

1994

Influences on outdoor education teachers' content selection

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**INFLUENCES ON OUTDOOR
EDUCATION TEACHERS'
CONTENT SELECTION**

BY

S. D. THORPE B. A. (Ed.)

**A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS OF THE AWARD OF:**

BACHELOR OF EDUCATION WITH HONOURS

**IN THE FACULTY OF EDUCATION
EDITH COWAN UNIVERSITY
MOUNT LAWLEY CAMPUS**

SUPERVISOR: DR. KEN ALEXANDER

DATE OF SUBMISSION: 25TH MARCH, 1994

USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

ABSTRACT

This study sought to identify what teachers perceive to be the major factors influencing their selection of content in outdoor education formal curricula in two Western Australian government senior high schools. The study uses comparative and descriptive measures, including a documentary analysis comparing Ministry of Education and school formal curricula. This analysis initially identified discrepancies with content selection, prompting the investigation, through interviewing, of teachers' perceptions of their causes. From the perceptions investigated, five categories of factors were identified: Time, cost; expertise; needs; and resources. These categories were integrated to form a substantive theory for influences on content selection by outdoor education teachers.

DECLARATION

I certify that this thesis does not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signature

Date ... 25/3/94

ACKNOWLEDGEMENTS

Mere words cannot express my gratitude to Dr. Ken Alexander. As my supervisor, advisor and friend he was, and continues to be, a source of constant support, valuable theoretical insights and perceptive criticisms and suggestions.

Without the constant source of love, support and encouragement provided by my parents, Jan and Don, I would never have been able to complete this thesis. I sincerely thank them both and remain eternally indebted.

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DEFINITION OF OPERATIONAL TERMS

Since variation in interpretations of the terminology used in this thesis may occur, a list of operational definitions follows.

APPROACH TENDENCIES: Are desirable, observable behavioural outcomes of a learning experience (Mager, 1962). Specific to this study, such tendencies manifest themselves in student propensity to participate in the movement culture as an integral part of their lives.

FACTOR: Naturalistic studies can realise a divergent, holistic reality, preventing the fragmentation and isolation common to the positivistic paradigm. The literature often refers to 'factors' or 'variables' affecting planning and implementation. For the purposes of this study, factors or variables are nothing more than constituents of an overall reality rather than mutually exclusive entities.

FORMAL CURRICULA: Also termed the official curriculum (Jackson, 1968), or the explicit curriculum (Dodds, 1985), concerns the formal teaching, content and organisation of the curriculum. This is the level of curriculum that appears in school programme papers, syllabi and policy documents.

The Ministry of Education's formal curriculum is open-ended such that schools may adapt sections of it to meet their own needs. The school formal curriculum is, ipso facto, different from the Ministry of Education's, hence creating more than one formal curriculum. This phenomenon of duality in curriculum is important to the study.

PROGRAMME: Distinguished for the purposes of this study from the term curriculum, it refers to the implementation of main activities at the lesson level; as opposed to written plans of action. However, the term programme does not refer to teaching processes or outcomes.

PLAN OF THE THESIS

Chapter One

Chapter one outlines pertinent background information to the nature and significance of the problem. Outdoor education is defined and contextualised as a method for teaching in, for and about the movement culture. The chapter concludes with the research questions the study sought to answer.

Chapter Two

Chapter two reviews literature relevant to the study. It examines the nature of curriculum and studies into curriculum decision-making by teachers in Australia. It also outlines factors identified by studies examining influences on curriculum planning, concluding with a conceptual framework for the research.

Chapter Three

Chapter three is devoted to a discussion of methodology. The assumptions underpinning the study are outlined. The methods for data collection and analysis are described. The chapter concludes with an examination of authenticity issues pertaining to the study.

Chapter Four

Chapter four reports the study's findings including results of the document analyses and discussion of the emergent categories. The chapter concludes with a discussion of additional and unanticipated results.

Chapter Five

Reports the audit trail from the data analysis which led to identification of categories and their subsequent integration to form the theory.

Chapter Six

This chapter examines the theory for content selection by outdoor education teachers that emerged from the study. This includes a discussion of the meaning and implications of the theory's propositions. The chapter concludes with recommendations drawn from the research findings, including suggestions for further research.

Chapter Seven

This chapter proposes five recommendations arising from the findings of the study. Each of these are discussed individually.

Chapter Eight

To conclude the thesis, chapter eight reports the limitations of the study, and suggests further research for the study of curriculum in outdoor education.

CHAPTER ONE

INTRODUCTION TO THE STUDY

Introduction

Chapter one outlines the notion of the movement culture and examines some of its benefits. It considers the future context for education in, for and about the movement culture, incorporated in the national curriculum Health and Physical Education learning area, as an aid to explaining the educational significance of outdoor education.

Background

The term 'movement culture' is a literal translation from German and Dutch. According to Crum (1991) it refers to the way in which a particular group of people "...deals with the problem of corporeality and the need and desire to be physically active (to move) apart from moving behaviour in the frame of labour and direct life maintenance" (p.4). It contains the set of movement behaviour phenomena (e.g. sport, games, dance, fitness activities, and outdoor pursuits) that are typical for the leisure of a particular group of people.

This study deals primarily with one of the media designed to develop approach tendencies to the movement culture; outdoor education. Outdoor education is a learning approach concerned with teaching in, for, and about the outdoors, with specific focus on intrapersonal, interpersonal, ecosystemic and ekistic relationships (Priest, 1985). Included in outdoor education are outdoor pursuits, adventure education, environmental education and residential or expedition activities. As an introduction to the study, developments in policy and planning in contemporary outdoor education in Western Australia are examined.

The Ministry of Education's formal curriculum.

Western Australian outdoor education has involved four sequential lower school units since 1987; a direct result of the move to Unit Curriculum. This saw the development of the accompanying formal curriculum, currently in use. The subject became Secondary Education Authority (S.E.A.) accredited for Years 11 and 12 in 1989. Interestingly, the subject's rationale and general objectives did not appear until 1989, two years after the production of the original teacher support materials.

The designers of the outdoor education formal curriculum worked on a developmental model (shown in Figure 1) with activities sequentially ordered from Years 1 to 12.

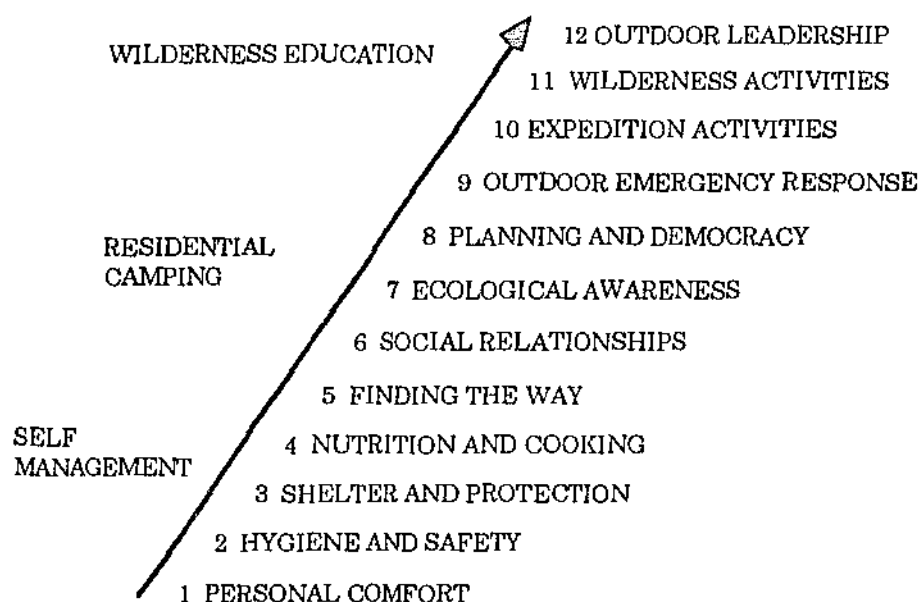


Figure 1. Sequence of intended learning in Ministry of Education formal curriculum for outdoor education.

Note. From Outdoor education 1989-90. Rationale. WA schools. K-12. Unit Curriculum stages 3-6, year 11 and year 12 (p. 5) by the Physical and Outdoor Education section, 1990, Perth, Western Australia: Author.

The relevance of the study depends, in part, on the value of educating in, for and about the movement culture. The next section attempts to outline this value by considering some physical, cognitive and psychological benefits to the individual from regular, active participation in the movement culture.

The Value of the Movement Culture

It is important for any learning area to be able to justify its position within education. Siedentop, Mand and Taggart (1986) suggest that teaching about and for the movement culture is valuable in its own right and does not need justification in reference to academic studies. While it is fine for those in the field to make such claims, do those outside it share their views? There are well documented benefits from regular active participation in educative aspects of the movement culture (Seefeldt, 1986; Seefeldt & Vogel, 1986; Siedentop et al., 1986). A summary of some findings of the authors mentioned are:

Physical activity promotes, assists or enhances:

1. the development and refinement of perceptual abilities involving vision, balance and tactile sensations;
2. the function of the central nervous system through the promotion of a healthier neuronal network;
3. the development of cognition through opportunities to develop learning strategies, decision-making, acquiring / retrieving / integrating information and solving problems;
4. regulation of obesity because it increases energy expenditure, suppresses appetite, increases metabolic rate, and increases lean body mass;
5. aerobic fitness, muscle power, muscle strength, and flexibility;

6. cardiac functions as indicated by an increased stroke volume, cardiac output, blood volume, and total haemoglobin;
7. a more positive attitude toward physical activity which leads to a more active lifestyle during unscheduled leisure time;
8. the development of self-concept and self-esteem as indicated by increased confidence, assertiveness, emotional stability and independence;
9. the development and growth of moral reasoning, problem solving, creativity and social competence;
10. deterrence to mental illness and alleviation of mental stress;
11. deterrence to the depletion of bone mineral and lean body tissue in elderly individuals; and
12. prevention of the onset of some disease and postponement of the debilitating effects of old age.

There are benefits to society as well as to the individual. This section examines some of these from an often overlooked but highly politically powerful perspective; an economic one. This is particularly appropriate because the literature argues that political and economic processes affect the acceptance of curricula and programmes within schools.

Economic Benefits of Physical Activity: The Health Cost of Inactivity

There is a national health problem in Australia. Total expenditure on health in Australia has more than trebled since 1974. At the same time, expenditure on preventive health programs has represented less than half of one per cent of recurrent health costs (Department of the Arts, Sport, the Environment, Tourism and Territories [DASETT], 1988, p.1). The obvious question is 'why has this problem arisen, and how can we combat it'?

Amongst phenomena significantly contributing to this problem is the Australian population's relatively inactive lifestyle. The Australian Bureau of Statistics [ABS] (1992), found that less than six per cent of adults who assessed their health status as 'fair' or 'poor' had engaged in vigorous exercise in the two weeks before an interview and only nine per cent of persons classified as 'obese' had done so (p.1).

So why does an inactive population create a health problem? To answer this, one must examine the symptoms of the problem. Cardiovascular disease and lower back pain are predominant contributors to the current plight of the Australian general public. DASETT, citing the ABS (1988), stated that "in 1985, diseases of the heart were responsible for one third of all deaths, and heart attacks alone were responsible for more deaths than any other single cause" (p.4). According to the University of Queensland's Department of Human Movement Studies as many as eighty per cent of the adult population will suffer from lower back pain at some time in their lives (in DASETT, 1988, p.9). It was further asserted that regular exercise can largely prevent these two major diseases affecting Australians:

Epidemiological evidence...indicates that the active person has approximately 50% of the risk (of heart disease) compared to a sedentary individual . . . the potential benefits of regular physical activity in the prevention of low back pain (constitute) as much as (an) 80% reduction in risk. (p.3)

These two preventable problems constitute an enormous cost to Australia. DASETT (1988, p.22) estimate the economic benefits for every 10% increase in the population's involvement in regular physical activity at \$590.2 million annually, or approximately \$1.62 million per day.

Considering the benefits to personal and public health and the potential economic advantage outlined, it would be irresponsible, perhaps even immoral, to deny students the opportunity to develop understanding, knowledge and skills in, and positive attitudes towards, the movement culture during their formative years. Teachers have a professional, ethical and moral responsibility to develop approach tendencies amongst individuals, towards the movement culture. This has traditionally been one of the primary aims of physical and health education. Unfortunately, the aforementioned evidence suggests that these subject areas have not produced any lasting affect for most students. It is thus important to investigate conceptions of why sustained approach tendencies to the movement culture are not being developed, before examining ways of correcting the problem.

Problems in Physical Education.

Recent times have witnessed expressions of concern regarding the state of contemporary physical education in Australia. A zenith was reached with the national conference on the crisis in physical education at Deakin University in 1992 where the perceived reasons for the failure of physical education to achieve satisfactorily its obligations was the subject of discussion. These discussions gave rise to suggestions that superficial rather than real changes, laziness amongst teachers and lack of contact time with students have troubled the teaching of physical education (Alexander, 1991). Another problem identified stems from male dominance in the subject so that females have generally found it to be inequitable (Browne, 1991). The subject has suffered from the absence of a sound philosophical base (Garnaut, 1991), and increasing scientization in the form of human movement, physiology and biomechanics studies has hindered its educative contribution (Kirk & Tinning, 1990). These problems point to

faults with the delivery of physical education programmes rather than the underlying relevance of the subject. Therefore, for physical education to become more efficient in its purpose, an examination and subsequent identification of more appropriate methods of delivery, and perhaps even shifts in focus may be necessary.

Outdoor education, as a subject and a learning approach, may offer one solution. The next section considers the potential educational significance of outdoor education, examining its propensity for achieving the overall goals of physical education: The recruitment of individuals to a regular, satisfying and responsible engagement in the movement culture. Additional benefits potentially provided by the subject are also investigated.

Educational Significance of Outdoor Education.

The National Curriculum's (1993) identification of outdoor pursuits as a vehicle for pursuing learning outcomes in the Health and Physical Education Area has effectively given outdoor education a foothold in schools. Outdoor education is both a subject and an approach to education that is concerned with the overall development of the individual. Through experiential learning, it can provide benefits to a number of educational areas and can make a valuable contribution to the personal and social development of students. Sharp commented on the experiential mode of learning particular to outdoor education (cited in Hammerman and Hammerman, 1970): "Such learning is faster, more deeply appreciated and retained longer" (p.2). Outdoor education involves the use of six senses (sight, hearing, touch, taste, smell, and intuition), and is interdisciplinary in nature, covering a wide range of cross-curricular themes. It addresses all domains of learning and it involves the use and development of three types of skills: "Soft skills" (people skills), "hard skills" (technical skills), and

"integrated skills" (combining hard and soft) (Pearse, 1989, p.22). The combination of all the above traits leads to a learning approach that can contribute greatly to the development of individuals.

According to Mitchell (1992) "there is an essential need for adventure as a central part of the education of young people and a common emotional base of the human need for excitement and challenge" (p.20). Outdoor adventure activities offer an option to youth as avenues for the socially responsible pursuit of adventure and risk.

A number of studies have indicated that participation in outdoor adventure programs may be helpful in motivating students to improve their future academic performances (Gass, 1987; Hammerman, 1978). Knapp (1986) suggested that outdoor adventure activities could be useful in enhancing problem-solving skills and values. Ewert (1989) stated "the components of problem solving . . . lend themselves particularly well in an outdoor adventure situation" (p.53). According to Zook (1986) "outdoor adventure programmes may help provide opportunities to clarify the distinction between needs and wants" (p.56). This is because the demands of the outdoors (to travel lightly) can require individuals to prioritize obtainable needs instead of things they would like.

The basis of outdoor education lies in relationships: Interpersonal (with others), intrapersonal (with the self), ecological (ecosystemic interactions), and ekistic (between people and natural resources). If the ultimate goals of the Health and Physical Education Area are to be fully achieved, students must develop understanding and skills regarding each of these relationships. This need has been identified through recent articles which have pointed to widespread deficits in such skills. According to Haraway (1991), the ever-increasing interdependence between human and machine has resulted in the redefinition of humanity and an increasing

obscurity between the boundaries separating them (cited by Gough, 1992). An examination of modern youth culture reveals the increasing confusion between the human-technology interface (Tinning & Fitzclarence, 1992). Gough (1992), commenting on this confusion, cited Wark (1991) and Franklin (1990) who suggest movies such as "Blade Runner", "The Terminator", "Robocop" and "Total Recall"; cartoons such as the "Teenage Mutant Ninja Turtles" and "Transformers", and the increasing popularity of television and video games is symptomatic of the way in which humans; and modern youth in particular; have lost touch with nature (p. 4). Outdoor education aims to reunite humans with humanity, decreasing the natural "dehumanisation" aspects of modern Western society and technology, in particular. This action of re-establishing the ecological and esthetic relationships is vital if humans are to avoid the already emerging self-destructive, demoralised and dehumanised Western society.

