Gundersen, S. (2013). *Relationship of extra curricular group activities on staff group cohesion at summer camp*. (Master Dissertation), Northwest Missouri State University Maryville, Missouri
- Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review, 72*(3).
- Gustafssona, P. E., Szczepanskib, A., Nelsonb, N., & Gustafssonb, P. A. (2011). Effects of an outdoor education intervention on the mental health of schoolchildren. *Journal of Adventure Education and Outdoor Learning, 1*–17.
- Haddock, C. (1993). *Managing risks in outdoor activities*. Wellington NZ Mountain Safety Council Inc.
- Hair, J. F., Education, P., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate data analysis: Pearson new international edition*: Pearson Education, Limited.
- Halbrook, M., Blom, L. C., Hurley, K., Bell, R. J., & Holden, J. E. (2012). Relationships among motivation, gender, and cohesion in a sample of collegiate athletes. *Journal of Sport Behavior, 35*(1), 61-77.
- Hall, A. (2007). *Sport psychology: Building group cohesion, performance, and trust in athletic teams* Capella University Bullard, TX
- Haluza-Delay, R. (2001). Nothing here to care about: Participant constructions of nature following a 12-day wilderness program. *The Journal of Environmental Education, 23*(4).
- Hammerman, D., Hammerman, W., & Hammerman, E. (2001). *Teaching in the outdoors* (5th ed.). Illinois: Interstate Publishers inc.
- Hanna, G. (1995). Wilderness related environmental outcomes of adventure and ecology education programming. *Journal of Environmental Education, 27*(1).
- Harlow, L., & Duerr, S. (2013). Multivariate Analysis of Variance. In T. Teo (Ed.), *Handbook of Quantitative Methods for Educational Research* (pp. 123-143): SensePublishers.

- Harris, P. B., Werner, C. M., Brown, B. B., & Ingebritsen, D. (1995). Relocation and privacy regulation: A cross-cultural analysis. *Journal of Environmental Psychology, 15*, 311-320.
- Hartig, T., Evans, G., Jamner, L. D., Davis, D. S., & Garling, T. (2003). Tracking restoration in natural and urban field settings. *Journal of Environmental Psychology, 23*, 109-123.
- Hatch, K. D., & McCarthy, C. J. (2005). Exploration of challenge courses' long-term effects on members of college student organizations. *The Journal of Experiential Education, 27*(3), 245-264.
- Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and Outward Bound: Out-of-class experiences that make a lasting difference. *Review of Educational Research, 67*(1), 43-87.
- Haynie, W. J. (2003). Effects of multiple-choice and matching tests on delayed retention learning. *Journal of Industrial Teacher Education, 40*(2), 7-22.
- Haynie, W. J. (2004). Effects of pre-tests and post tests on delayed retention learning in technology education. *North Carolina Journal of Technology Teacher Education Quarterly, 1*.
- Henderson, K. A. (2001). Camping gives kids an endless world of good. *Parks & Recreation, 36*(11).
- Hergenhahn, B. R., & Olson, M. H. (1997). *An introduction to theories of learning* (5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Herre, C. (2010). *Promoting team effectiveness: How leaders and learning processes influence team outcomes*. (PhD Dissertation), Friburgensis University, Germany.
- Heuze, J.-P., Raimbault, N., & Fontayne, P. (2006). Relationships between cohesion, collective efficacy and performance in professional basketball teams: An examination of mediating effects. *Journal of Sports Sciences, 24*(1).
- Heyneman, S. P., Kraince, R., Lesko, N., & Bastedo, M. (2007). Higher education and social cohesion: A comparative perspective. In P. G. Altbach & P. M. Perterson (Eds.), *higher education in the new century - global challenges and innovative ideas*. Boston: Boston College.
- Higgins, P., & Loynes, C. (1997). Toward consensus on the nature of outdoor education. *Practical and Informative Adventure Education, 1*(4).
- Ho, S. (2003). *The effects of three-day adventure-based camping programmes on the perceptions of primary five Singaporean pupils' life effectiveness*. (Master Degree Thesis), Nanyang Technological University, Singapore.

- Hogg, R. V., & Tanis, E. (2008). *Probability and statistical inference*. New York.
- Horn, T. S. (2008). *Advances in sport psychology*. Champaign, IL: Human Kinetics.
- Humberstone, B., Prince, H., & Henderson, K., A. (Eds.). (2015). *Routledge international handbook of outdoor studies*. New York: Taylor and Francis Group.
- Hunter, L. M., Hatch, A., & Johnson, A. (2004). Cross-national gender variation in environmental behaviors. *Social Science Quarterly*, 85(3).
- Hussin, S., & Dewan Bahasa dan Pustaka. (1993). *Pendidikan di Malaysia: sejarah, sistem, dan falsafah*. Dewan Bahasa dan Pustaka, Kementerian Pendidikan, Malaysia.
- Hutchison, E. D. (2010). *Dimensions of human behavior: Person and environment*. SAGE Publications.
- Ibrahim, H., & Cordes, K. A. (2008). *Outdoor recreation: Enrichment for a life time* (3rd ed.). Champaign, IL: Sagamore Publishing.
- Ishak, R. (2005). *Inilah kurikulum sekolah (This is school curriculum)*. Kuala Lumpur: PTS Publisher.
- Iturbide, L. M., Elosua, P., & Yanes, F. (2010). A measure of team cohesion in sport. Spanish adaptation of Group Environment Questionnaire (GEQ). [Medida de la cohesión en equipos deportivos. Adaptación al español del Group Environment Questionnaire (GEQ)]. *Psicothema*, 22(3), 482-488.
- Jaffry, Z. (2012). *The impact of National Service Program in Perlis state on group cohesion*. (Master Thesis), Universiti Putra Malaysia, Serdang.
- Jaffry, Z., Mazuki, M. Y., & Md Amin, M. T. (2012). The impact of adventure based activity at malaysian national service training programme on team cohesion: A demographic analysis *International Journal of Sport Management, Recreation & Tourism*, 10, 64-79.
- James, M. R., & Freed, B. S. (1989). A sequential model for developing group cohesion in music therapy. *Music Therapy Perspective*, 7, 28-34.
- Jean-Philippe, H., Nicolas, R., & Paul, F. (2006). Relationships between cohesion, collective efficacy and performance in professional basketball teams: An examination of mediating effects. *Journal of Sport Science*, 24(1).

