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The impact of an extended stay outdoor education school program upon adolescent participants

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**THE IMPACT OF AN EXTENDED STAY OUTDOOR EDUCATION
SCHOOL PROGRAM UPON ADOLESCENT PARTICIPANTS**

A thesis submitted in fulfilment of the requirements for the award of the degree of

DOCTOR OF PHILOSOPHY

from

THE UNIVERSITY OF WOLLONGONG

by

TONIA L. GRAY

B Ed (Wollongong)

MA (Northern Colorado)

Faculty of Education

1997

DECLARATION

I certify that the substance of this thesis has not already been submitted for any degree and is not being submitted for any degree.

I certify that any help received in preparing this thesis, and all the sources used, have been acknowledged.

Signed

Date 24 . 12 . 97 .

TONIA L. GRAY

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Behind every PhD candidate, there are many unsung heroes. I am referring to my parents, Jeanette and Brian Gray, and my family and friends whose unflagging efforts have helped keep the thesis 'afloat' in tumultuous times. The many times when you begin to question the value of a higher degree as opposed to sanity!. Quite honestly, these people are in a round about way, part-owners of this thesis. Their abilities to inadvertently regain equilibrium and balance back into your life whether it be with childcare assistance, a sounding-board for your frustrations or just simply being a calming influence as you go through the higher degree roller coaster ride - to you all, I am eternally grateful and forever indebted.

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PREFACE

This study is an outgrowth of my strong belief in outdoor education as an adjunct to contemporary educational methods. I became aware of the inherent power of this pedagogical medium over ten years ago whilst teaching in a secondary school. Quite clearly from this point forward, I was enamoured by this teaching paradigm.

The personal and social development of students in my classes, whether they be in the secondary or tertiary setting, have all provided ongoing testimony as to the pedagogical value of this field. For this reason, I have set about the rather arduous task of attempting to prove the educational efficacy of outdoor education.

At this juncture, one of my fondest wishes would be that this thesis becomes tattered and torn in the field. I am cognizant of the fact that there is a large pool of research which is commonly referred to as too "esoteric and academic". Such pieces of work remain on bookshelves collecting dust and can only be labelled ephemeral and obsolete.

My undying wish is for theory and practice to work synergistically in the outdoor education paradigm. As both a theorist and practitioner in this field, I have endeavoured to steer away from contributing to an ever-increasing pool of research which is viewed as irrelevant or too academic. For this reason, I sincerely hope that this piece of research enriches the field of outdoor education.

ABSTRACT

Although recently outdoor education has become an important component of the school curricula in Australia, extended programs in residential settings are still comparatively rare. Where such programs have been in existence, their *raison d'être* is underpinned by anecdotal evidence rather than systematic evaluation or empirically established statements of effectiveness (Gray, Patterson and Linke, 1993a).

This research is a longitudinal study examining the impact of an Extended Stay Outdoor Education School Program (ESOESP) upon adolescent participants. Primarily the study analyses program impact, both immediate and residual, upon the perceived changes in identified variables of participants. Data was gathered and analysed using both quantitative and qualitative methodologies. Many researchers are of the belief that the two methodologies compliment one another and thereby strengthen the total evaluation model (for example Hanna, 1992a; Henderson, 1993; Klint and Priest, 1988).

A unique Australian school (Timbertop) was used as the basis of a case study in the research. Timbertop is Geelong Grammar School's outdoor education campus where an ESOESP lasting for a full academic year is conducted. This residential program is co-educational catering for both females and males in Year 9. The subjects (n=409) came from two consecutive school populations, viz the 1993 cohort (n=201) and the 1994 cohort (n=208).

Three quantitative instruments, the Real Me Questionnaire (RMQ), the School Life Questionnaire (SLQ) and the Parent Questionnaire (PQ) were designed specifically for this study to assess program effectiveness. Moreover, the instrumentation evaluated perceived changes in participants' attitudes, values and behaviours during and after exposure to an ESOESP along with differential gender outcomes. Using a quasi-experimental design, students were administered pre-tests and tracked at regular intervals for up to two academic

years using the RMQ and SLQ in order to ascertain self-perceived changes in selected variables.