One of the foremost consequences of the separation of people and nature is the current deplorable state of the environment. Problems such as global warming, deforestation, acid rain, ozone depletion, overpopulation, land degradation and species extinction are examples of the challenges humankind must address (Priest, 1991). The preparation of a coordinated effort is vital to attack successfully these problems. This agenda can begin with the education process. At present, there is insufficient united effort in Australian education addressing such environmental concerns (McRae, 1990).

As a means of seeking to enhance a range of human relationships, outdoor education has been widely used. An example of this utilisation concerns youth at risk, where programmes have operated in all Australian states through direct government funding (McRae, 1990). Examples of successful ventures include the Cobham Survival Programme, Mitagundi,

and Project Hahn. This particular utilisation of outdoor education originated in the 1960s (Kelly and Baer, 1968) and is still developing today. Research into outdoor education for these groups concentrates on personality attributes, recidivism rates and cost-benefit analysis and is generally supportive of the programmes' effectiveness as therapeutic tools (McRae, 1990). If outdoor education programmes can achieve success with such marginalised groups of students, few could deny the subject's potential for the personal growth of all students.

In summary, this section has shown that:

Australia has health problems significantly contributed to by sedentary lifestyles;

society is largely preoccupied with experiences through technological media rather than physical activity;

a means of resolving these problems, developing approach tendencies to the movement culture, is not being adequately achieved;

the traditional vehicle for recruiting individuals to the movement culture, physical education, is in crisis and we need to examine alternative programmes or methods of delivery that can succeed where this subject area is presently struggling;

there is a need for a subject that can motivate students, develop relationships amongst people and between people and the environment; and outdoor education has the potential to achieve this.

In conclusion, outdoor education should be an integral aspect of the education of children. This acknowledgment that there is an implicit need for the subject in education leads to the identification of a problem potentially worthy of the attention of research. The following section provides a statement of the problem which drove the study.

Statement of the problem

National documents identify outdoor education as a fringe subject under the mantle of health and physical education. This is an example of outdoor education's peripheral standing which potentially contributes to what some claim is a marginal placement in the school curriculum (Keighley, 1989; Mitchell, 1992). Furthermore, despite the educational potential of outdoor education, it appears that few existing programmes are well developed (Huskins, 1991; McRae, 1990; Raffan, 1990). This evidence suggests a valuable avenue for developing approach tendencies to the movement culture is not in a position to achieve its educative potential.

Research has been largely pragmatic in focusing on the processes and products of outdoor education learning experiences (Crompton & Sellor, 1981; Stich, 1983; Young & Crandall, 1984). This has led to an overemphasis on measurement and a deficiency in conceptualisation (Ewert, 1989; Shore, 1977). Studies on disciplinary issues have rarely recognised their relationship to programmatic issues (Shore, 1977). From such deficiencies arose the need to examine aspects of curriculum in outdoor education. What is the scope of programming? Who are the groups involved in the process? What are some of the limitations to developing formal curricula and implementing programmes?

Examination of perceptions about one part of the curriculum process, the motivating factors for inclusive or exclusive content selection, may yield valuable information regarding teacher involvement in shaping the curriculum and the influences that may be contributing to problems in outdoor education.

The study's significance lies in the fact that, although previous research has suggested general factors thought to affect programmes across all subjects, there are few to date that deal specifically with outdoor

education. Furthermore, the study's potential to unearth factors previously unrecognised as major influences contributing to disparities between formal curricula and programmes could have serious and important ramifications for teachers operating in a micro-political curriculum decision-making context in schools. For example, the selected schools could become more aware of how they should go about changing or improving their outdoor education programme if they desired. At a macro-political level, Education Ministries and contributing bodies could become more aware of the practical forces influencing the use of their documents, and thus make more informed decisions about policies affecting the subject.

Research questions

It is now possible to state the following research questions:

1. To what extent are there similarities or differences between the outdoor education formal curricula at selected schools, and those of the Ministry of Education?
2. What are the major factors identified by teachers which influence content selecting when developing or changing their outdoor education formal curricula?
3. How do the factors identified by teachers affect their choices of formal curriculum content?

Summary

This chapter has argued a case for outdoor education in the schools. By acknowledging the potential benefits of outdoor education, a problem worthy of research was outlined. This problem gave rise to a set of research questions. Having identified the area to be investigated, it is now important to investigate the literature to identify what is already known about the area. Chapter two synthesises a range of related literature to inform the study.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

This literature review firstly discusses the meaning of the term curriculum since studies claiming to examine curriculum can be seen as problematic. It then provides an historical overview of research into curriculum planning in Australia, providing a critique of the predominant curriculum planning model and examines trends in curriculum decision making. It then outlines sources investigating general influences overriding all curriculum development. The literature review is unable to proceed beyond this due to the absence of such studies specific to outdoor education.

Chapter three explains that this study uses the naturalistic paradigm for research. It is important to comment on this here since the inductive nature of naturalistic inquiry has specific implications for the literature review. According to Strauss & Corbin (1990), there are five functions of technical literature for such studies:

To stimulate theoretical sensitivity (providing previous concepts and relationships that can be checked against the data);

as secondary data sources;

to stimulate questions (to respondents);

to direct theoretical sampling; and

to supplement validation.

This utilisation of technical literature informs and validates the emerging theory whilst not imposing the constraints of a priori assumptions. The review was utilised intensively after categories and relationships had emerged so that the theory was informed, rather than contaminated or inhibited, by excessive reliance on the literature.

Problems with the term curriculum.

Researchers often treat the term curriculum as unproblematic. However it has been used to represent varying concepts. These conflicting conceptions include curriculum as plans, processes, content, experiences, omissions and intended or unintended (hidden) outcomes (Cohen, Deer, Harrison & Josephsen, 1978; Eisner & Vallance, 1974; Seddon, 1983; Taylor, Reid, Holley & Exon, 1974)

Furthermore, Eisner & Vallance (1974) describe three fallacies common to many arguments about curriculum. These are listed as “formalism, content and universalism” (p.14). The fallacy of formalism refers to the belief that what people learn is not as important as how they learn. The fallacy of content refers to a preoccupation with the importance of what rather than how students learn. The fallacy of universalism argues for the universal significance of certain content areas regardless of the characteristics of the student. According to Eisner & Vallance (1974) this fallacy “removes curriculum decision making from the arena of the empirical study of its context, placing it in the arena of rhetoric” (p.16).

This study is concerned only with the preparation of the formal curriculum. It does not judge content, goals or methods, and thus avoids the first two fallacies. The process of examining the Ministry of Education’s (1990) formal curriculum as a given could expose the study through the third fallacy. However this is avoided since the researcher did not expect that schools would choose all of the content from this formal curriculum. Indeed the whole acknowledgement that only a selection is taken constitutes an initial assumption of the study. The formal curriculum itself states: “This publication is not intended as a complete resource and teachers . . . should feel free to add these (ideas) to the unit” (Ministry of Education, 1990, p.vii).

Curriculum decision-making in Australia

The last thirty years have witnessed attempts to decentralise curriculum decision-making. The Karmel Committee (1973), investigating the needs of Australian schools, suggested the devolution of responsibility for planning to people involved in the actual task of schooling, believing that those responsible for carrying out decisions are most able to make them responsibly, given they have an obligation to justify them and stand to profit from their experience. The Beazley Report (1984) further promoted the decentralisation of decision making power in Western Australia.

Despite these developments, there is a degree of uncertainty about who controls the curriculum in the 1990's. It appears centralised control, now characterised by ideological rather than bureaucratic methods, have replaced the school based curriculum policies of the seventies and early eighties (Cherryholmes, 1987; Kemmis, 1990; Prideaux, 1993). The student outcome statements in the National Curriculum constitute evidence of this tendency toward centralised control. It is also implicitly illustrated by recent suggestions that teachers reestablish control over the curriculum using a combination of post-modernist reconstruction and modern critical pedagogy (Cherryholmes, 1987; Giroux, 1988; Gough, 1991). Regardless, teachers are likely to continue to work pragmatically, responding to a practicality ethic (Doyle & Ponder, 1978) in which everyday concerns such as managing student behaviour, minimising preparation time and covering assessment points dictate many of their decisions. Thus we see teachers as gate-keepers - screening curriculum against their practicality ethic. This maintains a teacher-centred control of the curriculum (Marsh, Day, Hannay & McCutcheon, 1990). A fundamental problem with external agencies imposing curricula upon education is that teachers are the ones who ultimately must implement them. Accepting new or different curricula

requires that teachers challenge their own ideologies, a process that can undermine their comfort with current practice. This results in problems such as a loss of status, threats to individual self-concept, de-skilling, the need for increased effort, adverse effects on career or external needs, a shifting of the locus of control, and a loss of professionalism (Sparkes, 1990).

Various attempts to depict the curriculum decision-making process have often reflected the ebb and flow of political climate and the resultant shifts in locus of curriculum control. The following section critiques some traditional models used in research into curriculum decision-making.

Models for curriculum development.

Researchers traditionally view curriculum development and modifications from a rational scientific point of view (Zais, 1976). The traditional rational curriculum planning model in Figure 2 portrays curriculum development as a systematic, objective process. Such a view assumes professionals construct the curriculum through conflict resolution based on analysis, reason and principle. Criticism of this model centres on the way the model oversimplifies the decision-making process, and relies on behaviouristic premises (Cohen, 1974; Marsh & Stafford, 1984; Skilbeck, 1975; Walker, 1975).

Cohen & Harrison (1982) suggest an interactive people centred model as shown in Figure 3. This may be a more appropriate approximation to the curriculum development process since it acknowledges teachers as critical stakeholders in implementation and implies that the curriculum development processes operate within, and react to, specific contexts. Furthermore, it portrays the curriculum decision making process as dynamic and interactive.

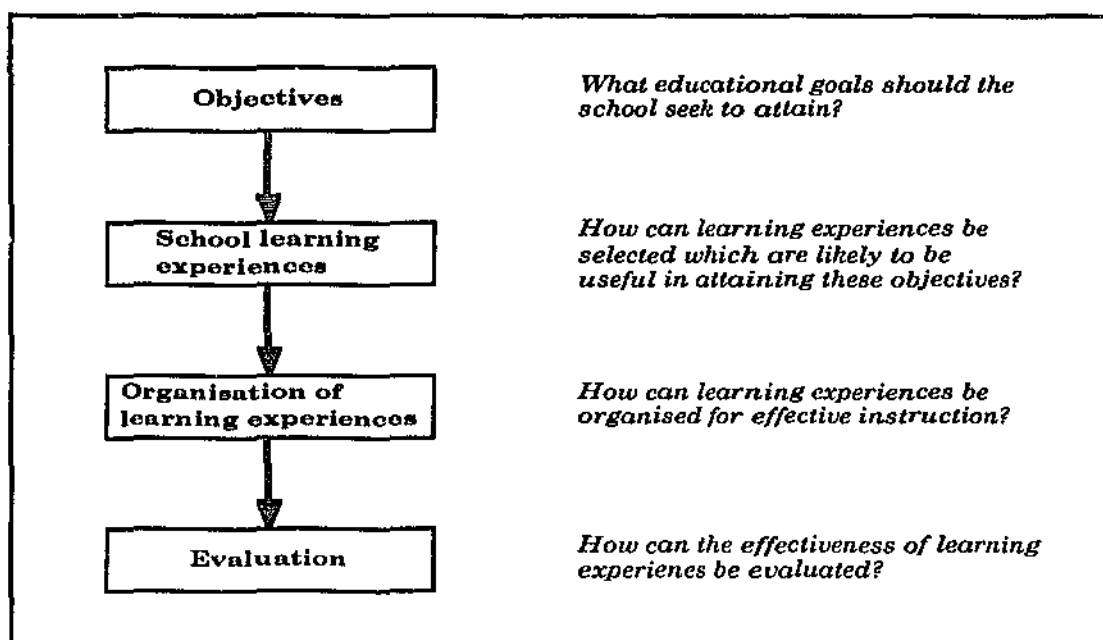


Figure 2. Sequential steps in the rational curriculum planning model.

Note. From Curriculum Development in Australia: Presage Process Product (p. 58) by L. Brady, 1983, Sydney: Prentice-Hall.

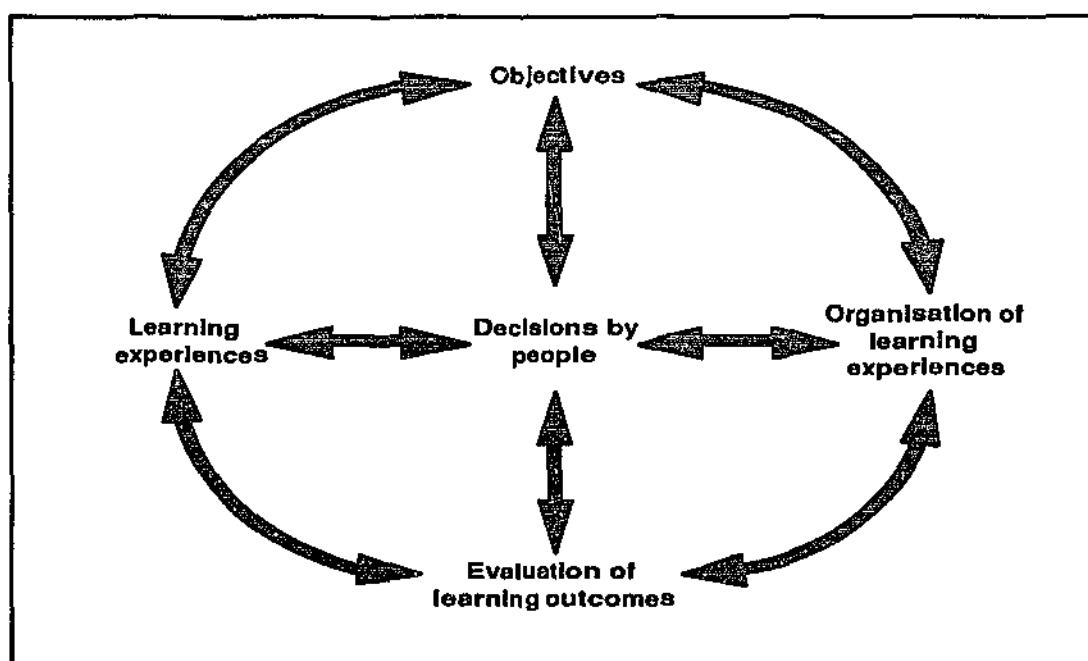


Figure 3. Interactive people-centred model for curriculum planning.

Note. From Curriculum Action Project: A Report of Curriculum Decision-Making in Australian Secondary Schools (p. 12) by D. Cohen and M. Harrison, 1982, Sydney: Macquarie University.

According to Zais (1976) teachers rarely regard ongoing formal curriculum development as a professional responsibility. Their foremost concerns favour the personal benefits accrued from avoiding change by remaining within the comfort of established routines and curricula (Sparkes, 1990). Herron (cited in Zais, 1976) suggested teachers, as a group, have little knowledge, either of the foundational aspects or of the rationale for their programmes. As Herron pointed out, curricular implementation will be unsuccessful until the people who implement them fully understand, and agree with, their theoretical basis. Martin-Kniep and Uhrmacher (1992) argued that teachers are incapable of taking responsibility for ethical and ideological issues in curriculum planning. They suggested teaching and curriculum development require different types of skills, working styles and background knowledge. Therefore, many competent teachers lack the skills to adequately plan curricula. In particular, the "challenge of generating a conceptual framework" is above and beyond most teachers (p.268).

This literary evidence has highlighted a need to investigate reasons why teachers include or exclude certain aspects of the central formal curriculum (Davis, 1980). The systematic study of these factors can provide valuable information for teaching practices in outdoor education. Central to such research is the targeting of important features of programmes and the probing of factors that influence them (Anderson, 1988). The following section examines some findings of research that has sought to identify factors that affect curriculum decision making.

Factors Influencing Curriculum Decision-Making

This section summarises the literature relating to the major influences on curriculum decision-making under three main headings adapted from Berman (1981), Duncan & Biddle (1974), Fullan (1991), and Kimpston and Rogers (1986). The headings are:

- (a) Characteristics pertaining to the formal curricula;
- (b) contextual factors; and
- (c) external factors.

Each of these is now reviewed.

Characteristics pertaining to the formal curricula.

The literature discusses characteristics pertaining to both centralised and school-based formal curricula. Five main constituents are identified: practicality; clarity; complexity; quality of materials and need (Berman, 1981; Doyle & Ponder, 1978; Fullan, 1983; Rosenblum & Louis, 1981; Sparkes, 1990). This section discusses each of these in turn.

Teachers approach planning issues using a practicality ethic (Doyle & Ponder, 1978), judging whether the formal curriculum is worth the personal effort required to implement it. If the personal rewards of implementing certain aspects of the central formal curriculum are perceived to be few, a complete selection of content by teachers when planning their own formal curriculum is unlikely (Sparkes, 1990).