- Jenkins, J. M., & Alderman, B. L. (2011). Influence of sport education on group cohesion in university physical education. *Journal of Teaching in Physical Education, 30*, 214-230.
- Jensen, C. R., & Guthrie, S. (2006). *Outdoor recreation in America* (6th ed.). New York: Human Kinetics
- 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.
- Jones, R. E., & Dunlap, R. E. (1992). The social bases of environmental concern: Have they changed over time? *Rural Sociology, 57*, 28-47.
- Jones, R. E., Fly, M. J., & Cordell, H. K. (1999). How green is my valley? Tracking rural and urban environmentalism in the southern Appalachian ecoregion. *Rural Sociology, 64*, 482-499.
- Jones, R. E., Fly, M. J., Talley, J., & Cordell, H. K. (2003). Green migration into rural America: The new frontier of environmentalism? *Society and Natural Resources, 16*, 221-238.
- Jordan, D. J. (1990). *Gender Bias in Perceptions of Female and Male Outdoor Leaders*. Paper presented at the Sixth Canadian Congress on Leisure Research, University of Waterloo, Ontario.
- Junco, R. (2012). The relationship between frequency of Facebook use, participation in Facebook activities, and student engagement. *Computers & Education, 58*, 162-171.
- Kamphoff, C. S., Gill, D. L., & Huddleston, S. (2005). Jealousy in sport: Exploring jealousy's relationship to cohesion. *Journal of Applied Sport Psychology, 17*.
- Kaplan, R., & Kaplan, S. (1989). *The Experience of Nature*. New York, NY: Cambridge University Press.
- Kay, S. (1996). *Effects of gender on small group cohesion: Mackenzie's Group Climate Questionnaire analyzed*. (9710240 Ph.D.), Brigham Young University, Ann Arbor. Retrieved from <http://search.proquest.com/docview/304302278?accountid=27932> ProQuest Dissertations & Theses Global database.
- Kaymak, T. (2011). Group cohesion and performance: A search for antecedents. *E+M Ekonomie a Management(4)*, 78-91. doi: 10.1037/0021-9010.75.6.698
- Kilty, K. M. (2000). *A study of cohesion in women's sports teams using adventure programming*. (9965676 Ed.D.), Boston University, Ann Arbor. Retrieved from

<http://search.proquest.com/docview/304584218?accountid=13155>
ProQuest Dissertations & Theses Full Text database.

- Kimball, R. O., & Bacon, S. B. (Eds.). (1993). *Adventure Therapy: Therapeutic applications of adventure programming*. Dubuque, IA: Kendall/Hunt Publishing Company.
- Klassen, M. J. (2010). *Connectedness to nature: Comparing rural and urban youth's relationship with nature*. (PhD Thesis), Royal Roads University.
- Knapp, D. (2000). The Thessaloniki Declaration: A Wake-Up Call for Environmental Education? *The Journal of Environmental Education*, 31(3), 32-39.
- Knapp, D., & Poff, R. (2001). A qualitative analysis of the immediate and short-term impact of an environmental interpretive program. *Environmental Education Research*, 7(1), 55-65. doi: 10.1080/13504620124393
- Kolb, A. Y., & Kolb, D. A. (2008). Experiential learning theory: A dynamic holistic approach to management learning, education and development. In S. J. Armstrong & C. Fukami (Eds.), *Handbook of management learning, education and development*. London: Sage Publications.
- Kolb, D. A. (1984). *Experiential learning: experience as the source of learning and development*. Prentice-Hall.
- Krumpe, E. E. (2006). *Elements of a behavioral definition of outdoor recreation*. University of Idaho. Retrieved from <http://www.cnr.uidaho.edu/css287/Behavioral%20Definition2003.pdf>.
- Lai, K. C. (1999). Freedom to learn: A study of the experiences of secondary school teachers and students in a geography field trip. *International Research in Geographical and Environmental Educational Evaluation and Policy Analysis*, 8(3), 239-255.
- Landers, D., & Leuschen, G. (1974). Team performance outcome and cohesiveness of competitive co-acting groups. *International review of Sport Sociology*, 9, 57-69.
- Lane, J. (2008). *The effectiveness of an adventure travel summer camp program on the life effectiveness of adolescents*. (Master Disertation), University of New Hampshire, New England.
- Larson, B. A. (2007). Adventure camp programs, self-concept, and their effects on behavioral problem adolescents. *Journal of Experiential Education*, 29(3).
- Law, B. (1998). *Environmental education is education for the future*. Paper presented at the Third National Outdoor Education Conference The Ara Maturanga-Pathway to Learning, Auckland College of Education.

- Lawrence-Wood, E., & Raymond, I. (2011). Exploring post-program psychological adjustment for adult staff facilitating a wilderness adventure program. *Journal of Experiential Education*, 33(4), 323–337.
- Leitner, M. J., & Leitner, S. F. (1996). *Leisure enhancement* (Vol. 2nd). New York: Haworth Press.
- Leitner, M. J., & Leitner, S. F. (1996). *Leisure enhancement* (2nd ed.). New York: The Haworth Press.
- Leupp, A. (2007). Gendered wilderness: The effect of outdoor education on girls' and boys' self-concept. *An Undergraduate Research Journal*, 2(1).
- Lewis, T. G. (2009). *Youth and nature: Assessing the impact of an integrated wellness curriculum on nature based play and nature appreciation for youth in out-of-school time recreation programming*. (PhD Dissertation), University of Minnesota, Minnesota.
- Lindberg, A. E. (2009). *Curricular connections between outdoor environmental education and classrooms: A Camp Colman case study*. (Master Thesis), The Evergreen State College
- Liu, C. C., Liu, K. P., Chen, W. H., Lin, C. P., & Chen, G. D. (2011). Collaborative storytelling experiences in social media: Influence of peer-assistance mechanisms. *Computers & Education*, 57(1544-1556).
- Liu, T. Y., Tan, T. H., & Chu, Y. L. (2009). Outdoor natural science learning with an RFID-supported immersive ubiquitous learning environment. *Educational Technology & Society*, 12(4), 161-175.
- Lopes, M. C. (2005). *Ludicity-a theoretical term*. Paper presented at the Sixth Annual Convention of Media Ecology Association, Fordham University, New York.
- Luckner, J. L. (1985). *Outdoor-adventure education and the hearing impaired: An investigation of the effects of self-concept and locus of control*. (8519441 Educat.D.), University of Northern Colorado, Ann Arbor. Retrieved from <http://search.proquest.com/docview/303403980?accountid=13155> ProQuest Dissertations & Theses Full Text database.
- Lugg, A. (1999). Directions in outdoor education curriculum. *Australian Journal of Outdoor Education*, 4(1), 25-32.
- Lund, M. (2002). Adventure education: Some semantics. Retrieved 25 November 2009 from <http://www.artsci.gmcc.ab.ca/courses/peds205ml/adventureeducation.html>