The instruments contained subscales (also referred to as dependent variables) related to selected variables which were identified on the basis of the literature review, as being relevant outcomes associated with ESOESP's. The RMQ contained six subscales: 1) social responsibility, 2) personal relations, 3) health and physical aptitude, 4) environmental sensitivity, 5) autonomy and 6) academic and cultural achievement. The SLQ contained four subscales: 1) school spirit, 2) quality of teaching, 3) interpersonal relationships and 4) appropriateness of curriculum.

In qualitative terms, a randomly selected cohort from each consecutive school year (1993 and 1994) were tracked using techniques such as personal interview, personal observation, time line charts and log book analysis. Input from teachers and parents was also sought in an attempt to consolidate the self-report data. The teacher interviews provided anecdotal evidence towards program impact for the cohort of students tracked through personal interview.

The research design was further strengthened both quantitatively and qualitatively, using a Parent Questionnaire (PQ). This was mailed to all parents/guardians of the 1993 cohort roughly nine to ten months following their child's completion of the ESOESP. Inarguably, triangulation of data from a variety of sources provided a more comprehensive overview of the impact of ESOESP's upon adolescent participants.

In order to ascertain the impact of the ESOESP over an academic year, an A X B X (C X S) two-way repeated measures mixed model analysis of variance (MANOVA) was carried out on the self-report data contained in the RMQ and SLQ, where A represented time, B represented gender and C represented the subjects with time. An extra data point (referred to as follow-up) was included for the 1993 cohort 12-months after their ESOESP departure.

When assessing the residual impact of the ESOESP, four subscales viz: Social Responsibility, Appropriateness of Curriculum, Quality of Teaching and School Spirit, all experienced a significant decline in the mean scores over the follow-up period. The most marked and statistically significant reversion was in the subscales Quality of Teaching and School Spirit. The other six subscales remained relatively constant over the follow-up period.

The qualitative data was collected by a number of methodologies viz: 1) personal interviews; 2) log book analysis and time line charts; 3) personal observations; 4) teachers' perceptions; and 5) parents' perceptions. In the main, all sources of qualitative data strongly endorsed the intrinsic and extrinsic benefits of the ESOESP.

It can therefore be seen, that a pluralistic evaluation model was involved in the assessment of process and impact variables. Similarly, the study utilised a prospective methodology for data collection. The case study approach attempted to assess the immediate and long term impact of an ESOESP and discuss the differences between perceived and real outcomes of the experience. A secondary purpose of the study was to establish rigorous and acceptable methodologies and instrumentation which will enable ongoing and systematic research into this field. Clearly there was a paucity of formal evaluation which attempted to clarify the ongoing aims and objectives and program efficacy within this arena.

Assessing the residual and long-term effects of ESOESP's was no easy task. In many respects the longitudinal nature of the research is representative of a landmark study within the outdoor education paradigm. Invariably, outdoor education is perceived as a fringe or peripheral subject within the school curriculum. Increasingly, these so called "esoteric" subjects are coming under scrutiny by policy and curriculum planners as we head towards the 21st century. Attempts have been made during this study, to devise a workable model which assists in the identification of the educational efficacy and viability of ESOESP's.

Physical fitness of students was assessed by measuring their completion time over a set cross country course designated at the ESOESP. The fitness testing data was analysed descriptively and inferentially using a t-test for paired samples. The PQ data was treated descriptively for every item with means and standard deviations being reported.

As far as the quantitative data is concerned, the results were unequivocal and somewhat ambiguous. The fitness data revealed a significant improvement in aerobic capacity ($p < .001$) for both cohorts. The PQ consistently made reference to similar attributes attained as a result of the intervention. For the most part, these included 1) autonomy and self-reliance; 2) environmental sensitivity; 3) health and physical aptitude; 4) interpersonal relationships; and 5) social responsibility. The PQ also conveyed that the parents were strong advocates of the program. Collectively, the large majority of parents (89.4%) were either satisfied (25.2%) or very satisfied (64.2%) with the experiences provided by Timbertop. A minority of parents (10.6%) were slightly dissatisfied with the ESOESP whilst no parent (0%) indicated a total dissatisfaction with the school.