The degree of clarity about overriding goals, strategies and outcomes is an important aspect of the reasons for the degree of selection of content from a central formal curriculum (Doyle & Ponder, 1978; Fullan, 1983; Sparkes, 1990). Fullan (1991) suggested further that 'false clarity', or an underestimation or oversimplification of curriculum intentions makes curriculum decision-making problematic (p.35).

Complexity refers to the difficulty and extent of effort required by the individual for implementation of the formal curriculum. A number of major studies identify this as an important determinant in curriculum planning (Berman, 1981; Huberman & Miles, 1984; Rosenblum & Louis, 1981).

The quality of the learning materials available is a further factor believed to be associated with formal curricula. If learning materials to support the central formal curriculum are unavailable, incomplete selection of content is likely. Furthermore, if teachers perceive the quality of available materials to be poor, they will be less likely to use them (Rosenblum & Louis, 1981) and therefore less likely to select the corresponding content.

Finally, an assessment of teachers' pragmatic needs rarely guides centralised curriculum development. Political decisions often motivate changes in education, failing to be sensitive to the individual members of the system. Research suggests the question of perceived need influences teacher acceptance of content. Louis and Rosenblum (1981) identified "the degree to which there was a formal recognition within the school system of unmet educational needs" as an important factor affecting planning behaviour (p.90). Other studies have indicated that the acceptance of centralised formal curricula by teachers increases in likelihood where there is an identification and acknowledgment of specific needs (Emrick & Peterson, 1978; Louis & Sieber, 1979).

Contextual factors.

Contextual factors include the climate and the individual characteristics of the school, district and community, how they affect the consideration of a given central formal curriculum and under what conditions its implementation is likely. The important constituents in this area concern the teacher, the pupils, the school and community and the classroom (Berman, 1981; Duncan & Biddle, 1974; Fullan, 1983).

Duncan and Biddle (1974) suggest a list of teacher presage variables that influence the selection and implementation of a formal curriculum.

These include: Teacher formative experiences such as socioeconomic class, age and sex; teacher training experiences such as university attended, features of training programme and practice-teaching experiences; and teacher properties like teaching skills, intelligence, motivations and personality traits. Often, a lack of teacher skills or experience results in programme limitations (Huskins, 1991). The compatibility of teacher perceptions of their levels of expertise and programme implementation demands seems to have a significant influence on teacher planning.

Pupil-based constituents include their formative experiences, their measurable personality characteristics and worldviews (Beavis & Gough, 1991; Duncan & Biddle, 1974). Formative experiences consist of factors such as social class, age and sex; whilst properties of students include their knowledge, attitudes, and abilities (Duncan & Biddle, 1974). The idea that children's worldviews impinge on curriculum implementation is becoming increasingly recognised. Children carry their worldviews and out-of-school experiences into the education process affecting how they perceive their classroom encounters (Beavis & Gough 1991). Education has, for too long, held false beliefs regarding the supposed isolation of in-school experiences from the outside world. This is significant for teachers. For example, children are provided with a plethora of entertainment options. Most school experiences cannot compete with these, leading many students to regard too many of their school-based educational experiences as banal and irrelevant. This aspect of the modern youth culture carries implications for curriculum decisions. Negative student attitudes can be misjudged by teachers as indications of the impracticality of modern schooling, rather than as flaws in presentation of programmes. This may make teachers hesitant to take responsibility for curriculum planning, perceiving the rewards for such effort to be insufficient.

School and community constituents cover a wide range of important areas. Factors associated with school and community constituents include the numbers of staff and students, facilities and funding available, travel requirements, the ethnic composition of classes, parental attitudes, the political climate of the school, teacher attrition and promotion, in-servicing opportunities and the systems for communication of information and needs within the school (Duncan & Biddle, 1974; Fullan, 1983). Classroom constituents include class size, availability of materials (Duncan & Biddle, 1974), and gender ratios.

External factors affecting the likelihood of implementation.

The factors affecting the likelihood of formal curriculum implementation include availability of finances and materials at State and Federal levels, technical assistance from external agencies and policy change. Pellegrin (1966) suggested the greatest stimuli to changes in education originate, not from within-subject motivation, but from sources external to the field, such as the suppliers of curriculum materials. For example, by producing the rationale and resources for Unit Curriculum (Ministry of Education, 1990), the Western Australian State Government increased its prescriptive control over education, despite its intention to devolve decision making power to schools. Furthermore 1993 heralded the development of a National Curriculum with its attendant curriculum guidelines for all Australian schools. There is an underlying need to direct research towards policy making and curriculum development, specifically to find out how these aspects of education interact with and correspond to implementation.

Although the act of devolving power to the schools has taken the burden of many financial decisions away from the centralised Ministry of Education bureaucracy, the overall provision of funding is still a State and

Federal Government responsibility. Therefore, changes in state or national wealth will have repercussions affecting the availability of funding for schools and their ability to implement programmes, which leads to prioritising of subjects. Related to this is the degree to which governments direct efforts to the development and provision of resource materials.

Technical assistance is also an external factor affecting planning and implementation (Fullan, 1991). Programme limitations arise when teachers perceive personal deficits in either hard skills (outdoor activity performance skills) or outdoor leadership experience. These limitations are caused through fear motivated by injuries and fatalities that have occurred in the field. According to McArthur (1992), the result is a 'can't do' rather than a 'can do' approach to teaching the subject (p.9). Therefore, the availability of technical assistance from specialist organisations with experience and safety knowledge makes certain activities more attractive to teachers and schools. For example, the Australian Canoe Federation has recently established a Board of Canoe Education, providing a valuable foundation for the successful implementation of canoeing from outdoor education formal curricula in Western Australian schools.

Policy change is an important area affecting the likelihood of the implementation of a formal curriculum. Koogan (cited in Patterson and Rowland, 1990) stated that "educational policies and values interact with the moods and circumstances of their periods and as such are particularly prone to change as social and economic circumstances change" (p.13). Examples of policy changes from external agencies that will bear direct influence on outdoor education in the schools are the impending National Curriculum and the moves for national regulation of qualifications in the outdoor pursuits field.

Theoretical framework.

According to Goetz and LeCompte (1984) theoretical frameworks should indicate how the concepts and constructs that are abstracted from the research are expected to interact or interrelate. Where a suitable, case-related empirical basis for the relationships is not available from a literature, as in this case, they consider a conceptual framework should be derived from the theoretical background. The factors described in the literature review therefore represent constituents of a conceptual framework for the study (see Figure 4 for a diagrammatic representation). Although the literature tends to identify influences as independent variables, the conceptual framework developed is only prescribed as a tentative attempt to simplify and describe the possible existence of, and interrelationships among, the influences on outdoor education teachers' formal curriculum content selection for the selected schools.

The research findings are not expected to confirm this framework since it seeks to identify only those factors foremost in teachers' perceptions of key influences. Furthermore, the specific application of this general framework to outdoor education may generate additional factors. The inductive nature of a naturalistic, descriptive study allows for such developments.

The ultimate goal of this research is to produce a substantive theory which can explain how factors influence decisions about content selection by teachers. According to Goetz and LeCompte (1984), such a theory is "a set of interrelated propositions or concepts lodged in particular aspects of population, settings, or times. It is restricted to features of populations, settings, and times that can be identified concretely" (p. 38).

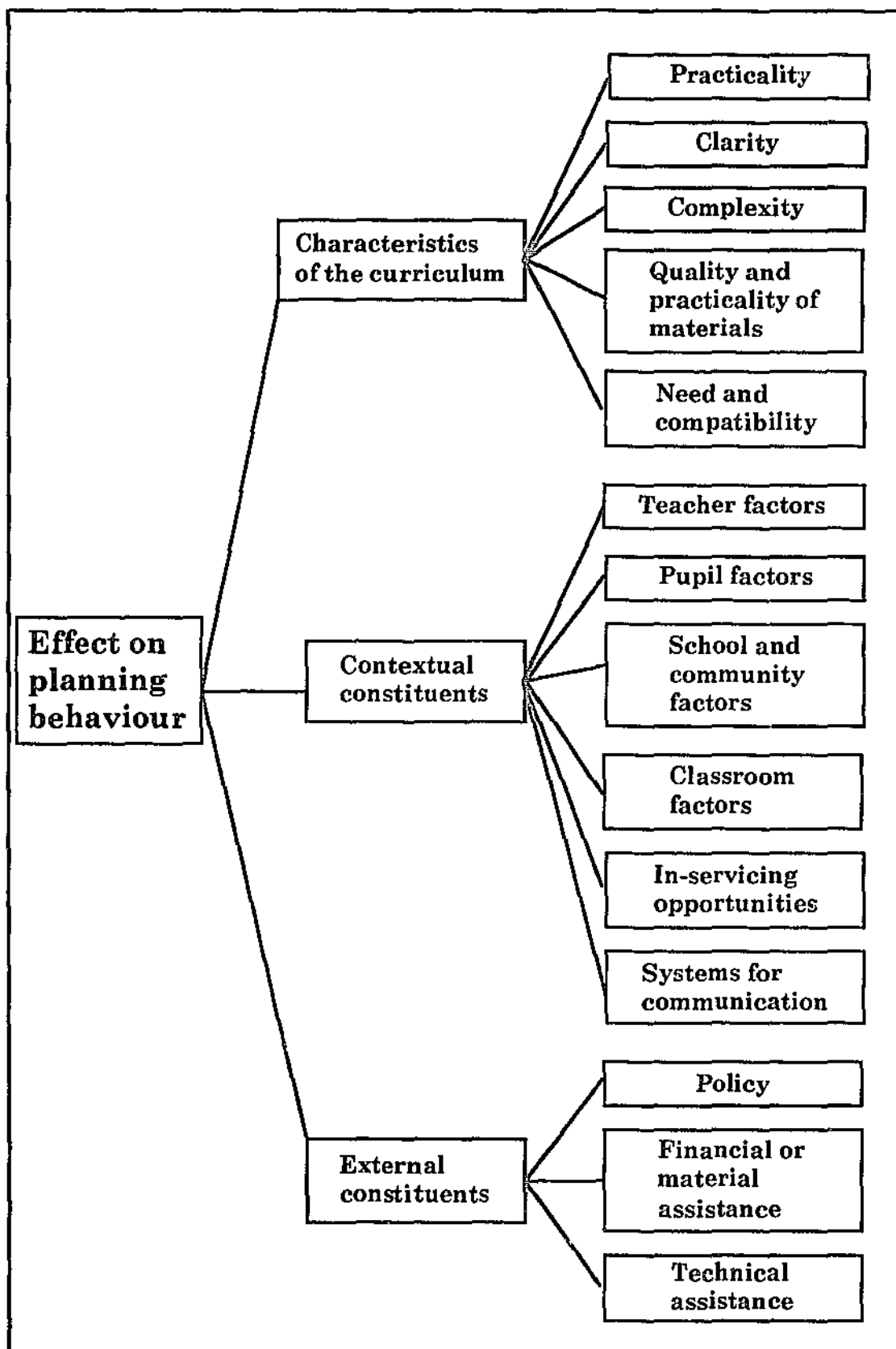


Figure 4. Conceptual framework for the study showing suggested links between factors identified by the literature.

Summary

A wide range of themes have been examined in this chapter, all of which are important to the study. Unlike positivistic studies, the literature review for naturalistic studies needs to be eclectic such that it may account for the divergent, holistic reality they recognise. Chapter three examines the methodological issues faced in developing a research design.

CHAPTER THREE

METHODOLOGY

Introduction

The research questions dictated the choice of method for the study. The questions arose from the conceptual framework and the nature of the problem. This section outlines several important deliberations made in developing a research method. Firstly, the philosophical assumptions are outlined. Secondly, the research design is discussed including a description of the schools to be studied. Thirdly, an examination of the methods of data collection is structured by the respective research questions. Fourthly, is an explanation of data analysis methods. Finally, the chapter concludes with authenticity and ethical considerations.

Philosophical Assumptions

The epistemological and methodological assumptions underpinning the study are important and need explication. Findings can vary greatly depending on the conceptual base from which they are derived. This section outlines four tenets upon which the study is built. Firstly, a stance is taken on the study of teacher planning and programme implementation. Secondly, assumptions about the nature of schools are outlined, leading to a rationale for the selection of the naturalistic research paradigm for this study. The section concludes with a statement regarding the interpretation and use of an individual's perspectives on events pertinent to the study.

Two Approaches to the Study of Curriculum

Fullan (1991) highlighted two schools of thought regarding the study of curriculum. The fidelity approach attempts to measure the extent to which a programme corresponds to its formal curriculum.

A second school of thought, the mutual adaption perspective, stresses that a programme is a result of adaptations made to the formal curriculum through decisions made by the user, and thus attempts to highlight its complexities. This study follows the mutual adaption approach since it considers planning to be an ongoing and interactive process, performed within specific contexts.

Assumptions About the Nature of Schools

Rogers (cited in Murdoch, 1992) suggested that schools, as social institutions, require a research approach that recognises that:

Institutions are holistic and people and institutions shape each other;

intensive study of a given phenomenon over a sustained period of time is essential;

the most effective way to study a social phenomenon is through direct, on-site, face-to-face contact with the people in question;

what people do is often different from what they say and do; and multiple realities exist in any situation.

This study assumes these characteristics of schools and as such, they are integral determinants of the selected method of inquiry.

Research Paradigm

A naturalistic approach, the author feels, would most appropriately address the research questions. According to Miles and Huberman (1988):

Qualitative data...are a source of well-grounded, rich descriptions and explanations of processes occurring in local contexts. Within qualitative data one can preserve chronological flow, assess local causality, and derive full explanations [and] qualitative data...go beyond initial preconceptions and frameworks...the findings from qualitative studies have a quality of undeniability. (p15)

There is an abundance of literature advocating a naturalistic approach to studies such as the one proposed. Glaser and Strauss (1967) and Patton (1980) argued that theory about the social world is best generated inductively from the data rather than by dictating relevances in concepts and hypotheses beforehand. Ewert (1987) stated: "life is not so episodic that one event, even in experiential education, is unrelated to the other aspects of one's existence" (p6). Rowley (1987) suggested that qualitative research offers outdoor educators "an important way to substantiate and bring legitimacy to (research theory), some of which could not be confirmed employing quantitative methods" (p9). These views, combined with the previously discussed epistemological and ontological assumptions regarding the nature of schools, strongly suggest that a naturalistic approach to addressing the research questions be employed.

A Social Cognitive Approach to Studying Teachers' Perceptions

According to Kauffman (1989) social cognitive theory examines human behaviour from a naturalistic perspective by integrating knowledge about environmental effects (the behaviourist position) and the role of cognition (cognitive psychology). Past scientific evidence has suggested that the consequences of our behaviour affect the way we are likely to behave in the future. But whilst behavioural theory may be useful in applied settings where immediate analysis and treatment is necessary, it fails to explain fully the complexities of human conduct.

Social cognitive theory emphasises personal agency, the ability of humans to use symbols to: Communicate; anticipate future events; learn from observation or vicarious experience; evaluate and regulate themselves; and be reflectively self-conscious. In this way, personal agency adds a needed dimension to a behavioural analysis and provides a more complete explanation of human behaviour. According to Bandura (1991) future

events cannot be causes of present motivation and action, but by being represented cognitively in the present, conceived future events are converted into current motivators and regulators of behaviour. People possess self-reflective and self-reactive capabilities that enable them to exercise some control over their thoughts, feelings, motivation, and actions. Human functioning is thus governed by an interplay of self-generated and external sources of influence. The implication for this study is that, by examining teachers' perceptions of factors affecting the implementation of formal curriculum from a social cognitive perspective, the research is able to make use of their constructions by speculating to the operant impact of likely subsequent behaviour. This is the tenet upon which the credibility and significance of the study rests.

Sample for the Study

According to Leedy (1989) "the population for the study must be carefully chosen, clearly defined, and specifically delimited in order to set precise parameters for ensuring discreteness to the population" (p.142). A selected sample of two Western Australian Government Senior High Schools was utilised. Selection criteria sought maximum variation of programmes. By selecting two different programmes, data regarding influences on programming within the schools were enriched, allowing for the different forces created by the differing needs of respective programmes and contexts.

This study was not concerned with establishing generalisability across the state, or even across the metropolitan area. Its aim was to provide a rich source of information relative to the respective schools, which could be used by others in the field to determine the relevance of the findings to their own situation. It also attempted to establish a base upon

which further research could build. Hence a large sample was inappropriate for the study's purposes.

School A contains approximately twelve hundred students and seventy teachers. There are three teachers and approximately two hundred students involved in outdoor education in Years 9-12. In lower school (Years 9-10) each student in outdoor education attends one forty minute lesson and one eighty minute lesson per week. Years 11 and 12 have two forty minute lessons and two eighty minute lesson per week. Attempts are made to conduct these lessons immediately prior to recess or lunch to utilise some extra time. Outdoor education has one school bus available for transport, however hire buses are used for all expeditions. The school is situated in an area close to both the coast and the river.