- Lund, M. (2004). Adventure education: Some semantics. Retrieved 25 January 2013
<http://www.artsci.gmcc.ab.ca/courses/peds205ml/adventureeducation.html>
- Lynch, J. D. (2011). *Ecocentric outdoor education: Expanding curricula through the language of ecopsychology*. (1505022), Northern Arizona University, Ann Arbor. Retrieved from
<http://search.proquest.com/docview/916919821?accountid=27932>
- Malcarne, B. K. (2012). *Exploring group cohesion in a higher education field experience*. (PhD Thesis), Clemson University, Ann Arbor. Retrieved from
<http://search.proquest.com/docview/1285529894?accountid=27932>
- Maramba, D. C., & Museus, S. D. (2013). Examining the Effects of Campus Climate, Ethnic Group Cohesion, and Cross-Cultural Interaction on Filipino American Students' Sense of Belonging in College. *Journal of College Student Retention: Research, Theory & Practice*, 14(4).
- Marcus, D. E., & Overton, W. F. (1978). The development of cognitive gender constancy and sex roles preferences. *Child Development*, 49, 434-444.
- Marius, C., & Claudia, L. R. (2009). The relationship between perceived coach leadership behaviours and team cohesion among Romanian athletes. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte*, 4(2), 217-232
- Marjan, L., Arsalan, A., & Ashkan, L. (2013). Lifelong learning and art. *Procedia - Social and Behavioral Sciences*, 116(2014), 4047-4051.
- Martin, A. J. (2001). *Towards the next generation of experiential education programmes: A case study of Outward Bound* (PhD Thesis), Massey University, Palmerston North, New Zealand.
- Martin, A. J. (2003). Adding value to the Outward Bound educational process. *Outward Bound International*, 11(1).
- Martin, B., Bright, A., Cafaro, P., Mittelstaedt, R., & Bruyere, B. (2007). Cultivating environmental virtue among 7th and 8th graders in an expeditionary learning outward bound school. *Journal of Experiential Education*, 30(3), 294.
- Martin, P. (2001). 'What is a profession?' *Journal of Outward Bound Canada*, 8(1), 5-11.
- Martin, P. (2010). Outdoor education and the national curriculum in Australia. *Australian Journal of Outdoor Education*, 14, 3-11.
- Martin, P., Cashel, C., Wagstaff, M., & Breunig, M. (2006). *Outdoor leadership: Theory and practice*. Champaign: Human Kinetics Publishers.

- Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of Management*, 34(3), 410-476.
- Mazuki, M. Y. (2010). *The impacts of outdoor education toward group cohesion and outdoor education attitudes* (Master Thesis), Universiti Teknologi MARA, Shah Alam.
- Mazuki, M. Y., Azlizam, A., Md Amin, M. T., & Jaffry, Z. (2014). Outdoor education: Its relationships to outdoor recreation. *Malaysian Journal of Sport, Recreational and Education*, 1(1), 60-64.
- Mazuki, M. Y., Azlizam, A., Siti Suriawati, I., & Abdullah, b. M. (2015). Outdoor Education: A Path to Greater Group Cohesion. In M. Manohar, I. Siti Suriawati, A. A. Nor Akmar, L. A. L. Evelyn & R. H. Khalid (Eds.), *Adventure and ecotourism in Malaysia*. Universiti Putra Malaysia: Penerbit UPM.
- McAvoy, L. H., Mitten, D. S., Stringer, L. A., Steckart, J. P., & Sproles, K. (1996). *Group development and group dynamics in outdoor education*. Paper presented at the Coalition for Education in the Outdoors Research Symposium Proceedings, Bradford Wood, Indiana.
- McGrath, J. E. (1964). *Social psychology: A brief introduction*. New York: Holt, Rinehart and Winston.
- McKenzie, M. (2000a). *Gaining a better understanding of how Outward Bound Western Canada course outcomes are achieved: A research study*. (Master Thesis), Brock University, St. Catherines, Ontario, Canada. Retrieved from <http://wilderdom.com/pdf/McKenzie2000MastersThesis.pdf> wilderdom.com database.
- McKenzie, M. (2000b). How are adventure education program outcomes achieved?: A review of literature. *Australian Journal of Outdoor Education*, 5(1), 19-26.
- McKenzie, M. (2003). Beyond "The Outward Bound Process:" Rethinking student learning. *The Journal of Experiential Education*, 26(1), 8-23.
- McLean, D., & Hurd, A. (2012). *Kraus' recreation and leisure in modern society* (9th ed.). Ontario: Jones & Bartlett Learning.
- McLeod, J., & Treuer, K. v. (2013). Towards a cohesive theory of cohesion. *International Journal of Business and Social Research*, 3(12).
- McMillan, M., Hoban, T. J., Clifford, W. B., & Brant', M. R. (1997). Social and demographic influences on environmental attitudes. *Southern Rural Sociology*, 13(1).