In most instances there was minimal change within the subscales of the RMQ and SLQ over the ESOESP duration. There were only five subscales that revealed a significant main effect viz: Social Responsibility; Personal Relations; Environmental Sensitivity; Quality of Teaching; and School Spirit. Moreover, all five subscales that were statistically significant experienced a decline in scores.

Only one subscale viz; Academic and Cultural Achievement produced a significant gender difference. Mean scores for males and females became more similar (or androgynous) as a result of the intervention. All other subscales retained their parallelism during the period of intervention. The combined mean scores for the 1993 and 1994 females remained consistently higher than their male counterparts in all subscales except Autonomy throughout the duration of the ESOESP.

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TABLE OF CONTENTS

	Page
Title Page	i
Declaration	ii
Acknowledgments	iii
Preface	v
Abstract	vi
Table of Contents	x
CHAPTER 1 AN INTRODUCTION TO THE STUDY	1
1.1 Background and Rationale	1
1.2 Brief History of Outdoor Education	3
1.2.1 Historical Context	4
1.2.2 Defining Outdoor Education	5
1.2.2.1 Outdoor Adventure	6
1.2.2.2 The Wilderness Experience	7
1.2.2.3 Experiential Education	9
1.2.2.4 Outdoor Education	11
1.2.2.5 Uniting the four terms	16
1.3 Background to ESOESP's	18
1.3.1 The Emergence of ESOESP's in Schools	21
1.3.2 Aims of ESOESP's	23
1.4 Need for the Study	26
CHAPTER 2 LITERATURE REVIEW	31
2.1 Education in the 1990's: The current state of play	32
2.2 Adolescence	36
2.2.1 Characteristics of Adolescents	37
2.2.1.1 The Stability of Adolescent Self-Concept	40
2.2.1.2 Adolescent Identity Formation	41
2.2.1.3 Resiliency in Adolescents	54
2.2.1.4 Risk Taking Propensity in Adolescence	55
2.2.2 Gender Issues	59
2.2.2.1 The Development of Gender Identity	59
2.2.2.2 Gender and Adolescence	62
2.2.2.3 Outdoor Education and Gender Issues	64
2.3 Outdoor and Experiential Education	70
2.3.1 Benefits of Outdoor and Experiential Education	71

2.3.2	Research and Evaluation in Outdoor and Experiential Education	77
2.3.2.1	Research in Adventure Therapy	80
2.3.2.2	Immediate and Residual Effects	85
2.3.2.3	Research on Adolescents in Outdoor Education	86
2.3.3	Outdoor Education programs pertaining to the school setting	87
CHAPTER 3	THE RESEARCH DESIGN	92
3.1	Brief description of the case study and the program	92
3.2	Overview of the Research Design	93
3.3	Genesis of the Instruments	96
3.3.1	Developing and trialling the quantitative instruments	97
3.3.2	Developing and trialling the qualitative instruments	108
3.4	Circumstantial constraints associated with the study	109
3.4.1	Main Assumptions	112
3.4.2	Limitations	113
3.5	Methods of Data Analysis	113
3.5.1	The Quantitative Data	114
3.5.2	The Qualitative Data	116
3.6	Defintion of Subscales	118
CHAPTER 4	CASE STUDY: TIMBERTOP	120
4.1	Background to Timbertop	120
4.2	The Research Questions	124
4.3	The Research Design	126
4.3.1	The 1993 Cohort	126
4.3.2	The 1994 Cohort	129
CHAPTER 5	PERCEPTIONS OF THE ESOESP: THE 1993 COHORT'S RESULTS AND DISCUSSION	131
5.1	The 1993 Cohort Background Information	132
5.1.1	Personal Observations	133
5.1.2	Personal Interviews	135
5.1.2.1	General Comments	136
5.1.2.2	Health and Physical Aptitude	140
5.1.2.3	Personal Relations	143
5.1.2.4	Social Responsibility	145