School B contains approximately fourteen hundred students and eighty teachers. There are two teachers and approximately three hundred students involved in outdoor education in Years 9-12. A flexi-time system has been developed to escape the constraints of the timetable. Through this agreement, lessons may begin at any time during the day, with students being let off early to compensate. The subject has two school buses for transport, which are also used for expeditions. The school is situated in area proximate to both natural bushland areas and the river.

Research Design

Despite the large number of texts dealing with naturalistic inquiry and its attendant methods, there is inadequate attention to the systematic handling and interpretation of qualitative data typically generated by such research (Lincoln & Guba, 1985; Miles, 1979; Richards, 1991). Due to a combination of this problem and the lack of agreement between existing texts, Richards argues that "qualitative theses have a particular need for

literature searching about method . . . and attention to the justification of a research design" (p.39).

The use of teachers' perceptions allows access to an important, yet often neglected, source of information. Viewing the factors that affect the offering of outdoor education from the perspectives of those involved in the day-to-day realities of teaching, adds an important dimension to an understanding of, not only what the major factors might be, but what roles the teachers themselves play in programme development.

Data Collection

The data collection methods were selected for their ability to generate answers to the research questions. To enhance clarity, this section is structured by the research questions. The following data collection techniques were chosen.

Research question 1.

To what extent are there similarities or differences between the outdoor education formal curricula at the selected schools and those of the Ministry of Education?

This involved a document analysis from the two sources. The specific objectives for outdoor education were compared. Fundamental differences between the documents precipitated the use of an interpretive analysis and, since their presentation formats were different it was important to identify and use the documents' most prescriptive statements to minimise the possibility of interpreter-error. The schools had no written materials providing a lesson by lesson coverage, so the most accessible material lay at the specific objective level.

Research question 2.

What are the major factors identified by teachers which influence content selection when developing or changing their outdoor education formal curricula?

Semi-structured individual interviews were used in this study in order to document the perceptions of teachers. To best approximate their true perceptions, it was important that informants be able to provide an open and spontaneous viewpoint. Interviewing offers important advantages over questionnaires when considering perceptions. According to Gay (1991) "an interview can produce in-depth data not obtainable with a questionnaire. The interview is most appropriate for asking questions . . . of a personal nature" (p.112). Interviews yield a higher quality of data since the interviewer is able to notice and correct the informants' misunderstandings and to probe inadequate or vague responses. Dependence on the informants' reading and writing ability is eliminated. Interviews also allow for the control of the context for inquiry and question order (Judd, Smith & Kidder, 1991).

According to Patton (1980), the primary data of an in-depth open-ended interview are quotations "there is no substitute for these data" (p.246) Therefore, some method of recording the verbatim responses of the subjects was essential. An audio-recorder was used, increasing the accuracy of data collection by obtaining a permanent verbatim record of the account and freeing the researcher to be more attentive to the verbal and non-verbal behaviour of the informant, monitoring responses for evidence of misunderstanding or vagueness; searching for inconsistencies and thinking about questions to come.

An interview guide was developed, tailored to the context in which the interviewee operates (Donaghy, 1984). Three broad categories of

questions were to be asked. According to Spradley (1979) these are 'descriptive', 'structural' and 'contrast' questions (p.67). Descriptive questions seek a sample of the informant's language, whilst structural questions consider the way in which the subjects organise their knowledge. Contrast questions seek to find out what the informant means by the various terms they employ in their language (Spradley, 1979). To contribute to the richness of the data, a mixture of each of these types of questions was used during the interview.

The schedule for the interviews was consistent for all informants. They opened with an explanation of the format and purposes of the interview. The requirements were explained, an approval to audio-tape the session was sought and the informants' confidentiality was reinforced. Secondly, a number of basic, non-interpretive demographic questions were posed. These can be readily addressed and help the informant to relax, gain confidence and are intended to facilitate a rapport with the interviewer (Goetz & LeCompte, 1984). Questions throughout the interview were of a semi-structured, open-ended nature. A fully-structured format was avoided due to risks of obtaining responses that were the result of interviewer construction, instead of being offered by the informant as a true perception. However, application of some sort of structuring, as opposed to an open format, was considered advantageous because it could ensure that all areas, important to the study were covered (Donaghy, 1984). Without structure it is possible that informants may omit some of their perceptions, not realising their importance to the study.

The interviews closed with a summary from the interviewer regarding the facts uncovered. This acted as a primary check that the information had been clearly worded by the informant. A broad, open-ended question was asked such as "is there anything further of interest you would like to add?". Here, the subject was able to clarify any points and add any

additional thoughts. Finally, the informants were thanked for their participation and reassured of the value of their time and comments. According to Donaghy (1984) "many respondents have had little experience and need reassurance that they have been helpful" (p.219). This helped the informant maintain confidence about their ideas and concluded the interview on a good note, maintaining rapport for any required follow-up. The interview guide is included in Appendix B.

Research question 3.

How do the factors identified by teachers affect their choices of outdoor education content when developing or changing their formal curricula?

Answering this question resulted in the induction of a substantive theory. The theory was developed through conceptualisation and categorization performed during the data analysis. The methods for this process are reported in chapters 3 and 5.

Instrumentation

With interviews forming the predominant data gathering technique, the researcher becomes the main instrument for the study. Guba (1981) contended that researchers using the naturalistic paradigm should be especially aware of the role of their own biases and predispositions can play when they use themselves as instruments and, therefore, they should shift the burden of neutrality from the investigator to the data. As a consequence, this thesis provides evidence of the confirmability of the data produced in the form of interview guides, thick description of findings and interview summary sheets. Furthermore, the act of peer-checking of codes and corroboration of interpretations of findings helps to increase confidence that the categories and constructs came from the data, not the researcher's prejudices.

The bracketing of personal values, beliefs and preconceptions act to heighten self-awareness and to avoid the imposition of such bias during interviews, analysis and interpretation (Berger & Kellner, 1981). This was achieved through a self-interview, recording my own perceptions of the phenomena under study. These were repeatedly referred to, with constant effort being made to avoid imposing them on the study. The main preconceptions of the researcher identified through self interview pertained to:

- (a) A perceived concern for safety issues by outdoor education teachers, which proved to be of relatively minor concern to teacher when selecting content;
- (b) a belief that the Ministry of Education formal curriculum was rarely utilized by teachers when selecting content for their own formal curricula, later confirmed by a document analysis; and
- (c) an assumption that school administrators - especially the school Principal - would have significant control over what was offered, later disproven by the data.

When piloting the interview guides, it became apparent that some leading questions were being asked. This tendency was corrected before beginning interviews in the schools, and a deliberate effort made to remain diligent in this regard throughout the research.

With the data collection methods having been explained, an explanation of methods for analyses seems timely. According to Goetz and LeCompte (1984) the analyses of interview data in naturalistic studies differ from those used in other research designs. The next section reviews and describes the methods used.

Data analysis.

According to Lincoln & Guba (1985), the process of data analysis in the naturalistic paradigm is essentially a synthetic one, in which "constructions that have emerged (been shaped by) inquirer-source reactions are reconstructed into a meaningful whole" (p.333). Data analysis is thus inductive. To ensure the reconstructions performed by the researcher are credible and plausible, data analysis must be systematic and rigorous. Although some would argue about the degree to which a naturalistic inquiry can be systematic, Holsti (1969) argues the inquiry must "conform to certain general canons of category construction . . . (so that) the inclusion or exclusion of content is done according to consistently applied rules" (p.4). As such, coding followed two steps identified by Lincoln & Guba (1985): Unitization, where the data is deconstructed to heuristic blocks of minimal size (line by line); and categorisation, where the blocks are grouped and sorted according to assigned, representative codes.

Continual and repeated access to the original conversation was made possible through audio-recording of interviews. This provided a permanent reference to expression and accentuation within responses which reinforced the intrinsic adequacy of the data analysis.

The research design avoided the imposition of a priori categories. The aim was to induce results, and thus informants' perceptions were organised into categories which were systematically related. The researcher's goal was to employ methods of analysis that lead to discovering the respondents' organisation of knowledge (Spradley, 1979). Once this process was accomplished, the researcher then examined the categories in relation to those previously identified by other studies. In this way, the sum of knowledge was built upon without imposing a priori assumptions that could potentially skew the results.

The analysis of interviews was undertaken using a method adapted from Strauss and Corbin (1990). The first step involved the complete transcription of the recorded interviews. The transcriptions were then described by a process of detailed open coding. This was performed in three stages. Firstly, the researcher used the constant comparative method during a line by line review of the transcripts as a means of conceptualising and labelling responses. This initial minute analysis of data aimed to generate conceptual density as the coding process developed (Strauss, 1987). The second stage included a further sweep of the transcripts to double-check the adequacy of the codes already assigned and to highlight quotes that didn't adequately align themselves with any of the concepts from the literature. This facilitated stage three which involved the invention of new codes to be assigned to the uncoded segments. Throughout the open coding process, theoretical memos were recorded as a guide to the researcher's line of thought as emergent themes appeared.

The next step involved the enhancement of theoretical sensitivity through comparison with the relevant literature. The resulting categories and relationships were then discussed with a group of experienced researchers, familiar with grounded theory research, and then related back to the original data. The aim of this process was to identify the core theme, and to identify the relationships between the emergent concepts and categories. The process was one of iteration, requiring a number of cycles through data collection and analysis to refine the emerging concepts and theory. The concepts that were identified were then presented to the participants for validation. The participants' comments, along with the opinions of the other researchers consulted, were incorporated into the developing theory.

At the completion of stage three of open coding, the researcher performed an axial-coding process whereby codes were checked against each

other to detect emergent themes. This stage also allowed for the collapsing of certain codes, as well as the separating and renaming of coded segments covering too broad an area. The grouping of related coded concepts into a number of broader categories facilitated easier handling of the data and progress toward an emergence of theory. Finally, selective coding allowed for the removal of categories that weren't seen as central to the topic. Since the study was delimited to the major factors perceived by the subjects, it was not important to retain these minor categories. To be certain that only the categories most relevant to the study remained, the selective coding process comprised a systematic and concerted examination of the interrelationships between each of the categories and their properties in relation to the core category.

Integrative diagrams were utilised as the coding process developed, forming a cognitive map of the researcher's thoughts and facilitating further analysis.

A computer programme, the ETHNOGRAPH (Seidel, 1985), was used to help organise the data throughout the coding process. This was extremely useful for the organisation of coded data into categorised groups and in the identification of quotes to be used to highlight points throughout presentation of results. The programme had one limitation, however, in that it only allowed for a unidimensional application of codes. A programme such as NUDIST (Richards, 1987) that allows for a hierarchical system of coding, would have been more convenient and time-saving. To overcome this shortcoming, the researcher created strings of abbreviated codes so that different codes could be identified as belonging to specific categories. For example, the code "philos" (teacher philosophy) became "tv-philos" (teacher constituents - philosophy).

Problems with the Method

The research encountered a number of methodic problems. The acknowledgement and subsequent treatment of these problems were vital for the establishment of trustworthiness (Lincoln & Guba, 1985). This section examines the treatment of three groups of problems: Boundary problems; focussing problems; and authenticity problems.

Boundary problems.

Boundary limitations are a significant aspect of naturalistic studies. The perceptions of the curriculum implementers (teachers) constituted the main parameter determining the limits for data gathering. This is a significant limitation since the study was unable to gather any corroborating information regarding actual implementation of plans. Furthermore, the study originally intended to also examine the perceptions of non-teaching personnel associated with outdoor education, such as policy makers, school Principals, Ministry of Education curriculum planners and others with a direct stake in outdoor education in schools. A boundary needed to be established such that this objective was omitted. This was necessary otherwise the study would have been too broad given the time constraints. This would have resulted in less descriptive detail overall and, consequently, a lack of theoretical density.

Focussing problems.

Due to the study's inductive nature, data analysis, categorisation and interpretation needed to account for expected, unanticipated and irrelevant (to the research questions) responses. The sorting of categories and concepts into findings considered important and trivial comprised an important process for the ensurance that the study remained focussed and relevant to the research questions. In interviewing teachers, a number of important agendas were uncovered. These included issues such as:

Safety in outdoor education and the need for key competencies for teachers through certification or experience;

problems faced by female students in outdoor education, and male dominance in terms of teachers of the subject; and

the lack of an undergraduate course designed specifically for outdoor education.

These issues were all important aspects of the study and were consequently incorporated in the findings. However, each of them are significant issues in themselves, and the researcher constantly needed to refer to the research questions to ensure that these issues did not take prominence over the actual aims of the study.

Authenticity problems.

Background to authenticity.

The concepts of reliability and validity as constructed by rationalistic, positivistic science are incongruent with the philosophical assumptions underpinning the naturalistic paradigm. Gough (1991) argues that the metalanguage of positivist science is nothing more than just another language. He cites Cherryholmes (1988): "metanarratives are as incomplete, time-bound, interest-relative, ideologically informed, and shaped by power as any other narratives" (p.2). Therefore it is inappropriate to refer to such terms when conducting a naturalistic study. However this does not mean that naturalistic researchers are relieved of the need to establish the authenticity of their findings. The concepts of reliability, validity and objectivity are merely different, and hence should be represented by alternative terms.

Guba (1977) suggested the following concepts for consideration when attempting to establish authenticity in naturalistic research: intrinsic and extrinsic adequacy, replicability and impartiality (p.62). This section

will explain each of these ideas and outline the considerations made in the proposed research to meet these requirements.

Identification and treatment of threats to authenticity.

According to Guba (1977) intrinsic adequacy refers to the degree of "isomorphism that exists between the study data and the phenomena to which they relate" (p.62). This includes establishing credibility of findings and structural corroboration (Guba, 1977). Goetz & LeCompte (1984) identified a number of techniques to aid credibility in naturalistic inquiry, including comprehensive recording of research methodology, bracketing of researcher beliefs and assumptions, the use of methodological, observational and theoretical memos, the keeping of an interview journal and peer review.

According to Lincoln & Guba (1985), prolonged engagement at the site and persistent observation are important to "detect and take account of distortions that might otherwise creep into the data" (p.302). These distortions include misinformation introduced by either the researcher or the respondent and are brought about through problems such as lack of trust, nervousness and differences of language. Due to the temporal limitations of honours studies, the researcher was unable to spend prolonged periods of time at the site. This limitation to credibility was addressed by establishing prior contact, on at least three occasions, with each respondent where rapport was developed. The in-depth nature of the interviews, combined with the interview guides, which served as a hand-rail to ensure the topics for discussion were addressed, aimed to maximise the richness of data. Furthermore, the researcher assessed and analysed each response during the interview, cross-examining or asking contrast questions where answers seemed unclear or the respondent uncertain about a question's import or intent. Immediately following the interview, a contact

summary sheet (see Appendix A) was completed by the researcher. This ensured that important contextual factors associated with the interview were noted, and accounted for, in any interpretation of the transcript.

Credibility was also increased by peer coding of transcript samples, repeated reference to the literature after categories and relationships emerged and obtaining informant verification of the interpretations from interview analyses. Since data for the study were obtained from the selected informants using only one in-depth interview, history and maturation effects posed little threat to intrinsic adequacy.

Extrinsic adequacy concerns the concept of generalisability (Guba, 1977). In the naturalistic paradigm, findings are said to be specific to the context of the study. It is a philosophical paradox that these sorts of findings may be transferable to other situations. Many would argue that results that are context-bound and have no external value are trivial. Guba (1977) suggested a compromise stating "often naturalistic inquiry can establish at least the 'limiting cases' relevant to a given situation . . . each possible generalisation should be regarded only as a working hypothesis, to be tested again in subsequent encounters" (p.70). The findings of a case-specific study are assumed by the researcher to be important, justified and grounded. The establishment of meaning and relevance for other settings is deemed the burden of the reader and not the researcher. However, it is aided through rich description and adequate conceptual density. Hence the steps of maximising intrinsic adequacy are sufficient in addressing the extrinsic adequacy of the research.

Consistency is offered by Lincoln & Guba (1985) as an important factor in the authenticity of a study. This refers to the key aspects from the traditional idea of reliability - stability, consistency and predictability - and is usually displayed through replication. However replicability is

problematic to the naturalistic researcher. It has already been explained how the implications of a multiple reality do not sit well with the concept of generalisability. A similar argument applies to replicability. A possible solution is offered by Guba (1977) where he states, "since it is impossible to have intrinsic adequacy without reliability, a demonstration of intrinsic adequacy amounts to a simultaneous demonstration of reliability" (p.71). Therefore, the steps taken by the researcher to establish intrinsic adequacy may also be offered as steps to maximise replicability. Furthermore description of the researcher, the contexts, the philosophical assumptions of the study, the methodology and the audit trail take into account both factors of instability and factors of phenomenal or design induced change.

Since all naturalistic studies are said to be characterised by the bias of the researcher, the degree of neutrality can be an important factor in determining the authenticity of the findings. Threats to neutrality include unconscious bias, conscious prejudice, incompetence, gullibility and corruptibility (Guba, 1977). The asking of contrast questions, and checking of interpretations act to minimise these potential problems.