- Md Amin, M. T. (2010). *Effect of a residential outdoor education camp on improvement knowledge and attitudes of first year universities students from selected Malaysian universities*. (PhD Thesis), Universiti Putra Malaysia, Serdang.
- Md Amin, M. T., Azlizam, A., & Jaffry, Z. (2011). Kerelevanan pendidikan luar dalam sistem pendidikan tinggi di Malaysia (Relevance of outdoor education in the higher education system in Malaysia). *ASEAN Journal of Teaching and Learning in Higher Education*, 3(1).
- Md Amin, M. T., Azlizam, A., Raja Nor Safinas, R. H., Nelfianty, M. R., & Mazuki, M. Y. (2010). Residential outdoor education and environmental attitudes: an examination in a Malaysian University. *Journal of Outdoor Recreation, Education, and Leadership*, 2(3), 198-216.
- Md Amin, M. T., Boyes, M. A., & Maxted, J. (2007). *Residential outdoor education and environmental attitudes: A case study* Paper presented at the 5th Australian National Outdoor Education Conference, Victoria, Melbourne.
- Mead, S., Hilton, D., & Curtis, L. (2001). Peer support: A theoretical perspective. *Psychiatric Rehabilitation Journal*, 25(2), 134-141
- Medina, J. (2015). Experiences outside of institutional training that contribute to outdoor leadership development (Doctoral Thesis). Retrieved 2 February 2016, from The Outdoor Professional's Resource The Outdoor Professional's Resource
- Mezirow, J. (1995). Transformative theory of adult learning. In M. Welton (Ed.), *In defense of the lifeworld*. Albany: State University of New York Press.
- Michael, A. G., Daniel, E. G., & Deborah, A. S. (2003). The long-term effects of a first-year student wilderness orientation program. *Journal of Experiential Education*, 26(1).
- Miles, J., & Shevlin, M. (2001). *Applying regression and correlation: A guide for students and researchers*. London: Sage.
- Milton, B., & Cleveland, E. (1995). Changing perceptions of nature, self, and others: A report on a park/school program. *Journal of Environmental Education*, 26(3), 32.
- Ministry of Education. (1956). *The Razak report*. Kuala Lumpur: Government Printers.
- Ministry of Education. (1999). *Panduan pengurusan pusat kokurikulum (Guide to manage co-curricular centre)*. Kuala Lumpur: Ministry of Education.

- Ministry of Education. (2001). *Proforma Pendidikan Luar (Outdoor education pro forma)*. Teacher Education Division. Ministry of Education. Kuala Lumpur.
- Ministry of Education. (2013a). *Executive summary: Malaysia education blueprint 2013-2025 (Preschool to to post secondary education)*. Putrajaya: Ministry of Education.
- Ministry of Education. (2013b). Falsafah pendidikan guru (Philosophy of teacher education). from http://web.moe.gov.my/ipgm/v2/index.php?option=com_content&view=article&id=98&Itemid=706&lang=en
- Mittelstaedt, R., Sanker, L., & VanderVeer, B. (1999). Impact of a week-long experiential education program on environmental attitude and awareness. *Journal of Experiential Education*, 22(3).
- Mohai, P. (1992). Men, women, and the environment: An examination of the gender gap in environmental concern and activism. *Society and Natural Resources*, 5(1-19).
- Mohd Taib, H., & Norlena, S. (2010). Cultivating personality development through outdoor education programme: the Malaysia experience. *Procedia - Social and Behavioral Sciences*, 9(0), 228-234. doi: <http://dx.doi.org/10.1016/j.sbspro.2010.12.141>
- Mohd Taib, H., & Norlena, S. (2013). Applying elements of outdoor education in teacher education innovation *Asian Social Science*, 9(16).
- Mohd Taib, H., & Norlena, S. (2014). Promoting social skills through outdoor education and assessing its' effects. *Asian Social Science*, 10(5).
- Mohd Zainal Munshid, H., & Rosli, M. (2012). The relationship between group cohesiveness and performance: An empirical study of cooperatives movement in Malaysia. *International Journal of Cooperative Studies*, 1(1), 15-20.
- Mohsen, V., Reza, S., Mehrdad, M., Ali, O., & Mir, H. S. (2012). Relationship between coach's leadership styles and group cohesion in the teams participating in the 10th sport olympiad of male students *European Journal of Experimental Biology*, 2(4), 1012-1017.
- Moreland, R. L., Levine, J. M., & Wingert, M. L. (1996). Creating the ideal group: Composition effects at work. In E. Witte & J. H. Davis (Eds.), *Understanding Group Behavior* (Vol. 2, pp. 11-35). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Morrissey, J., & Manning, R. (2000). Race, residence and environmental concern: New Englanders and the White Mountain National Park. *Research in Human Ecology*, 7(1), 12-24.

- Mortlock, C. (1984). *The adventure alternative*. Cumbria: Cicerone Press.
- Mugford, A. L., & Tennant, L. K. (2005). *Flow in a team sport setting: Does cohesion matter?* Research. University of Kansas.
- Muhammad Norazizuddin, B. M. N. (2013). *Kesepaduan Kumpulan dalam program perkhemahan cabaran mutiara: Kajian terhadap program pendidikan luar Kementerian Pelajaran Malaysia, Anjuran Jabatan Pelajaran Pulau Pinang (Group cohesion in Mutiara Camp challenge: A Study of the Ministry of Education's outdoor education program organised by the Department of Education Pulau Pinang)*. (Master Disertation), Sultan Idris Education University, Tanjong Malim.
- Mullin, E. M. (2014). Relationship of Heterosexism and Team Cohesion in Women's Collegiate Athletics. *Research Quarterly for Exercise and Sport*, 85(S1), 1.
- Murphy, J. M. (2001). *Effect of a one-time team building exercise on team cohesion when working with a NCAA Division I women's basketball team*. (1412616), North Carolina State University, Ann Arbor. Retrieved from <http://search.proquest.com/docview/304715312?accountid=27932>
- Myers-Lipton, S. J. (1998). Effect of a comprehensive service-learning program on college students' civic responsibility. *Teaching Sociology*, 26(4).
- Nadler, R. S. (Ed.). (1993). *Adventure therapy: Therapeutic applications of adventure programming*. Dubuque, IA: Kendall/Hunt Publishing Company.
- Nagpal, J., Kumar, A., Kakar, S., & Bhartia, A. (2010). The development of 'quality of life instrument for indian diabetes patients (qolid) : A validation and reliability study in middle and higher income groups. *JAPI* 58, 295-304.
- Neill, J. (1997). *Gender: How does it effect the outdoor education experience?* . Paper presented at the Catalysts for Change: 10th National Outdoor Education Conference Proceedings, Collaroy Beach, Sydney, Australia.
- Neill, J. (2002). *Meta-analytic research on the outcomes of outdoor education*. Paper presented at the 6th Biennial Coalition for Education in the Outdoors Research Symposium, Bradford Woods. <http://www.wilderdom.com/research/researchoutcomesmeta-analytic.htm>
- Neill, J. (2003). Introduction to the life effectiveness questionnaire (LEQ). Retrieved 26 June 2013 <http://www.wilderdom.com/tools/leg/legintroduction.html#future>.
- Neill, J. (2004, 27 September 2004). When did Outdoor Education Begin? Retrieved 17 April, 2014, from

<http://www.wilderdom.com/history/WhenDidOutdoorEducationBegin.html>

Neill, J. (2008). What is Outdoor Education? Definition (Definitions). <http://wilderdom.com/definitions/definitions.html>

Neill, J., & Heubeck, B. (1995). *Insights into adolescents' mental health during Outward Bound programs*. Paper presented at the The 9th National Outdoor Education Conference, Gold Coast, Australia.