5.1.2.5	Autonomy	147
5.1.2.6	Academic and Cultural Achievements	149
5.1.2.7	Environmental Sensitivity	151
5.1.2.8	School Spirit	152
5.1.2.9	Quality of Teaching	155
5.1.2.10	Interpersonal Relationships	157
5.1.2.11	Appropriateness of Curriculum	159
5.1.2.12	Summary of the 1993 Cohort's Personal Interviews	162
5.1.3	Log Book Analysis and Time Line Charts	169
5.1.4	Parent Input	177
5.1.4.1	General Comments	177
5.1.4.2	Health and Physical Aptitude	179
5.1.4.3	Personal Relations	180
5.1.4.4	Social Responsibility	181
5.1.4.5	Autonomy	181
5.1.4.6	Academic and Cultural Achievements	182
5.1.4.7	Environmental Sensitivity	183
5.1.4.8	School Spirit	183
5.1.4.9	Quality of Teaching	184
5.1.4.10	Interpersonal Relationships	184
5.1.4.11	Appropriateness of Curriculum	185
5.1.4.12	Parents' Perceptions of the Problems and Limitations	186
5.1.4.13	Parents' Perceptions of the Residual Effects	188
5.1.4.14	Parents' Perceptions of the Gender Differences	189
5.1.5	Teacher Input	190
5.1.5.1	Master of Timbertop's Comments	190
5.1.5.2	Teacher Perceptions	191
 CHAPTER 6 PERCEPTIONS OF THE ESOESP: THE 1994 COHORT'S RESULTS AND DISCUSSION		 195
6.1	The 1994 Background Information	195
6.1.1	Personal Observations	196
6.1.2	Personal Interviews	197
6.1.2.1	General Comments	198
6.1.2.2	Health and Physical Aptitude	201
6.1.2.3	Personal Relations	203
6.1.2.4	Social Responsibility	205
6.1.2.5	Autonomy	206

6.1.2.6	Academic and Cultural Achievements	207
6.1.2.7	Environmental Sensitivity	208
6.1.2.8	School Spirit	209
6.1.2.9	Quality of Teaching	211
6.1.2.10	Interpersonal Relationships	212
6.1.2.11	Appropriateness of Curriculum	214
6.1.2.12	Summary of the 1994 Cohort's Personal Interviews	217
6.1.3	Time Line Chart and Log Book Analysis	220
CHAPTER 7	RMQ, SLQ, PQ AND FITNESS DATA AND DISCUSSION	225
7.1	Results Over The 12 Month ESOESP Duration	226
7.1.1	The RMQ Results Over The ESOESP Duration	229
7.1.1.1	Social Responsibility	230
7.1.1.2	Personal Relations	231
7.1.1.3	Academic and Cultural Achievements	233
7.1.1.4	Health and Physical Aptitude	234
7.1.1.5	Autonomy	235
7.1.1.6	Environmental Sensitivity	236
7.1.2	The SLQ Results Over The ESOESP Duration	238
7.1.2.1	Appropriateness of Curriculum	239
7.1.2.2	Quality of Teaching	240
7.1.2.3	School Spirit	242
7.1.2.4	Interpersonal Relationships	243
7.1.3	Fitness Data	244
7.1.4	Summary Of ESOESP Impact In Quantitative Terms Over The 12 Month Duration.	246
7.2	RMQ and SLQ Results Over The 12 Month Follow-Up	249
7.2.1	Social Responsibility Follow-Up Results	250
7.2.2	Personal Relations Follow-Up Results	250
7.2.3	Academic and Cultural Achievements Follow-Up Results	251
7.2.4	Health and Physical Aptitude Follow-Up Results	251
7.2.5	Autonomy Follow-Up Results	252
7.2.6	Environmental Sensitivity Follow-Up Results	252
7.2.7	Appropriateness of Curriculum Follow-Up Results	253
7.2.8	Quality of Teaching Follow-Up Results	253
7.2.9	School Spirit Follow-Up Results	254
7.2.10	Interpersonal Relationships Follow-Up Results	254
7.2.11	Summary Of The RMQ and SLQ Results Over The 12 Month Follow-Up	255
7.3	The Parents' Perceptions	256

