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1997

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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