Nieuwenhuijsen, M. J., Kruize, H., Gidlow, C., Andrusaityte, S., Antó, J. M., Basagaña, X., . . . Grazuleviciene, R. (2014). Positive health effects of the natural outdoor environment in typical populations in different regions in Europe (PHENOTYPE): a study programme protocol. *BMJ Open*, 4(4). doi: 10.1136/bmjopen-2014-004951

Nold, J. (1978). *A primer on Outward Bound theory*. [Unpublish manuskrip]. Denver.

Nunnally, J. D. (1978). *Psychometric theory*. New York: McGraw-Hill.

Nunnally, J. D., & Bernstein, I. H. (1994). *Psychometric Theory*. New York, NY: McGraw Hill.

O'Bannon, P. M. (2000). *The effect of the outdoor experiential rope course on perceived team performance*. (Doctor of Education Phd dissertation), Florida International University, Miami, Florida.

O'Brien, J. (2008). Are we preparing young people for 21st -century citizenship with 20th-century thinking? A case for a virtual laboratory of democracy. *Contemporary Issues in Technology and Teacher Education*, 8(2).

O'Reilly, C. A., & Caldwell, D. F. (1985). The impact of normative social influence and cohesiveness on task perceptions and attitudes: A social information approaching approach. *Journal of Occupational Psychology*, 58, 193-206.

Olson, D. H., McCubbin, H. I., Barnes, H., Larsen, A., Muxem, M., & Wilson, M. (1985). *Family inventories*. St. Paul, MN: University of Minnesota, Family Social Science.

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*. (PhD Dissertation), Antioch university, California.

Outward Bound International. (1999). Outward Bound International. Retrieved 27 April, 2014, from <http://www.outwardbound.org/bro.htm>

- Outward Bound Malaysia. (2014, 2014). The history of Outward Bound Malaysia. Retrieved 26 April 2014, from <http://www.outwardbound.net/schools/malaysia/>
- Packiam-Alloway, T., & Alloway, R. G. (2012). The impact of engagement with social networking sites (SNSs) on cognitive skills. *Computers in Human Behavior, 28*, 1748-1754.
- Page, W. L. (2009). *The development of group cohesion as it relates to satisfaction with adult Sunday School*. (PhD Ed.D.), Kansas State University, Ann Arbor.
- Paisley, K., Jostad, J., Sibthorp, J., Pohja, M., Gookin, J., & Rajagopal-Durbin, A. (2014). Considering students' experiences in diverse groups: Case studies from the national outdoor leadership school. *Journal of Leisure Research, 46*(3), 329-341.
- Pallant, J. (2005). *SPSS Survival Manual: A step by step guide to data analysis using the SPSS program* (4th ed.). Australia: Agency Limited.
- Panga, S. S., & Grecia-de Vera, G. B. (2010). A look at a negotiation 2.0 classroom: Using adventure learning modules to supplement negotiation simulations. In C. Honeyman, J. Coben & G. De Palo (Eds.), *Venturing Beyond the Classroom: Volume 2 in the Rethinking Negotiation Teaching Series*. Saint Paul: DRI Press.
- Parkin, D. (1998). Is outdooreducation environmental education? *International Journal of Environmental Education, 17*(3).
- Parr, M., & Lashua, B. (2005). Students' perceptions of leisure, leisure professionals and the professional body of knowledge. *Journal of Hospitality, Leisure, Sports and Tourism Education, 4*(2), 16-26.
- Paskevich, D. M., Estabrooks, P. A., Brawley, L. R., & Carron, A. V. (2001). Cohesion in sport and exercise. In R. Singer, H. A. Hausenblaus & C. Janelle (Eds.), *Handbook of research on sport psychology* (2nd ed., pp. 472-496). New York: Macmillan.
- Passarelli, A. M., & Kolb, D. A. (2011). The learning way-Learning from experience as the path to lifelong learning and development. In M. London (Ed.), *The Oxford Handbook of Lifelong Learning*. Oxford: Oxford University Press.
- Pate, G. S., & Matega, J. A. (1979). Retention: The real power of simulation and gaming? *Journal of Experiential Learning and Simulation 1*, 195-202.
- Pempek, T. A., Yermolayeva, Y. A., & Calvert, S. L. (2009). College students' social networking experiences on Facebook. *Journal of Applied Developmental Psychology, 30*, 227-238.

- Perkins, D. N., & Salomon, G. (1989). Are cognitive skills context-bound? *Educational Researcher*, 18(1), 16-25.
- Persson, M. (2014). *Socio-geographic effect on higher education choices*. Paper presented at the XVIII ISA World Congress of Sociology, Yokohama, Japan.
- Pigram, J. (1983). *Outdoor recreation and resource management*. London: Croom Helm.
- Place, G. (2004). *Does interaction with the environment during the camping experience influence environmental attitudes?* Chicago State University. Chicago. Retrieved from <http://www.acacamps.org/sites/default/files/images/research/symposium/place.pdf>
- Place, G. (2006). *Does interaction with the environment during camping experience influence environmental attitudes*. Paper presented at the American Camping Association Research Symposium, New Jersey.
- Prapavessis, H., & Carron, A. V. (1997). Cohesion and work output. *Small Group Research*, 28(2), 294-301.
- Preston, L. (2004). Making connections with nature: Bridging the theory - practice gap in outdoor and environmental education. *Australian Journal of Outdoor Educational Evaluation and Policy Analysis*, 8(1), 12-19.
- Priest, S. (1986). Redefining outdoor education: A matter of many relationships. *Journal of Environmental Education*, 17(3), 13-15.
- Priest, S. (1988). Outdoor leadership around the world: A matter of semantics. *Journal of Adventure Education*, 5(1).
- Priest, S. (1993). A new model for risk taking. *Journal of Experiential Education*, 16(1).
- Priest, S. (1996). Developing organizational trust: Comparing the effect of ropes courses and group initiatives. *Journal of Experiential Education*, 19, 37-39.
- Priest, S. (1998a). The impact of sequencing on teamwork development in a CAT program. *Journal of Experiential Education*.
- Priest, S. (1998b). Physical challenge and the development of trust through corporate adventure training. *Journal of Experiential Education*, 21(31-34).
- Priest, S. (2000). The impact of sequencing on team work development in a CAT program. *The Australian Journal of Outdoor* 5(1).