CHAPTER 8	DISCUSSION AND ANALYSIS OF GENERAL ISSUES	261
8.1	Qualitative Data	262
	8.1.1 Personal Interviews	262
	8.1.2 Time Line Charts and Log Book Analysis	266
	8.1.3 Parent Input	267
	8.1.4 Teacher Input	271
	8.1.5 Personal Observation	272
	8.1.6 Qualitative Gender Differences Over the ESOESP Duration	273
8.2	Quantitative Data	275
	8.2.1 Student Data	275
	8.2.1.1 RMQ and SLQ Results over the ESOESP Duration	275
	8.2.1.2 Quantitative Gender Differences over the ESOESP Duration	276
	8.2.1.3 Fitness Data	277
	8.2.1.4 Residual Impact	278
	8.2.1.5 Parent Input	280
8.3	Discussion of Main Points	281
	8.3.1 Personal and Social Growth	281
	8.3.2 Shared Experiences and Self-Disclosure	284
	8.3.3 Appropriateness of Curriculum	286
	8.3.4 Autonomy	288
	8.3.5 Nature as a Cathartic Agent	290
	8.3.6 The Instrumentation	292
8.4	Towards a Model for Future Research In ESOESP's	295
	8.4.1 Facilitator or Teacher Influence	297
	8.4.2 Timing of the intervention	298
	8.4.3 Physical Elements	298
	8.4.4 The Setting	298
CHAPTER 9	RECOMMENDATIONS AND CONCLUSIONS	300
9.1	Recommendations for Future Research	301
	9.1.1 Recommendations for Future Research in School Based Outdoor Education Programs	301
	9.1.2 Recommendations for Timbertop	305
9.2	Implications For Future Development Of ESOESP'S	312
9.3	Concluding Comments	313
REFERENCES		314

APPENDICES		335
Appendix 1	What I Really Want to Be	336
Appendix 2	What I Really Am	338
Appendix 3	Real Me Questionnaire (RMQ)	340
Appendix 4	School Life Questionnaire (SLQ)	344
Appendix 5	Parent Questionnaire (PQ) and cover letter	346
Appendix 6	Interview Questions	349
Appendix 7	Charting your year at Timbertop	351
Appendix 8	Timbertop's program	352
Appendix 9	Interview Questions - One Year Later	358
Appendix 10	Background Information	359

LIST OF FIGURES

Figure 1.1	Definitions for Adventure Activities	7
Figure 1.2	The Outdoor Education Tree	14
Figure 1.3	Outdoor Education: A Conceptual Framework	16
Figure 1.4	Key Elements of Adventure/Outdoor Education	17
Figure 1.5	Aims and Objectives of ESOESP's	25
Figure 2.1	The Multi-Dimensional Nature of Self-Concept	41
Figure 2.2	Erickson's Eight Stages Across the Lifespan	42
Figure 2.3	The Personality of a Resilient Child	55
Figure 2.4	The Adventure Experience Paradigm	57
Figure 2.5	Allen's Model for Risk-Taking in Outdoor Adventure	58
Figure 2.6	Thought Frequency as Pie Charts	61
Figure 2.7	Outdoor Education Research Reporting Outcomes For Males and Females	67
Figure 2.8	Potential Benefits of Outdoor Adventure Pursuits	72
Figure 2.9	Research Methods Employed in Experiential Education	79
Figure 2.10	The Adventure Therapy Process	82
Figure 2.11	Appropriate Therapeutic Change	84
Figure 3.1	Model to be followed for the Quantitative and Qualitative Evaluation of ESOESP's	95
Figure 3.2	Program Impact	96
Figure 3.3	Outline of the Glengarry Trial Testing Program	102
Figure 3.4	The Evolution of the Quantitative Instruments	105
Figure 3.5	Subscales contained in the Real Me Questionnaire (RMQ)	106
Figure 3.6	Subscales contained in the School Life Questionnaire (SLQ)	107
Figure 3.7	The Category of Variables	114