Ethical Considerations

The need to carefully consider ethical issues in qualitative research was highlighted by Spradley (1979) who stated that: "no matter how unobtrusive, ethnographic research always pries into the lives of the informants . . . Interviewing presents a powerful tool for invading other people's ways of life. It reveals information that can be used to affirm their rights, interests and sensitivities or to violate them" (p.36). This section explains the steps taken to protect the study's informants.

The aims of the investigation were communicated to all informants and they were made aware of the value of the research in terms of the programming considerations for outdoor education. Neither the persons

interviewed or the schools used are identified by name. All interviews were confidential and conducted in a place where privacy was guaranteed.

The data gathered will not be used for any purpose other than that outlined for the study, and feedback on the findings were provided to all participants.

Summary

Having performed a methodology, the thesis may now turn to a report of findings. Chapter four reports the categories that were identified during data analysis. These are presented without interpretation or integration, a process that has been left until chapter six. This structure was necessary to allow for a description of the process of integrating the categories. This appears in chapter five to enhance the study's credibility.

CHAPTER FOUR

IDENTIFYING THE FACTORS

Introduction

This section examines emergent themes from the data analysis. The research questions and their relationship to the study's design act as a guide for the presentation of these findings.

Answering Research Question 1

Research Question 1 asks "to what extent are there similarities or differences between the outdoor education formal curricula at selected schools, and those of the Ministry of Education?"

This section shows the results of documentary analyses of both the Ministry of Education's and the respective schools' formal curricula for outdoor education. It examines each of the schools, comparing their proposed specific objectives with those of the Ministry of Education.

Table 1

Percentages of school specific objectives that correspond to Ministry of Education specific objectives for each outdoor education unit in Years 9-10 at selected schools

	Unit 6232		Unit 6242		Unit 6252		Unit 6262	
School	A	B	A	B	A	B	A	B
Percentage	77%	38%	57%	29%	86%	71%	40%	60%

Table 2

Percentage of Ministry of Education specific objectives taught by selected schools in all units in Years 9-10

	Combined Units	
School	A	B
Percentage	94%	97%

The percentages shown in Table 1 indicate that both schools studied do not use all of the specific objectives detailed in the Ministry of Education formal curriculum. In some of the units, the selection was quite high, for example Units 6232 and 6252 at school A and Unit 6252 at school B. However, some cases saw a low selection, especially in school B. Despite these figures, an examination of Table 2 shows that both schools covered a high percentage of the specific objectives from the Ministry of Education formal curriculum, indicating that the objectives are redistributed between the units.

During the document analysis, it became apparent that schools not only regrouped the Ministry of Education formal curriculum specific objectives but included objectives from other sources.

Table 3 shows that, on most occasions, the specific objectives from the Ministry of Education constituted only a fraction of those listed for each unit (see especially Unit 6262 in school A and Units 6232 and 6242 in school B). Considering some objectives are moved between units, it was necessary to examine the combined figures.

Table 3

Percentages of school specific objectives constituted by Ministry of Education specific objectives for outdoor education units in Years 9-10 at selected schools

	Unit 6232		Unit 6242		Unit 6252		Unit 6262	
School	A	B	A	B	A	B	A	B
Percentage	73%	22%	40%	17%	53%	50%	22%	38%

The results, shown in Table 4, indicate that around three quarters of the specific objectives in each school's formal curriculum correspond to those of the Ministry of Education. From these figures, it is apparent that schools add in a significant number of specific objectives that aren't listed in the Ministry of Education formal curriculum. While the origins of the additional objectives were not examined, the research does attempt to reveal the motivations for their inclusion.

Table 4

Percentage of school specific objectives corresponding to Ministry of Education specific objectives for outdoor education in combined units in Years 9-10

	Combined Units	
School	A	B
Percentage	69%	75%

Answering Research Question 2

Research Question 2 asks "what are the major factors identified by teachers which influence their selection of particular objectives when developing or changing their outdoor education formal curricula?"

The analysis of interview data revealed five categories: time; cost; resources; expertise and needs, that influenced particular selection of objectives. The following section discusses these, along with significant incidental and disparate findings. Table 5 summarises the coding and provides information regarding the frequency of reference to factors within interviews. This, when combined with an analysis of accentuation within speech, aids the identification of major factors and, in particular, discriminates between important and incidental factors. The text units for

analysis were of variable length and, for that reason, the percentages shown in Table 5 are somewhat of an arbitrary measure. However the inclusion of such information, when combined with illustrative quotes, can support and strengthen the discussion of findings, justifying their inclusion.

Table 5

Frequency of Reference to Coded Factors From Teacher Interviews

CATEGORY	No. times appeared	PERCENTAGE	CONCEPT	No. times appeared	PERCENTAGE
time	19	27.5%	timetabling	8	11.6%
			class	4	5.9%
			planning	3	4.3%
			expeditions	3	4.3%
			travel	1	1.4%
expertise	16	23.2%	orientation	6	8.7%
			in-service	6	8.7%
			skills	2	2.9%
			cooperation	2	2.9%
needs	16	23.2%	learner	9	13.0%
			teacher	3	4.3%
			gender	4	5.8%
resources	12	12.0%	community	8	11.6%
			school	1	1.4%
			transport	1	1.4%
			equipment	2	3.1%
cost	6	8.7%	expeditions	1	1.4%
			equipment	2	3.0%
			transport	1	1.4%
			general	2	2.9%

Category 1: Time

The teachers agreed "time is the biggest factor (impacting on the selection of outdoor education content) in the school" (teacher A).

Approximately twenty-seven per cent of coded references to factors in the interviews related to time. The following summary of this category includes administration timetabling, expedition time, class time, and organisation time.

Administration timetabling.

This appeared as a major factor in each of the interviews, being referred to in approximately twelve per cent of all coded statements. It was best illustrated by teacher A who asserted "the timetable has to fit the programme otherwise it won't work". Timetabling became a problem when there was a conflict amongst time allocation, class time and expedition time. This section discusses these conflicts.

Expedition time.

Teachers perceive the conduct of expeditions to be an important part of any outdoor education programme, as indicated by approximately sixteen per cent of coded statements referring to time. Teacher C highlights the problem created by the extended time required for expeditions, "they (the administration) are saying go for it within class time but they won't give us any more expedition time". Teachers saw this as an important problem since the situation arises where outdoor educators "could take more classes but . . . students wouldn't get an expedition at the end of it" (teacher B). The consensus of feeling was that the offering of classes without a culminating expedition "doesn't seem worthwhile or relevant to outdoor education. . . . An hour here and an hour there is not really effective . . . not as effective as a three day expedition for example" (teacher B).

Class time.

The provision of outdoor education classes is mainly governed by student subject selection within these schools. This is illustrated by teacher C who stated "(if) the administration finds that, where there were thirty or forty putting their name down now there is two hundred, they have to provide more classes". This implies the administrations at these schools are generally supportive of outdoor education.

The real problem appears to lie with the rigidity of the timetable and the resultant time restrictions for normal lessons. Thirty per cent of time-related coded statements referred to this. Teacher C complained that "the kids are locked into the school timetable and can only get out for an hour within school time". This creates problems when attempting certain activities. Teacher C commented that he "would like to have them do their St. John Ambulance First Aid Certificate . . . (but) the instructors won't come in unless they have two hour blocks". This problem was also referred to in relation to arranging for scuba diving instruction.

Organisation and planning time.

Time for organisation and planning emerged as a perceived prohibitive factor in the implementation of outdoor education formal curricula. More than twenty per cent of time-related coded comments addressed this issue. Teacher C highlighted the point: "It takes a bit of organising . . . I have to organise that six months ahead . . . I find that if you don't get the time, there is no use organising it in the end". Teacher A asserted "we are still about two years away from really getting our written materials and objectives and our activities and so forth really well constructed".

Expertise

Teacher B suggested "expertise is a problem. It does limit what you teach". The following examines factors from this category that appear with a frequency of twenty-seven per cent of all coded comments made: In-servicing; skills; and ideology.

In-servicing.

Interviews with teachers indicated continual participation in external courses and workshops to acquire expertise in all facets of outdoor education. Teacher A suggested "Personally I'm not an advocator for . . . certification because I think you can get bogged down in paperwork and in

doing courses (but) . . . there has to be some sort of standards met, so . . . rather than certification, in-servicing may be the best way to go". Teacher C highlights the problem with in-servicing: "It is a pity that it has to be done in our own time . . . fortunately we get school professional development money to do the course, but usually those courses are in holiday time or on weekends".

Skills.

Teacher A answered the self-posed question: "So how do you get started (in outdoor education)?" with: "I think you attempt stuff that you think you can handle safely and keep at one level and then gradually acquire knowledge and some sort of certification and then step it up as you go". He made the important point that while teachers are acquiring that base knowledge they should be with someone who can give them some guidance and, if that is not possible, then they should at least be monitored by the principal to ensure they are operating within an area of competence so that they are not overstepping what they are capable of". The problem of skills was highlighted in eleven per cent of coded comments regarding expertise.

Another skill-related problem for schools lies with the attrition rate of their teachers. The skill development of outdoor education teachers entails the investment of much time and money, leading to the problem highlighted by Teacher C: "As soon as one of us takes off, there is going to be a big hole left for the skills required to implement our programme". Teacher D agreed: "The programme changes by a change in staff. Different skills and ideas are brought to the programme". Teacher A suggested a university "has to structure a whole outdoor education package at an undergraduate level because there is enough outdoor education taught in schools now to support full time outdoor education teachers".

However, the solution is more than merely skilling people in techniques, or hard skills. Teacher A suggested the development of pedagogic skills are also important: "Anyone can get a rope and anyone can abseil but it's what you do with it that counts. For instance, many teachers, especially new graduates, see the physical side of the activity as being important, but they have missed all the other things that you can do with the same activity above and beyond just descending a rope".

Ideology of outcomes.

Teacher A described the school programme as "dynamic", suggesting that different teachers can be implementing different programmes from the same formal curriculum. This usually occurs due to the particular teacher's underlying beliefs regarding appropriate aims and activities. These beliefs have been coded as teacher-ideology.

Recent decades have seen significant developments in the philosophy driving outdoor education. According to teacher A, "most teachers have moved from mere recreation . . . to an outdoor pursuits mode". However, he suggests that the transition is not yet complete: "There has to be another step taken where teachers move to an environmental mode, and that has to be the next challenge for our future teachers". To illustrate this perception he provided the example, "He (Teacher D) spends a lot of time in straight propulsion and manoeuvrability of the canoe, where I am more interested in, okay once we get canoeing can we appreciate a river system's environment and what birds do we see, what trees do we see, how does the river move, and spend time on that side of it" (Teacher A). However, he suggests differences between teachers are acceptable: "I just think they [outdoor education students] get a quality programme in two different areas". Issues regarding ideology of outcomes arose in thirty-two per cent of coded comments made regarding teacher expertise.

Needs

This section outlines how outdoor education addresses the needs of both the learner and the teacher. These emerged as important perceived implementation factors for school formal curricula, being referred to in twenty-three per cent of all coded statements.

Learner needs.

Teacher C stated "I think outdoor education . . . is not for all kids. There are a lot of students who don't like being without their evening shower or home comforts. Sometimes a bush walk in the rain and then setting up in the rain can be quite physically and mentally testing. The food and your clothes might be wet and so on. Some students thrive on this, some don't, so that is a factor". Teacher A suggested similarly, "a huge body of students (are) not interested in traditional sport . . . but they are willing to be involved in other ways". He goes on to state "outdoor education develops cooperation and teamwork, is non-competitive, and has a much stronger social base (than physical education)". Teacher C suggested "There is something inherently good about taking kids into the outdoors that the environment gives them". Teacher B agreed: "Outdoor education is one of the few subjects where we don't actually teach kids, we let them learn. They are free to make mistakes in a non-threatening environment and there is no great problem. They learn through experience and next time they won't make the same mistake."

It is evident from comments that the motivation and learning opportunities offered by the subject generate great drive and enthusiasm amongst many of its students and this, according to teachers, is partly responsible for the successful implementation of outdoor education formal curricula. Thirteen per cent of all coded statements referred to the needs of the learner as a factor affecting implementation.

Teacher needs.

None of the teachers in the study began their careers as outdoor education teachers. The fact the subject attracted them and satisfies their individual needs is significant for the successful implementation of their formal curricula. Almost twenty per cent of coded comments about needs referred to those of the teacher. Teacher C stated outdoor education is "far more interesting (than physical education) and the activities are far more enjoyable for me. I enjoy the lack of competition and emphasis on individual effort and team work without necessarily having an opposition." Teacher B highlighted the importance of this: "All I wanted to do was outdoor education . . . and each year I put in extra and encouraged the kids to enjoy it and gave them opportunities to enjoy it and so at the end of the year when they got their selection sheets for the following year, they selected outdoor education". This phenomenon of teacher interest and enthusiasm appears to be self-perpetuating and generative with respect to implementation of formal curricula.

Gender needs.

Twenty-five per cent of coded statements about needs entailed teachers commenting on the differences between boys and girls and the corresponding demand to modify programmes to accommodate both sexes. For example, "You have to adapt the programme to them (girls), they have got less upper body strength and so some activities the boys are naturally better at" (Teacher C). However this is not a significant disadvantage to girls since they more than compensate for these with abilities in other areas. According to Teacher C "They are far more appreciative of the natural environment and the attractions and beauty of it, where the boys are more into the achievement side of it like scaling the highest cliff". Teacher A addresses gender differences by modifying assessment criteria: "We are working on a competency based assessment so if people are working with safe practices and getting involved and showing some sort of

appreciation and cooperation they are going to score reasonably good marks. Girls tend to excel in these areas, so that makes them successful". Teacher B complained about the attitude of some boys "A girl might ask a . . . question which to them is quite sensible and a guy will turn around and laugh at her". He explained his solution to this problem: "We make rules about not putting down others in the group because that is the only way they are going to learn. Half the time, if you throw the question over to the guy, they can't answer it anyway".

Another problem lies with the policy of the Ministry of Education. As Teacher B explained "It creates a problem with expeditions because of the Education Department saying you must take a female teacher along. We had a problem last year with Seatrek where they were going to make us take a female teacher and I said well that is stupid. We train these kids for three terms to sail and navigate and all that sort of stuff and now you expect us to take a totally incompetent person along on the camp who will become a liability to the group. So that is a problem, having to take along a token female (or male) for the sake of sexual discrimination".

Teacher A saw a further gender related problem: "We are doing a fairly good job in addressing that (the gender problem), although we don't have many role models". In an attempt to counter this "We use the upper school girls in our programme as role models wherever possible, for instance conducting outdoor education expos and displays where girls are up front as role models" (Teacher A).

Resources

Teachers addressed approximately eighteen per cent of all coded statements to the benefits of access to sufficient readily available resources. Teacher B suggested "What we teach is directly related to what is available". The categories below summarise these as facilities, equipment and technical help.

Facilities.

Facilities are physical buildings and structures within and surrounding the school. Teachers constantly refer to the availability of community facilities as being vital for the successful implementation of their curricula. Sixty-seven per cent of coded statements relating to resources referred to this area. Teacher A suggested "you have got to have resources. We are lucky because we can use the expedition boatshed, the river and the ocean". Teacher B agreed by suggesting "each school has to teach in the area in regards to what facilities they have got access to". He then clarified his point: "we do windsurfing and it is a hassle. We travel all the way to Crawley Bay to do it".

Often technical help from external agencies compensates deficiencies in teacher skills or knowledge. Teacher C pointed out "we have got a lot of government departments we can use. The Marine and Harbours, Fisheries, Water Police, and Fremantle Port Authority are really helpful and can give a lot of . . . valuable information". All teachers expressed appreciation for the expertise and guidance offered by the Expedition Boatshed.

Access to appropriate areas for expeditions emerged as a particular problem: "What is becoming more of a limitation is the amount of places to take students. Where we could go . . . and do a bush walk in relative wilderness, now it is quite developed in terms of camp sites and so on. Instead of having just a little camp fire on the ground, now it is in those cement circles and so on. It is changing the sense of wilderness . . . when there is a concrete surround and a picnic table nearby" (Teacher C).

Teachers also mentioned the importance of school facilities: "the facilities in the school - in the actual construction of the school - means we are able to do it (abseiling)" (Teacher B).

Equipment.

The availability of equipment is vital for the successful implementation of outdoor education. Seventeen per cent of references coded under resources mentioned this factor. Teacher A stated "We work mainly with the gear that we have . . . we try not to run around and have to hire stuff and bring stuff in because its too expensive and messy (to organise)". Each teacher ratified this by verbally providing an equipment list.