- Priest, S. (Ed.). (1990). *Adventure education*. State College: Venture Publishing Inc.
- Priest, S., Attarian, A., & Schubert, S. (1993). Conducting research in experiential-based training and development programs: Pass keys to locked doors. *The Journal of Experiential Education*, 6(2), 11 -20.
- Priest, S., & Gass, M. (1997). *Effective leadership in adventure programming*. Champaign IL: Human Kinetics.
- Priest, S., & Gass, M. (2005). *Effective leadership in adventure programming* (Second ed.). Champaign, IL: Human Kinetics.
- Priest, S., & Lesperance, M. A. (1994). Time series trends in corporate team development. *Journal of Experiential Education*, 17(1), 34-39. doi: 10.1177/105382599401700108
- Prouty, D., Panicucci, J., & Collinson, R. (2007). *Adventure education: Theory and applications*. Champaign, IL: Human Kinetics.
- Pryor, A., Carpenter, C., & Townsend, M. (2005). Outdoor education and bush adventure therapy: A socio-ecological approach to health and wellbeing. *Australian Journal of Outdoor Education*, 9(1).
- Purdie, N., Neill, J. T., & Richards, G. E. (2002). Australian identity and the effect of an outdoor education program. *Australian Journal of Psychology*, 54(1), 32-39.
- Rahim, R., & Misagh, H. K. (2009). The relationship between coach's leadership styles and team cohesion in iran football clubs professional league. *Brazilian Journal of Biomotricity*, 3(2), 110-120.
- Rahimah, H. A. (1998). Educational development and reformation in Malaysia: Past, present and future. *Journal of Educational Administration*, 36(5), 462-475.
- 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(3), 467-486.
- Reddrop, S. (1997). *Outdoor programs for young offenders in detention: An overview*. National Clearinghouse for Youth Studies.
- Robb, G. M., & Ewert, A. (1987). Risk recreation and persons with disabilities. *Therapeutische Zeitschrift Journal*, 21(1), 58-69.
- Roehl, W. S., & Fesenmaier, D. R. (1992). Risk perceptions and pleasure travel: An exploratory analysis. *Journal of Travel Research*, 30(4), 17.

- Rohnke, K. (1989). *Cowstail and cobras II. A guide to games, initiative problems, ropes courses & adventure curriculum*. Dubuque, IA: Kendall/Hunt Publishing Company.
- Rohnke, K., & Butler, S. (1995). *Quicksilver adventure, games, initiative problems, trust activities and a guide to effective leadership*. Dubuque, IA: Kendall Hunt Publishing Co.
- Roland, C. C., & Havens, M. D. (1983). *A sequential approach to challenging activities with persons who are disabled*. Loretto, MN: The Vinland National Center.
- Roland, C. C., Keene, T., Dubois, M., & Lentini, J. (1987a). *Experiential challenge program development in the mentalhealth setting*. Paper presented at the The Bradford Papers Annual, Martinsville, IN.
- Roland, C. C., Keene, T., Dubois, M., & Lentini, J. (1987b). *Experiential challenge program development in the mental health setting*. Paper presented at the The Bradford Papers Annual, Martinsville, IN.
- Roland, C. C., Summers, S., Friedman, M., Barton, G., & McCarthy, K. (1987). Creation of an experiential challenge program *Therapeutic Recreation Journal*, 21(2), 54-63
- Rosenthal, R., & Rosnow, R. L. (1991). *Essentials of behavioral research: Methods and data analysis* (Second Edition ed.): McGraw-Hill Publishing Company.
- Ross, E. W. (2006). *The social studies curriculum: The purposes, problems and possibilities* (3rd ed.). New York: State University of New York Press.
- Rubens, D. (1997). *Outdoor education, adventure and learning - a fusion*. (Master Dissertation), University of Edinburgh, Edinburgh.
- Rubin, K. H., Bukowski, W. M., Laursen, B., & Laursen, B. P. (2009). *Handbook of peer interactions, relationships, and groups* (6th ed.). New York: Wiley.
- Russell, K., & Sibthorp, J. (2004). Hierarchical data structures in adventure education and therapy. *Journal of Experiential Education*, 27(2), 176-190.
- Said, H. (2006). *The effectiveness of student leadership training programs in public universities of Malaysia*. (3211177), Idaho State University, Ann Arbor. Retrieved from <http://search.proquest.com/docview/304950304?accountid=27932>
- Sánchez, J. C., & Yurrebaso, A. (2009). Group cohesion: Relationships with work team culture. *Psicothema*, 21(1), 97-104.

- Santarsiero, L. J., Baker, R. C., & McGee, T. F. (1995). The effects of cognitive pretraining on cohesion and self-disclosure in small groups: An analog study. *Journal of Clinical Psychology, 51*, 403-409.
- Saphores, J. M., Nixon, H., Ogunseitan, O., & Shapiro, A. (2006). Household willingness to recycle electronic waste: An application to California. *Environment and Behavior, 38*, 183-208.
- Saracho, O. N., & Spodek, B. (2007). *Contemporary perspectives on social development in early childhood education* (Vol. 3). Greenwich, Connecticut: Information Age Publishing.
- Saracho, O. N., & Spodek, B. (2013). *Handbook of research on the education of young children* (Vol. 3). New York: Routledge: Taylor and Francis Group.
- Schoel, J., Prouty, D., & Radcliffe, P. (1988). *Island of healing. A guide to adventure-based counselling*. Hamilton, MA: Project Adventure, Inc.
- Scholer, E. A., & Teoh, T. L. (1980). Teacher training in Physical Education in Malaysia. *Journal of Physical Education and Recreation, 51*(1), 74-77. doi: 10.1080/00971170.1980.10622014
- Shayne, P. G. (2000). Assessment in wilderness orientation programs: Efforts to improve college student retention. *Journal of Experiential Education, 23*(2), 75.
- Sheard, M., & Golby, J. (2006a). The efficacy of an outdoor adventure education curriculum on selected aspects of positive psychological development. *The Journal of Experiential Education, 29*(2), 187-209.
- Sheard, M., & Golby, J. (2006b). The efficacy of outdoor adventure education curriculum on selected aspects of positive psychological development. *Journal of Experiential Education, 29*(2), 187-209.
- Shepard, C. L., & Speelman, L. R. (1986). Affecting environmental attitudes through outdoor education. *Journal of Environmental Education, 17*(2).
- Shivakumara, K., Mane, S. R., Diksha, J., & Nagaraj, O. (2015). Effect of gender on environmental awareness of post-graduate students. *British Journal of Education, Society & Behavioural Science, 8*(1), 23-33.
- Shivers-Blackwell, S. L. (2003). Reactions to outdoor teambuilding initiatives in MBA education. *Journal of Management Development, 23*(7), 614-630.
- Shivers-Blackwell, S. L. (2004). Reactions to outdoor teambuilding initiatives in MBA education. *Journal of Management Development, 23*(7), 614-630.