Figure 3.8	Definition of Subscales	119
Figure 4.1	Outline of the 1993 Timbertop Cohort Testing Program	128
Figure 4.2	Outline of the 1994 Timbertop Cohort Testing Program	129
Figure 4.3	1993 & 1994 Timbertop Testing Schedule	130
Figure 7.1	Summary of the RMQ and SLQ Results Over the ESOESP Duration	246
Figure 8.1	The ESOESP Tree	296

LIST OF TABLES

Table 7.1	Summarized Results for the RMQ and SLQ Over the ESOESP Duration	227
Table 7.2	Time By Gender By Cohort Results	228
Table 7.3	RMQ Results - Cohort By Time	229
Table 7.4	RMQ Results - Gender By Time	230
Table 7.5	Mean Social Responsibility Scores - Cohort By Time	230
Table 7.6	Mean Social Responsibility Scores - Gender By Time	231
Table 7.7	Mean Personal Relations Scores - Cohort By Time	232
Table 7.8	Mean Personal Relations Scores - Gender By Time	232
Table 7.9	Mean Academic & Cultural Achievement Scores - Cohort By Time	233
Table 7.10	Mean Academic & Cultural Achievement - Gender By Time	233
Table 7.11	Mean Health & Physical Aptitude Scores - Cohort By Time	234
Table 7.12	Mean Health & Physical Aptitude Scores - Gender By Time	235
Table 7.13	Mean Autonomy Scores - Cohort By Time	235
Table 7.14	Mean Autonomy Scores - Gender By Time	236
Table 7.15	Mean Environmental Sensitivity Scores - Cohort By Time	236
Table 7.16	Mean Environmental Sensitivity Scores - Gender By Time	237
Table 7.17	SLQ Results - Cohort By Time	238
Table 7.18	SLQ Results - Gender By Time	239
Table 7.19	Mean Appropriateness of Curriculum Scores - Cohort By Time	239
Table 7.20	Mean Appropriateness of Curriculum Scores - Gender By Time	240
Table 7.21	Mean Quality of Teaching Scores - Cohort By Time	241
Table 7.22	Mean Quality of Teaching Scores - Gender By Time	241
Table 7.23	Mean School Spirit Scores - Cohort By Time	242
Table 7.24	Mean School Spirit Scores - Gender By Time	242
Table 7.25	Mean Interpersonal Relationships Scores - Cohort By Time	243
Table 7.26	Mean Interpersonal Relationships Scores - Gender By Time	244
Table 7.27	1993 Cohort's Run Times	244
Table 7.28	1994 Cohort's Run Times	244
Table 7.29	1993 Cohort's RMQ and SLQ Results - Pre, Mid, Post and Follow-up	249
Table 7.30	Mean Social Responsibility Scores After Follow-up	250

Table 7.31	Mean Personal Relations Scores After Follow-up	250
Table 7.32	Mean Academic & Cultural Scores After Follow-up	251
Table 7.33	Mean Health & Physical Aptitude After Follow-up	251
Table 7.34	Mean Autonomy Scores After Follow-up	252
Table 7.35	Mean Environmental Sensitivity Scores After Follow-up	252
Table 7.36	Mean Appropriateness of Curriculum Scores After Follow-up	253
Table 7.37	Mean Quality of Teaching Scores After Follow-up	253
Table 7.38	Mean School Spirit Scores After Follow-up	254
Table 7.39	Mean Interpersonal Relationship Scores After Follow-up	254
Table 7.40	Changes In Students As Perceived By Parents	257
Table 7.41	Parents' Satisfaction Rating of Timbertop	259