Cost

Outdoor education programmes tend to be very cost-intensive. Although only a small number of coded statements related to cost (nine per cent), much emphasis was displayed through the language used by teachers when making such references. Teacher B mentioned "our outdoor education budget . . . went close to fifteen thousand dollars last year, and that is enormous compared to other subjects". Fortunately, outdoor education can "charge more fees than other subjects such as physical education for example, because it is an elective area" (Teacher A). The following section examines equipment, expeditions and transport as the major cost factors.

Equipment.

Equipment appears to be one of the two major costs incurred in outdoor education. Thirty per cent of coded statements regarding cost addressed the concern of equipment expenses. According to Teacher C "We have got a huge equipment list, we have got about four to five thousand dollars worth of roping gear alone". The schools in the study addressed this problem by placing a levy on the price charged for expeditions. Teacher B suggested "The kids see where their money is going and so they don't mind the money being spent".

Expeditions

Minimising expedition costs is important for the successful implementation of outdoor education programmes. Sixteen per cent of statements coded under the cost category referred to expeditions. Teacher B explained “if parents ring up and say the kids cannot go because they can’t afford it, we have to work something out so they can go along”. But the programme is partly dependent on excess expedition funds for its survival, so “we have to limit the expense to students so they will be attracted to the course” (Teacher D). Teacher C explains how a policy change by the Ministry of Education has complicated this issue: “In upper school it is a bit more expensive because it is extended expeditions and they can run up to eighty to a hundred dollars. It is a problem that has only recently come upon us because the Ministry has ceased paying relief money...so of course the kids have got to pay for it”.

Transport.

Transport is another set of coded statements not appearing regularly in the interviews, but characterised by emphatic language. Outdoor education often requires the teacher and students to leave the school. Both schools studied were fortunate in this aspect as each had transport available. Teacher A stated “we are able to reach fairly remote areas fairly cheaply for the kids. We have actually got a free bus system operating in the school at the moment which really helps”. Teacher D stated “I can’t believe how much it costs to take a bus somewhere. We have overcome that a little bit this year by restricting the activities to nearby areas. Last year we had a situation where we were taking seven kids for orienteering and it was costing around seventy dollars each time in travelling costs”. Teacher C used a similar solution: “We don’t travel very far for classes, only ten minutes here or there, but for expeditions we have got a three hour drive down south or possibly up north and that is where

the cost comes in". Schools possessing their own buses are at significant advantage to implement an outdoor education programme.

Incidental finding

By delimitation, the study only concerns major factors perceived by teachers to be affecting the implementation of outdoor education. A combination of the frequency of appearance, and the emphasis or value placed on them by the teachers comprised the criteria for selection as a major factor. This process resulted in the rejection of potentially significant statements that may need testing through further theoretical sampling. Unfortunately the time limitations of this particular study prevented such action, meaning these findings must be presented as incidental and left to further research. One incidental finding was indicated when Teacher D expressed concern over the size of classes, "economic times are hard and the Ministry has increased class sizes over the years. I have a year ten class where I have to try to manage six canoes for twenty four students, which is ridiculous. The kids don't get a fair go and besides that it's unsafe; So that is a problem".

Disparate finding

This section describes a disparate finding that emerged from the study. Such findings have a significant effect on the analysis and interpretation of data. The key disparate finding concerning this study relates to the preparation of formal curricula by teachers.

Planning.

Neither of the schools in the study had detailed formal curricula. Instead, these took the form of rough outlines of blocks of work (see Appendix D) that appeared to be largely dependent on factors operating at the time of implementation. Detailed lesson plans covering specific objectives and activities were not prepared. Teachers relied heavily on their past experience when calling on activities for the lesson.

This finding is significant to the study, since it was assumed that teachers would prepare a written lesson by lesson plan of their activities. The document analysis was thus limited to a comparison of specific unit objectives, reducing the ability to achieve density of description.

Summary

This chapter presented the “skeleton” of the study’s findings in the form of a listing and definition of the emergent categories. However, with the holistic reality acknowledging by a naturalistic paradigm, it is the further conceptualisation and integration of such categories that gives birth to the “body” of the results. Chapter five describes the process by which the categories were conceptualised and integrated to produce a theory. The resultant theory for influences on content selection by outdoor education teachers is presented and discussed in chapter six.

CHAPTER FIVE

TOWARDS A THEORY OF INFLUENCES ON CONTENT SELECTION BY OUTDOOR EDUCATION TEACHERS

Introduction

This chapter shows how the construct 'expertise', introduced in chapter four, evolved as the core category for factors affecting curriculum planning behaviour in outdoor education, and how the theory surrounding it evolved. Since the main integrative tool was diagrammatic cognitive mapping, this section combines a number of such figures with a commentary of the analytic developments leading to reconceptualizations and, eventually, to a theory of influences on content selection by outdoor education teachers. It should be remembered that this section is not intended as a proof of the theory for teacher planning behaviour in outdoor education, but as an attempt to show theoretical sensitivity to the data.

According to Glaser (1978), a theory's credibility derives from its integration, relevance and workability. The assumption is that naturalistic theories, as grounded, are not proven; only suggested. A theory is thus an integrated set of hypotheses rather than findings, and should not be cluttered with attempted proofs. The reader should assume that the theory is grounded in the data, and that such grounding cannot be demonstrated in the writing. However it is possible to demonstrate the credibility of the theory by outlining developments in thinking throughout the data analysis.

Developing the Theory

Initial open coding produced approximately thirty different codes. These were arranged to loosely resemble the conceptual framework for the study, as shown in Figure 5. According to Strauss & Corbin (1990) "with

early open coding . . . few relationships are yet established" (p.211).

Therefore diagrams are likely to be represented by a list of categories.

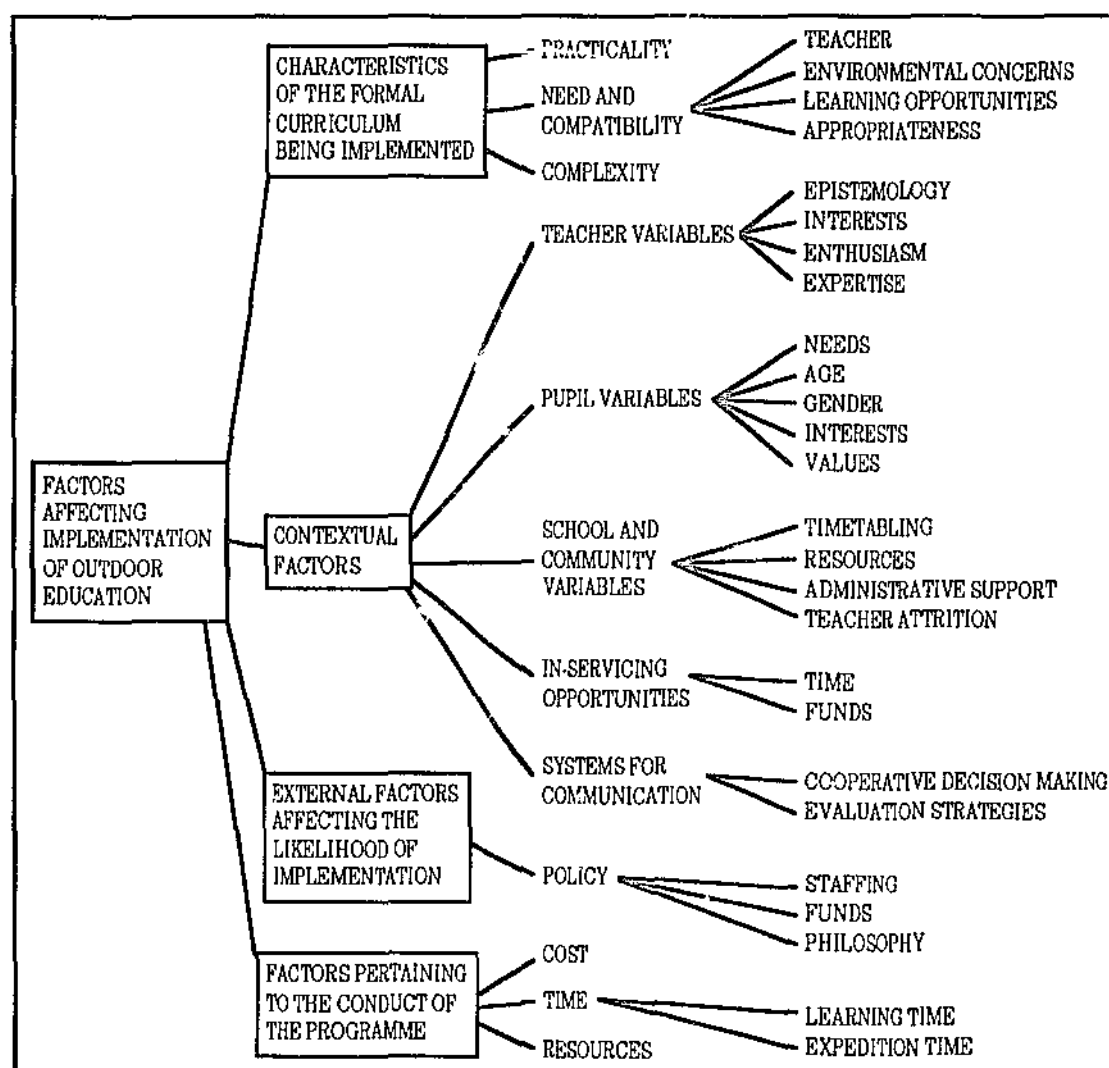


Figure 5. Integrative diagram from stage one of data analysis.

Upon reflection, it was decided that a reliance on the original conceptual framework was counter-productive to the study since it restricted thinking to a descriptive rather than conceptual level. In memo six, I wrote "the higher order categories of the preconceived conceptual framework are not conducive to the development of a theory for the effects of factors on the implementation of outdoor education formal curricula. Rather, they serve to describe the factors in relation to their respective contexts."

A reconceptualisation of the codes produced the cognitive map shown in Figure 6. An important feature of this diagram is the identification of the “desired curriculum” which implies teachers have a significant amount of personal control over the programme.

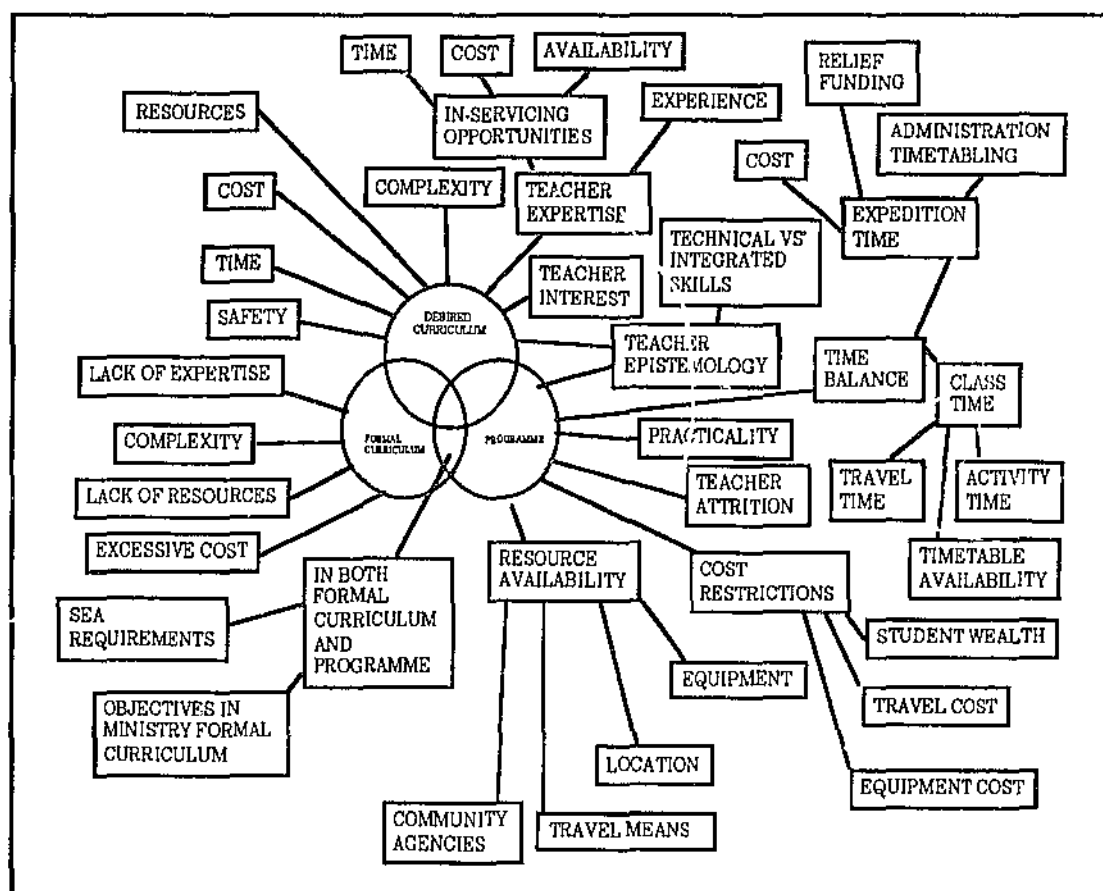


Figure 6. Integrative diagram from stage two of data analysis.

Further coding produced a number of modifications to the framework shown in Figure 6. Firstly, a re-examination of the research design caused the school programme component to be removed. In memo thirteen, I wrote: “Since the study does not verify evidence of impact on programmes through actual observation of lessons it can only, at best, produce a theory that can predict the impact of factors on outdoor education programmes. Therefore, ‘programme’ must be removed from the diagram (shown in Figure 6) to ensure the study was not claiming to have done more than it has”. This further restructuring produced the diagram shown in

Figure 7 which features a simplification of the categories and an initial attempt to establish a logical order. Most important is the emergence of the five major categories. These were arrived at after the first attempt at axial coding, where a number of the initial codes were collapsed.

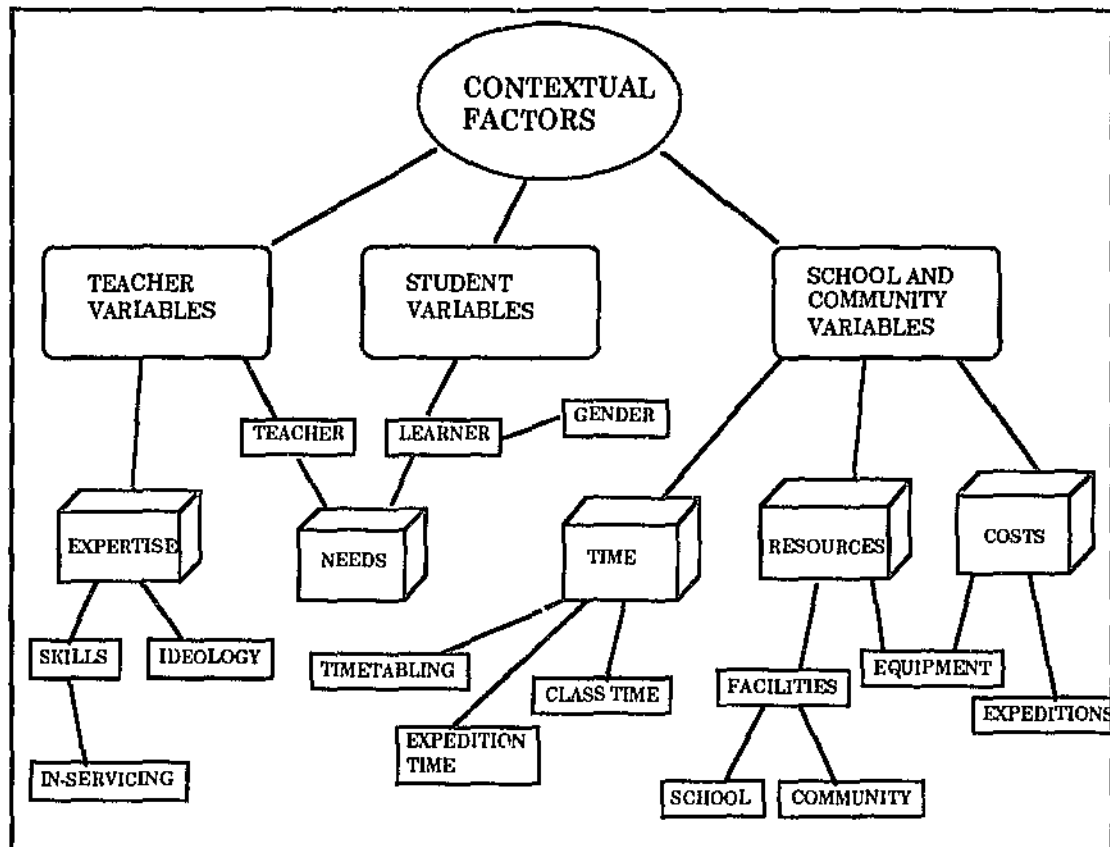


Figure 7. Integrative diagram from stage three of data analysis.