- Sibthorp, J. (2003). An empirical look at Walsh and Golins' adventure education process model: Relationships between antecedent factors, perceptions of characteristics of an. *Journal of Leisure Research*, 35(1), 80-106.
- Sibthorp, J. (2009). Making a difference with experiential education research: Quality and focus. *Journal of Experiential Education*, 31(3), 456-459.
- Sibthorp, J., Furman, N., Paisley, K., & Gookin, J. (2009). Long-term impacts attributed to participant in adventure education: Preliminary finding from NOLS. *Research in Outdoor Education*, 9, 86-102.
- Sibthorp, J., Furman, N., Paisley, K., Gookin, J., & Schumann, S. (2011). Mechanisms of learning transfer in adventure education: Qualitative results from the nols transfer survey. *Journal of Experiential Education* 34(2), 109–126.
- Sibthorp, J., Paisley, K., & Gookin, J. (2007). Exploring participant development through adventure-based programming: A model from the National Outdoor Leadership School. *Leisure Sciences*, 29(1), 1-18.
- Siedentop, D. (1998). *Introduction to physical education, fitness, and sport* (3rd ed.). Mountain View, CA: Mayfield.
- Simons-Morton, B., & Farhat, T. (2010). Recent findings on peer group influences on adolescent substance use. *The Journal of Primary Prevention*, 31(4), 191-208. doi: 10.1007/s10935-010-0220-x
- Singh, K. (2007). *Quantitative social research methods*. New Delhi: Sage Publication Ltd.
- Smith, J. (1955). *Outdoor education and youth*. Washington, DC: AAHPER.
- Smith, R. E., & Smoll, F. L. (1996). Coach-mediated team building in youth sports. *Journal of Applied Sport Psychology*, 9(1).
- Soares, R. R. (2010). *The impact of perceived risk from challenge courses on group cohesion* (Master Thesis), California Polytechnic State University, San Luis.
- Somekh, B., & Lewin, C. (2005). *Research methods in the social sciences*. London: Sage Publication.
- Sonderer, E. v., Sanderman, R., & Coyne, J. C. (2013). Ineffectiveness of reverse wording of questionnaire items: Let's learn from cows in the rain. *PLoS ONE*, 8(7), e68967. doi: 10.1371/journal.pone.0068967
- Spink, K. S. (1995). Cohesion and intention to participate of female sport team athletes. *Journal of Sport and Exercise Psychology*, 17, 416-427.

- State-Davey, H. (2009). *The development of multidimensional measure of cohesion for organizational work teams*. (PhD Thesis), University of Leicester.
- Stetson, C. P. (1996). *Journey with Kurt Hahn*. Victoria, Canada: Outward Bound International.
- Stidder, G., & Hayes, S. (Eds.). (2011). *The really useful physical education book*. New York: Routledge.
- Stoddart, F. (2004). *Developing social capital through outdoor education in Cumbria: A case study*. Paper presented at the Outdoor Education International Research Conference, Bendigo La Trobe University.
- Stroud, S. M. (2006). *The effects of team building activities on group climate and cohesion*. (Master Thesis), University of North Carolina, Greensboro.
- Sveen, R. (1995). *Adolescent participants in a wilderness-based challenge*. (Master Thesis), University of Tasmania, Tasmania, Australia.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics* (6th ed.). New York: Pearson.
- Taniguchi, S., Widmer, M., Duerden, M., & Draper, C. (2009). The Attributes of Effective Field Staff in Wilderness Programs: Changing Youths' Perspectives of Being "Cool". *Therapeutic Recreation Journal*, 43(1), 11-26.
- Tannen, D. (1990). Gender differences in topical coherence: creating involvement in best friends' talk. *Discourse Process*, 13, 73-90.
- Tannenbaum, S., Beard, R., & Salas, E. (1992). Issues, theory and research in industrial/organizational psychology In K. Kelley (Ed.), *Teambuilding and its influence on team effectiveness: An examination of conceptual and empirical developments* (pp. 117-153). Amsterdam: Elsevier.
- Tarrant, M. A., & Cordell, H. K. (1997). The effect of respondent characteristics on general environmental attitude-behavior correspondence. *Environment & Behavior*, 29(5), 618.
- Tartaglia, S. (2012). Different predictors of quality of life in urban environments. *Social Indicators Research*, 113(3), 1045-1053.
- Taylor, A. F., Wiley, A., Kuo, F. E., & Sullivan, W. C. (1998). Growing up in the inner city: Green spaces as places to grow. *Environment & Behavior*, 30(1), 3-27.