As axial coding progressed, it became obvious that the diagram in Figure 7 had regressed to a descriptive mode. Although relationships had been identified or suggested, the conceptual diagram was not pointing to a theory which contained sufficient explanatory power or potential utility. It was decided that the focus on effect on school programmes be reincorporated, but in the modified form of a prediction of likely teacher planning behaviour. This also accounted for the idea of a desired curriculum, which had been overlooked in developing Figure 7. Furthermore, memo sixteen shows the decision to explicitly highlight that the study examines the factors from teachers' perspectives: "Since the study

examines the factors through one specific context - teachers' perceptions - the integrative diagram must represent the arrangement and subsequent handling of the factors by the teachers themselves. This then clearly shows the potential implications of the theory for understanding and predicting curriculum planning behaviour".

After a reexamination of the literature, it was decided that the description of factors as "contextual" be separated in line with the Mitzel model (in Duncan & Biddle, 1974). This resulted in the replacement of "teacher variables" with "presage factors". It was important to make this distinction between presage factors and other contextual factors since they both operated on teacher behaviour to produce effects on planning, but were considered logically and conceptually different. A further important feature is the ordering of skills as a function of expertise.

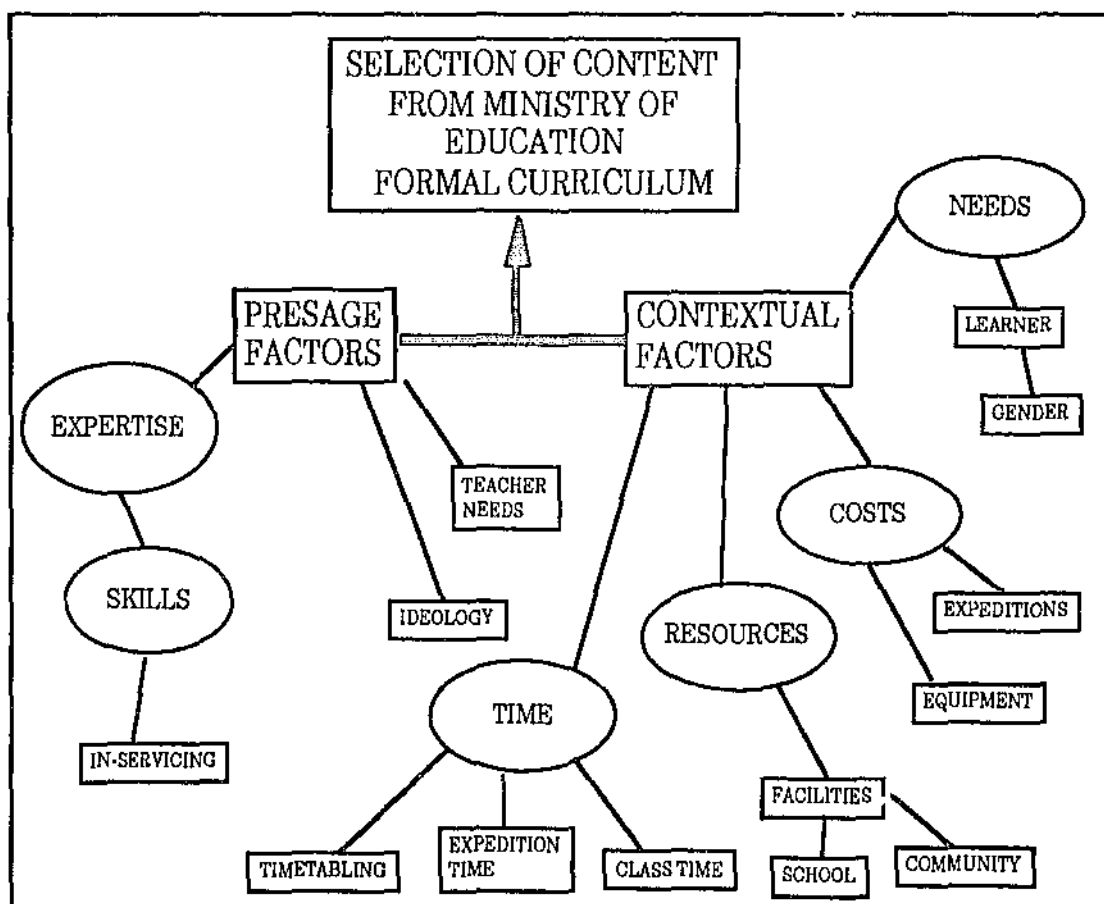


Figure 8. Integrative diagram from stage four of data analysis.

After a detailed examination of the term expertise and how it was used by the teachers, it was decided that it should account for more than teachers' performance and pedagogic skills, as implied in Figure 8. Hence expertise was expanded as a concept to include all of the presage factors (see Figure 9). This required a redefinition of expertise such that it could account for teacher ideology and past experiences, as well as skills.

Memo twenty one identified an incongruity within the diagram shown in Figure 8: "Since teacher planning appears to be a dynamic activity, the integrative diagram needs to show how teachers act to modify the curriculum both when writing programmes and immediately prior to implementation". This led to the eventual theory which reflected a social cognitive approach to planning, allowing for a combination of human agency and contextual factors, and acknowledged that curriculum planning takes place both prior to teaching and during teaching. Furthermore, the question as to how the contextual factors combined to produce an effect on programmes resulted in the identification of expertise as the core category. It appeared that teachers used their professional experience and knowledge to both anticipate the effects of future contextual factors and instantaneously react to the emergence of contextual factors when they arise. It is through this use of expertise that teachers both formatively and summatively modify the formal curriculum to account for contextual factors. This model, shown in Figure 9 (p. 70), allows for the prediction of teacher content selection and provides specific insight into the processes of teacher curriculum management in outdoor education in the selected schools.

Summary

Chapters 4 and 5 were intended to authenticate the category construction and theory integration performed as a consequence of data analysis. This was attempted through the detailed description of these processes. Having completed this task, the report of findings may now turn to a presentation and discussion of the theory for influences on content selection by outdoor education teachers. Chapter 6 is dedicated to this.

CHAPTER SIX

THE THEORY AND ITS IMPLICATIONS

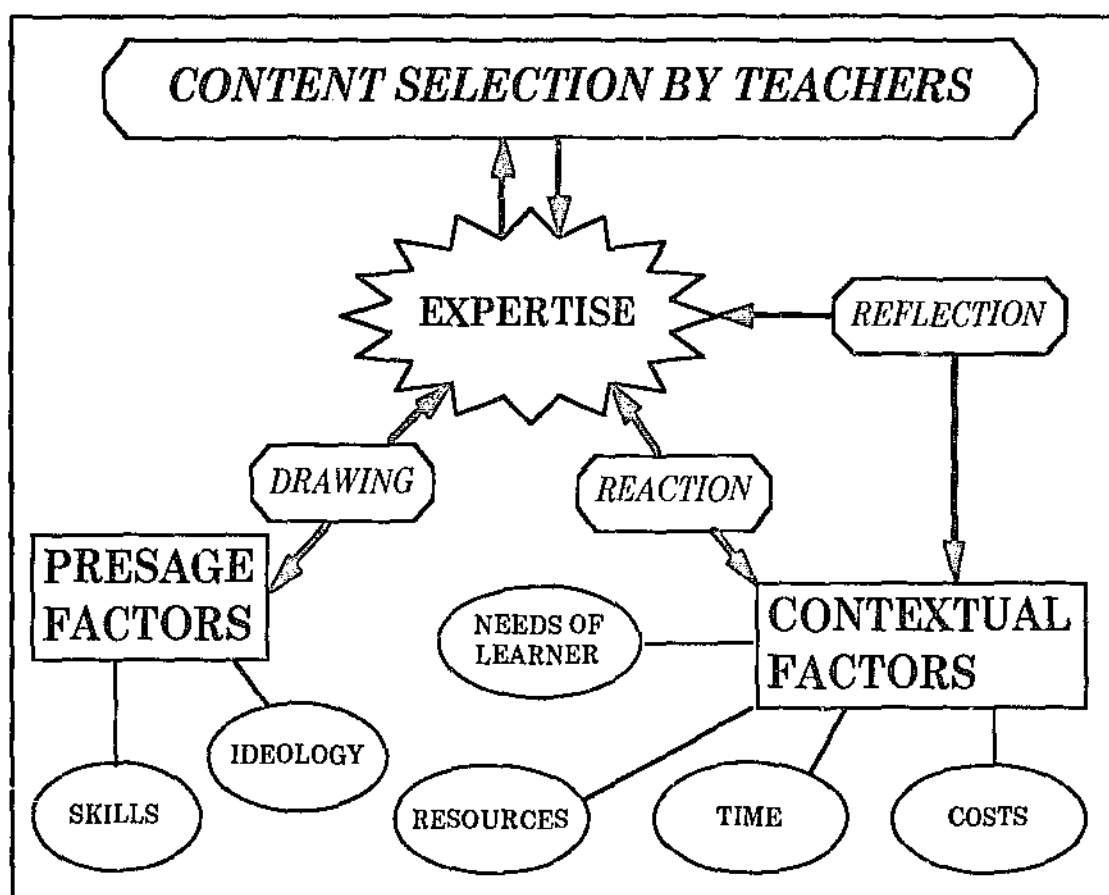
Introduction

The study has shown that teachers choose content (specific objectives) for their formal curricula from a range of alternatives. The Ministry of Education formal curriculum is designed to be a key source of content for outdoor education teachers. However, document analyses have shown that a significant amount of content is selected from sources external to this centralised document. An examination of the influences on such selections has given rise to a theory for content selection by teachers in outdoor education (diagrammatically represented by Figure 9). This theory was drawn, by the author, from the integration of the categories defined in chapter 4 and conceived through the analytic process described by the report on the audit trail in chapter 5. This chapter presents and explains the theory. Subsequently, the theory's implications for researchers, teachers and curriculum developers of outdoor education are discussed.

Glaser (1978) speaks of the paradox faced by naturalistic researchers when attempting to write about a theory: "Writing freezes the ongoing . . . (causing it to) be read as a fixed conceptual description" (p.129). Although this fragmentation of reality is inevitable, the researcher can minimise such effects by constructing a theory that is workable and has the potential to be readily modifiable. The theory should avoid excessive detail which causes an over-reliance on time and context, leading to greater generalisability. A theory is thus judged upon its integration of concepts, relevance to the area studied and workability.

The Theory of Influences on Content Selection by Outdoor Education Teachers

The theory states that selection of outdoor education content by teachers is mainly governed by the use of expertise. Using expertise includes drawing on presage factors and reflecting on and reacting to contextual factors.



Key to Figure

- Behaviour
- ★ Governing factor (core category)
- Classification of factors
- Factors (categories)

Figure 9. Integrative diagram representing the theory for teacher content selecting in outdoor education at the schools studied.

The remainder of this chapter is devoted to two sections, both designed to enhance an understanding of the theory. The first is a more detailed explanation of the constructs, offered in Figure 9, which shows how they relate to (are grounded in) the data. The second is a discussion of the implications of the theory, including case-specific examples to demonstrate the theory's explanatory power.

The Theory's Constructs

The theory shows how factors combine to produce an effect on content selection. These factors are weighed up in a holistic sense, and as such it would be difficult, if not impossible, to measure or predict the individual impact of each factor. It should also be remembered that this is not an exhaustive list. These are the factors given most importance, identified by use of accompanying language or number of times of reference, by the outdoor educators interviewed.

In becoming the core category, expertise has become operationally defined as the sum total of teacher-related behaviours, skills and beliefs that are used, wittingly or unwittingly, when planning or changing the formal curriculum. As proposed by the theory, the use of expertise by teachers generally influences the selection of content for outdoor education. However, as the dual arrows in Figure 9 indicate, expertise is also influenced by content selection and its attendant consequences. In this sense, the relationship between expertise and content selection is bi-directional. This is consistent with the assumptions of the naturalistic paradigm, which disagrees with the concept of unidirectional causality offered by the positivistic paradigm (Lincoln & Guba, 1985; Glaser, 1978). The theory suggests, by definition, that previous experience from implementing selected content contributes to expertise.

Presage Factors

Presage factors include ideology and skills (both performance [hard skills] and pedagogic). Detailed explanations of each of these are offered in chapter 4.

Drawing on presage factors.

Content selection has been shown to be influenced, through the use of expertise, by drawing on presage factors. This includes examining factors such as pedagogic and performance (hard) skills, and ideology. Teacher skills were considered significant by all teachers. A typical response was "Skills are a real problem. . . . They have to be there otherwise problems (safety) can arise" (Teacher C). As implied by the arrows in Figure 9, content selection and presage factors also influence one another, as experiences with content affect the presage factors of skills and ideology. For example, the implementation of selected content, provides experience for teachers, which increases skills. Teacher A suggested this by stating: "You have to attempt stuff that you think you can handle safely and keep at one level (until you) gradually acquire skills". An example of how the consequences of content selection can influence ideology is offered by teacher C who stated: "Girls tend to enjoy the affective and reflective aspects (of outdoor education), and so I have found that I've had to modify my teaching a bit to allow for them otherwise they get turned off".

The theory shows that teacher ideology is drawn on when selecting content. This may not always be a conscious activity. However, it was acknowledged by all teachers interviewed, with comments such as: "It (the formal curriculum) changes between teachers. . . . Some teachers are technical instructors, whilst others are environmental instructors. Even though we might run the same general unit, for example roping, we would interpret the content differently" (teacher A).

Contextual Factors

Contextual factors important to outdoor education teachers include costs, time, resources and learner needs. A detailed explanation of each of these is offered in chapter 4.

Reflecting on contextual factors.

Reflecting on contextual factors takes place outside of the teaching environment, at the time of preparing the formal curriculum, and constitutes an analysis of the contingencies (rewards versus costs) for proposed or possible content. For example, if upon reflection of past experience particular content is anticipated to be too expensive, time consuming, not challenging enough for the students or too physically demanding for girls, or if resources will be difficult to obtain, it is highly probable it won't be selected. However, if only one factor is perceived to be present, teachers will often attempt to get around the problem rather than exclude the content. For example, teacher C suggested "If parents ring up and say they can't afford an expedition, we let them (students) go either at reduced cost or without paying. We just have to find other ways of making up the cost such as getting them to do some repairs to equipment, rather than calling off the expedition".

Reacting to contextual factors.

Reacting to contextual factors causes subsequent content-selecting before or during implementation. In reaction to the immediate imperative of certain factors, teachers have to perform further content selection. This phenomenon can only be inferred since the study did not include participant observation, however it was often referred to by teachers and remains an important part in the shaping of outdoor education curriculum by teachers. When plans are made outside the teaching environment, even the most thorough analysis of contingencies may not account for unforeseen factors

arising out of the specific context. For example unusual weather patterns, bushfire, accidents and injuries or theft of equipment cannot reasonably be anticipated. Therefore, teachers must perform situational analyses close to (but prior to) the activity, or even concurrently with implementation.

Discussion of Implications

The theory gives rise to some key implications for teachers, policy-makers and centralised curriculum writers in outdoor education. This section reports and discusses a number of such implications.

This theory of outdoor education teacher content-selection is at odds with the literature. Many studies into influences on curriculum decision-making produce a large number of factors, only a fraction of which are directly associated with teachers of the subject. This incongruity may be accounted for by the methods of inquiry used in previous studies. This study has found that it is the factors foremost in their consciousness which produce the most profound effects because it is these factors which resonate with their lived experiences as outdoor educators. Given a questionnaire or similar instrument characterised by preconceived constructs, it is probable that teachers could respond to a greater number of possible factors. However, such responses may be trivial, since the theory suggests their combined impact on content selection would be minimal. Furthermore, Sparkes (1990) suggested teachers may use a "strategic rhetoric" where they convey false or misleading impressions about their teaching actions and experiences (p.35). It is more likely that the in-depth interviews, with their faculty for immediate cross-examination and clarification of responses, avoided the trappings of this phenomenon.

The emergence of ideology in this theory as important to teacher planning, is significant for outdoor education. Gibson (1986) refers to ideology in education as a "form of consciousness which pervades common-

sense assumptions and everyday practices" (p.11). Sharp, Green and Lewis (1975) are quoted by Tinning (1990) as suggesting a teacher's ideology includes epistemological assumptions, beliefs and understandings regarding society and the role of education, and assumptions about the tasks of the teacher. It suggests the content can be implemented in different ways, even when teachers are working from the same formal curriculum. This is supported by teacher A who suggested "we are implementing different programmes, even though we are doing the same general unit. . . . He is a technical instructor and I am an environmental instructor. . . . They (students) are getting quality programmes in two different areas".

The theory for influences on outdoor education content selection by teachers contains a key proposition: That teachers, as planners and implementers of outdoor education, consider factors most closely related to their teaching experiences as having the most profound effect. Teachers use their expertise to reflect on contextual factors such as time, costs and resources that were influential in the past, and project these images to likely future events. They subsequently manipulate curricula throughout the programme in reaction to the appearance of unforeseen circumstances.