- Tazein, R., & Meshkati, Z. (2014). The effect of training the transactional analysis skills on athletes' group cohesion. *Advances in Environmental Biology*, 8(12), 1464-1467.
- Thalheimer, W. (2006). Spacing learning events over time: What the research says. <http://www.work-learning.com/catalog/>
- Thapa, B. (2010). The mediation effect of outdoor recreation participation on environmental attitude-behavior correspondence. *The Journal of Environmental Education*, 41(3).
- Thomas, G. (2005). Traditional adventure activities in outdoor environmental education. *Australian Journal of Outdoor Education*, 9(1).
- Thomas, G. (2010). Facilitator, teacher, or leader? Managing conflicting roles in outdoor education. *The Journal of Experiential Education*, 32(3), 239-254.
- Thomas, G., & Thomas, J. (2000). Moving water paddling as critical outdoor education. *Australian Journal of Outdoor Education*, 5(1).
- Thomas, S., & Raymond, C. (1998). Risk and provider responsibility in outdoor adventure activities. *Teacher Development: An international journal of teachers' professional development*, 2(2), 265-281.
- Tikka, P. M., Kuitunen, M. T., & Tynys, S. M. (2000). Effects of educational background on students' attitudes, activity levels, and knowledge concerning the environment. *The Journal of Environmental Education*, 31(3), 12-19. doi: 10.1080/00958960009598640
- Timken, G. L., & McNamee, J. (2012). New perspectives for teaching physical education: Preservice teachers' reflections on outdoor and adventure education. *Journal of Teaching in Physical Education*, 31, 21-38.
- Ting, K. L., & Siew, N. M. Effects of outdoor school ground lessons on students' science process skills and scientific curiosity. *Journal of Education and Learning*, 3(4), 96-107.
- Trochim, W. M. K. (2015, 20 October 2006). Resesearch method and knowledge base. *Covariance Designs*. 2015, from <http://www.socialresearchmethods.net/kb/index.php>
- Tuckman, B. W. (1965). Development sequence in small groups. *Psychological Bulletin*, 3(6), 384-399.
- Uhs, Y. T., Michikyan, M., Morris, J., Garcia, D., Small, G. W., Zgourou, E., & Greenfield, P. M. (2014). Five days at outdoor education camp without screens improves preteen skills with nonverbal emotion cues. *Computers in Human Behavior*, 39, 387-392. doi: <http://dx.doi.org/10.1016/j.chb.2014.05.036>

- Urtel, M. (2003). *The relationship between early participation in an outdoor education program and retention in an academic unit*. (Phd Dissertation), Indiana University.
- Varshney, A. (2002). *Ethnic conflict and civic life: Hindus and Muslims in India*. New Haven, CT: Yale University Press.
- Vaske, J. J. (2008). *Survey research and analysis: Application in park, recreation and human dimension*. Cato Avenue: Venture Publishing, Inc.
- Veghari, G., Sedaghat, M., Joshaghani, H., Hoseini, S. A., Niknezad, F., Angizeh, A., . . . Moharloei, P. (2010). Association between socio-demographic factors and diabetes mellitus in the north of Iran: A population-based study. *International Journal of Diabetes Mellitus*, 2(3), 154-157. doi: <http://dx.doi.org/10.1016/j.ijdm.2010.09.001>
- Villacorta, M., Koestner, R., & Lekes, N. (2003). Further validation of the motivation toward the environment scale. *Environmental and Behavior*, 35(4).
- Vlassoff, C. (2007). Gender differences in determinants and consequences of health and illness. *Journal of Health, Population, and Nutrition*, 25(1), 47-61.
- Walsh, V., & Golins, G. (1976). *The exploration of the Outward Bound process*. Denver: Colorado Outward Bound School.
- Walther, J. B., Carr, C. T., Choi, S. S. W., DeAndrea, D. C., Kim, J., Tong, T. S., & Van der Heide, B. (2011). Interaction of interpersonal, peer, and media influence sources online: A research agenda for technology convergence. In Z. Papacharissi (Ed.), *A networked self: Identity, community*. Greenwich CT: JAI Press.
- Warren, K., Sakofs, M., & Hunt, J. (Eds.). (1995). *Kurt Hahn and the aims of education* (3rd ed.). Colorado: Kendall/Hunt Publishing Co.
- Weinberg, R. S., & Gould, D. (2007). *Foundations of sport and exercise psychology*. Champaign: Human Kinetics.
- Weiner, I. B., Schinka, J. A., & Velicer, W. F. (2013). *Handbook of psychology, research methods in psychology* (2nd ed. Vol. 2). New Jersey: John Wiley & Sons, Inc.
- Western State Coll. of Colorado, G., Phipps, M. L., & Cash, R. G. (1991). *Employee Preparation towards 2001. National Conference for Outdoor Leaders. Public, Commercial, and Non-Profit Partnerships Conference Proceedings*. Washington, D.C.: Distributed by ERIC Clearinghouse.
- Wharton, N. (1996). Health and safety in outdoor activity centres. *Journal of Adventure Education and Outdoor Leadership* 12(8-9).

- Whitaker, D. (1999). *The spirit of teams*. Marlborough, Wiltshire: The Crowood Press.
- White, J. (1998). Getting the learners' attention: A typographical input enhancement study. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 85-113). Cambridge: Cambridge U.
- Widmeyer, W., Brawley, L., & Carron, A. V. (1990). Group size in sport. *Journal of Sport & Exercise Psychology*, 12, 177-190.
- Widmeyer, W., Brawley, L. R., & Carron, A. V. (1985). *The Measurement of Cohesion in Sport Teams: The Group Environment Questionnaire*. London, Ont: Sports Dynamics.
- Widmeyer, W., & Martens, R. (1978). When cohesion predicts performance outcome in sport. *Research Quarterly*, 49, 372-380.
- Wilding, C. (2000). Improving quality of life after deinstitutionalisation through "ordinary adventure": A camping experience. *Journal of Leisurability*, 27(1).
- Williams, S. D., Graham, T. S., & Baker, B. (2003). Evaluating outdoor experiential training for leadership and team building. *Journal of Management Development*, 22(1).
- Yuen, F. C., Pedlar, A., & Mannell, R. C. (2005). Building community and social capital through children's leisure in the context of an international camp. *Journal of Leisure Research*, 37(4), 494-518.
- Yukelson, D. (1997). Principles of effective team building interventions in sport: A direct services approach at Penn State University. *Journal of Applied Sport Psychology*, 9(1), 73-96. doi: 10.1080/10413209708415385
- Zakrajseka, R. A., Abildsoa, C. G., Hurstb, J. R., & Watson, J. C. (2007). The relationships among coaches' and athletes' perceptions of coaching staff cohesion, team cohesion, and performance. *The Online Journal of Sports Psychology*, 9(3).
- Zink, R., & Boyes, M. (2006). The nature and scope of outdoor education in New Zealand schools. *Australian Journal of Outdoor Education*, 10(1), 11-12.