An implication of this theory of curriculum planning is that must be sensitive to the context for implementation, including congruence with teachers' presage factors, for it to be accepted. This implies school-based curriculum development is vital for the success of outdoor education. Teachers must possess the expertise to be able to confidently and competently plan their own curricula, including its rationale and goals.

Summary

This chapter has presented the theory for content selection by outdoor education teachers. In doing this, the theory's constructs were defined and its implications discussed. The examination of implications of the theory has led to the development of a number of implications for , teachers, policy makers and external (to school) curriculum and resource developers in outdoor education. These implicatons are listed in chapter seven.

CHAPTER SEVEN

RECOMMENDATIONS

Introduction

The presentation and subsequent discussion of the theory for content selection by outdoor education teachers, conducted in chapter seven, holds important implications for a number of key personnel involved in the administration, preparation and teaching of the subject. This chapter discusses recommendations arising from the study under five headings:

1. Skilling of graduate teachers;
2. Escaping the timetable trap;
3. Activity location;
4. Philosophical shift; and
5. Intervention strategies.

Recommendation One - Skilling of Graduate Teachers

The emergent importance of the expertise factor as the key determinant of content selecting identified a significant hurdle faced by outdoor education. The absence of an undergraduate course for pre-service outdoor educators leads to a skill deficit amongst beginning teachers. An outdoor educator, under the present conditions, cannot achieve competence without many years of experience and a constant upgrading of knowledge and skills. This effectively places outdoor education as a relatively youthful subject with a small and refractory base of skilled personnel, a perilous position at the very least.

Edith Cowan University, (Perth, W.A.), already offers undergraduates within the physical education course a limited exposure to outdoor pursuits through one unit offered by the Department of Human Movement Studies. However this study has shown that it may be

inadequate in terms of time and depth of exposure to outdoor activities. The course accreditation processes of the university proscribe the inclusion of teaching and curriculum dimensions in Human Movement units as these are the province of the Department of Physical Education. This is a significant disadvantage to students since exposure to such matters is only available through entrance to a post-graduate course. It is therefore recommended that a pre-service course for aspiring outdoor educators be instituted in Western Australia. Furthermore, a specialist teacher-training organisation such as Edith Cowan University, would be best equipped to take responsibility for this.

Recommendation Two - Escaping the Timetable Trap

Timetable rigidity is one of the foremost problems faced by outdoor education teachers. Many activities and goals in the subject require extended periods of time. There is an implication here that schools need to relax the rigidity of their timetable structure to accommodate such problems. One of the schools studied provided an operational example of this where the outdoor education teachers negotiated a flexi-time system. This idea allowed students to begin school at an earlier time, for example 7.30 a.m., and then leave earlier in the afternoon. Adjusting timetable practices may require much effort, on the part of the teachers, to negotiate and implement. However, the benefits accrued in the form of a successful and rewarding outdoor education programme far outweigh the cost of remaining within existing temporal restraints.

Recommendation Three - Activity Location

Teachers in this study sometimes travel large distances to access the best possible facilities. Although sometimes this may be necessary, it can also be the result of the recreative and outdoor pursuits focus of some programmes. Factors such as time and cost limit the programme's access to

out-of-school environments. To approach outdoor education's potential, teachers need to plan to utilise local facilities. The success of outdoor education programmes may depend on the sacrifice of some quality of learning environment for time to experience and learn. The pursuit of enjoyment and adventure should not dictate the quality of the learning experience by, for example, omitting a debrief because of lost time travelling.

Recommendation Four - Philosophical Shift

Although teachers have been shown to have the final say over what appears in the curriculum, it appears that they are inarticulate about philosophical matters. With teacher expertise being the central factor affecting curriculum decisions in outdoor education, it is vital that teachers are exposed to the various philosophical directions relevant to outdoor education and practised in critical analysis and the application of underlying and global concepts for the subject.

The institutional view of outdoor education as a component of physical education may hinder the achievement of many outdoor education goals, according to the results from this study. The incompatibility of such goals with those traditionally held by physical education precipitates a weakness in the subjects' underlying structure. Outdoor education needs to become identified more synonymously with both the environmental sciences and the personal development fields, than with outdoor adventure activities. Gough (1989) argues for a transcendence from "shallow environmentalism" to "deep ecology" as shown in Figure 10.

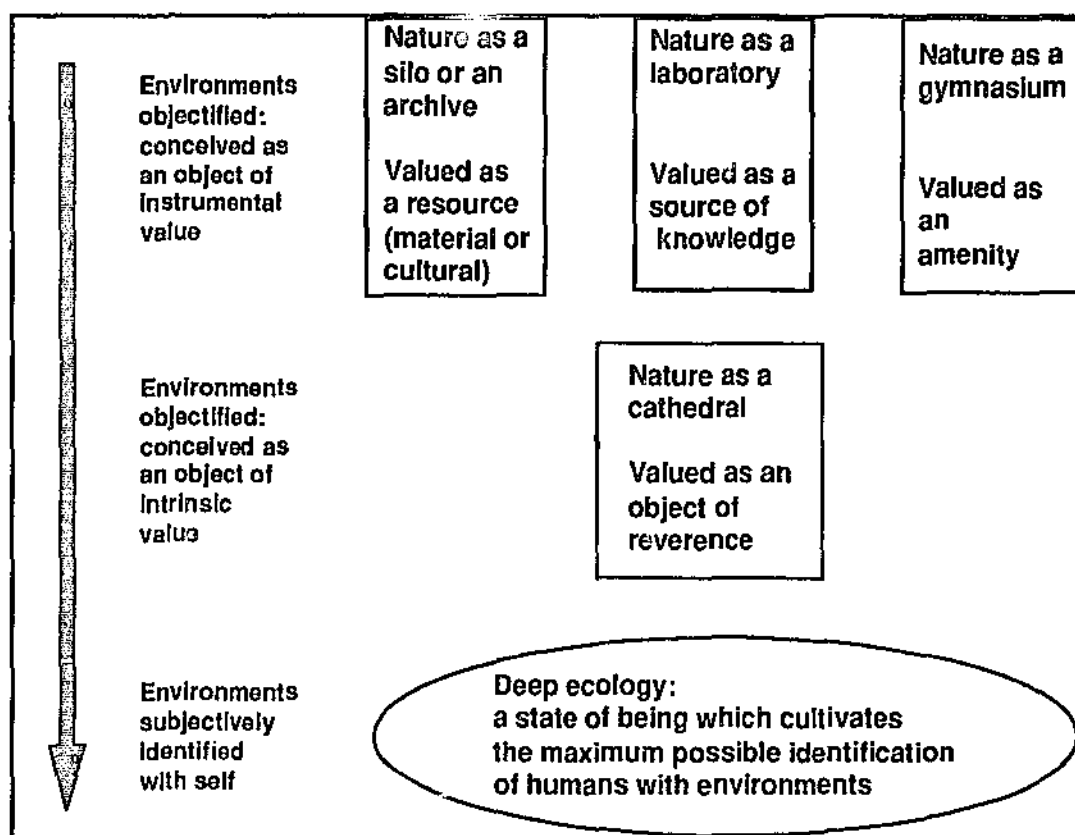


Figure 10. Philosophical reconceptualisation of outdoor education: towards a deep ecology approach.

Note. From "Renewing our mythical links with nature: some arts of becoming ecopolitical in curriculum work" by N. Gough, 1990, Curriculum Perspectives, 10 (2), pp. 66-69.

Recommendation Five - Intervention strategies

The study showed that teachers make decisions about certain aspects of the formal curriculum such that they have the final say about what content is ultimately included. Decisions require context-specific information often available only to the teacher. Curriculum intervention strategies, such as the Ministry of Education formal curriculum, therefore should possess the flexibility to both allow, for and assess, this teacher control of the formal curriculum if they are to be successful.

Secondly, teachers need to be more explicit in the communication of their curriculum-decisions to policy makers, resource developers and centralised curriculum writers. It has been suggested that strategic rhetoric may often mask the true issues behind planning and implementation problems, making intervention strategies redundant once the class begins. Unless the key personnel mentioned above can make non-threatening inquiry into teacher decisions and the influences guiding them, such that frank and truthful admissions of reasons for non-implementation will not result in loss of teacher-status, strategic rhetoric will always hinder (and perhaps prevent) external documents and resources from being truly effective.

Summary

This chapter has offered a number of recommendations extracted from the implications of the theory for content selection by outdoor education teachers. These recommendations are directed at a range of personnel involved with outdoor education, including teachers, policy makers, curriculum writers and teacher-education institutions. To conclude the thesis, chapter eight acknowledges some limitations to the study, and suggests further directions for research into the area.

CHAPTER EIGHT

CONCLUSION TO THE STUDY

Introduction

In concluding the study, it is important to acknowledge limitations that may have arisen or been detected. It is not until these details have been examined, that further research agendas may be prescribed. This chapter will identify a number of limitations of the study. The chapter concludes with suggestions for further study.

Limitations of the Study

A number of factors limited the study. There is a deficiency of prior research focusing specifically on outdoor education. Although previous studies have investigated some general factors affecting the planning and implementation of programmes (Fullan, 1991; Huberman & Miles, 1984; Rosenblum & Louis, 1981), it is difficult to say whether these are generalisable to outdoor education. It was important to adopt a method of inquiry capable of inducing whether any of these factors apply to the field.

The use of interviews contains an inherent limitation. According to Leedy (1989), "the researcher cannot avoid having data contaminated by bias" (p.167). This is a particular possibility considering the potential rapport between the interviewer and the respondent (Judd, Smith, & Kidder, 1991). To minimise the loss of replicability through researcher bias, the thesis includes bracketing of researcher beliefs, description of the contexts of data collection and details of the audit trail from data analysis.

The inherent limitations of honours level projects, as a primary introduction to research, results in limitations of size and scope. There are several factors impinging on the comprehensiveness of the study. The time limitation for data collection and analysis is one semester. The temporal and physical demands of a naturalistic study effectively limit the questions

to be asked in particular settings. According to Strauss (1987) there is a requirement for appropriate time for reflection during naturalistic data analysis. The selection of only two schools maximises the value and authenticity of results within the time limitations of honours theses, and allows time for mature reflection. However, this time was insufficient to adequately complete selective sampling. As such, the theory needs further exploratory testing in similar contexts to ensure that the constructs and categories in the theory are adequate, and no categories remain undetected.

Delimitation

The scope of an honours project precludes the researcher identifying an exhaustive list of factors. It may be that teachers' personal construction of meaning ultimately determines implementation of curricula (Fullan, 1991). If teachers do not perceive a large number of factors to be affecting implementation at the time of research, then it is pointless to pursue an exhaustive list of possibilities. This study sought only the major factors that teachers perceive to be important determinants of planning and implementation.

The identification of limitations to the research is an important prerequisite to the prescription for further studies.

Recommendations for Further Study

As mentioned in the discussion of limitations, due to the temporal and physical restraints associated with honours research, there is a need for researchers to further test the theory for content selection by outdoor education teachers. The theory is designed to be readily workable such that any factors appearing in similar settings, but not identified by this study, should fit comfortably into the major categories. The theory may be expanded or refined as new examples in alternative settings are identified.

Since this study was an exploratory, descriptive attempt to examine teachers' decisions regarding content selection in outdoor education, there is a need to test the theory against similar, and other, contexts. As a substantive theory, it is designed to account for the majority of alternative factors that appear. Whether these vary from context to context, or whether the theory is generaliseable to alternate settings must be examined. This agenda includes the use of alternative paradigms to both confirm or disprove the theory in a broader range of settings, and to use the theory to critique a range of issues that may arise, including topics such as teacher decision making in outdoor education, training of teachers and centralised control of a curriculum.

Conclusion

This study has examined outdoor education teachers' perceptions about factors that influence their selection of content. As a consequence, it has produced a substantive theory accounting for these phenomena in the schools studied. This theory holds some important implications for key stakeholders in outdoor education, including policy makers, curriculum and resource designers, teachers and teacher-training institutions.

In conclusion the Bachelor of Education with Honours degree has provided me with an invaluable introduction to academic research. An understanding of the strengths and weaknesses of this, and other, research designs has set an ideal foundation upon which a constantly developing career in educational research may be fostered.

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APPENDIX A

INTERVIEW GUIDE (SEMI-STRUCTURED)

1. Demographics:
 Name;
 Age;
 Teaching position; and
 Teaching history (including "why outdoor education?").
2. Summary of content in outdoor education programme.
3. Reasons given for content that is included.
4. Any additional/alternative content desired in the programme?
5. If so, why is it not included?
6. Extent of change in the outdoor education programme (changes to the formal curriculum) from year to year, or during year.
7. Personal contributions to the processes of selection and planning of content (if any).
8. Beliefs, feelings and/or attitudes about outdoor education in the school. (General question).
9. Why do you choose the content that you do; why do you leave out the content that you don't? (Especially desired content).
10. Level of use of Ministry of Education objectives and support materials. (Reasons for level of use/non-use).
11. Further comments? (Especially any further influences on their planning and teaching of outdoor education?).

APPENDIX B
CONTACT SUMMARY SHEET

MAIN THEMES OR ISSUES NOTICED:

NOTES ON INFORMATION RECEIVED (OR NOT RECEIVED) ON
TARGET QUESTIONS:

QUESTION

INFORMATION

OTHER SALIENT INTERESTING, ILLUMINATING OR IMPORTANT
INFORMATION:

ANY FOLLOW UP REQUIRED:

APPENDIX C

LETTER OF CONSENT TO PARTICIPATE IN THE STUDY

CONSENT FORM

I am conducting research that examines the state of programming and curriculum in outdoor education. As part of this investigation I would like to talk to people directly associated with the subject. The primary aim of the study is to identify the major factors affecting the provision of outdoor education from the points of view of those directly involved with it.

The study is potentially of significance to outdoor education. It can serve as a means for increasing the knowledge-base of the subject, specifically the problems associated with its' teaching. It has potential to increase awareness of the benefits of outdoor education, as well as to raise its status through the publication of research findings.

If you choose to participate in the research I would like to interview you regarding your thoughts and perceptions about various aspects of your involvement with outdoor education. The interviews will be conducted at a place and time that is convenient to you, and will take no more than one hour.

Participation in the research is voluntary and will not affect your position as a teacher. All information obtained will remain confidential and will not be used for any purpose other than those described. Your identity and that of your school will be protected and will not be disclosed in any published works without your prior permission. Any interpretations I may make of your comments will be returned to you so that you can verify that they are an accurate reflection of your thoughts.

Any questions concerning the project can be directed to Mr. Stephen Thorpe by phone on 370 6490 or by mail to the Department of Physical and Health Education, Edith Cowan University, Mt. Lawley.

I _____ have read the above information and any questions I have asked have been answered to my satisfaction. I agree to participate in this activity, realising that I may withdraw at any time.

I agree that the research data gathered for this study may be published provided I am not identifiable (unless I have otherwise granted personal permission).

I grant permission for the interview/s to be audio-recorded.

Participant _____ Date _____

Investigator _____ Date _____

APPENDIX D

SAMPLE OF SCHOOL FORMAL CURRICULUM (SPECIFIC OBJECTIVES)

OUTDOOR EDUCATION 6252

FOREST ENVIRONMENT

Unit Description:

This unit introduces the student to the concept of terrestrial studies involving flora, fauna, geology, and astronomy. Bushwalking, camping, and navigation are the main outdoor pursuit skills developed in this unit to access bush environments.

Outcome Statements:

At the completion of this unit students should be able to:

1. show an awareness of the ecosystems of bush environments in several metropolitan National Parks;
2. demonstrate planning, preparation, and participation in bushwalking and camping activities in bush environments;
3. work co-operatively as a group member in excursion and expedition settings;
4. develop ethics of minimum environmental impact when using natural settings.

Objectives:

This unit will focus learning experiences to develop:

Physical Skills

1. Outdoor cooking;
2. Map and compass navigation;
3. Environmental and celestial navigation;
4. Identification of predominant trees, understorey, and wildflowers;
5. Identification of predominant birds, reptiles, frogs, spiders, and insects;
6. Lightweight camping techniques;
7. Minimum impact techniques; and
8. Recording outdoor experiences.

Social Skills

1. Communicating effectively with other group members;
2. Working co-operatively with other group members;
3. Participating in group decision making; and
4. Experiencing leadership responsibilities.

Emotional Awareness

1. Act responsibly and safely in outdoor situations;
2. Appreciate and enjoy natural settings; and
3. Reflect on personal abilities and the behaviour of others.

APPENDIX E

MINISTRY OF EDUCATION FORMAL CURRICULUM (SPECIFIC OBJECTIVES)

OUTDOOR EDUCATION 3.2

UNIT DESCRIPTION

This unit is designed to develop a growing sense of competence in dealing with the natural environment. There is an emphasis on safety throughout. The method uses an experimental process to develop self-responsibility. The student will gain an understanding of emergency response through emphasis on survival techniques.

UNIT OBJECTIVES

At the completion of this unit the students will be able to:

- demonstrate the use of ropes and associated equipment in solving problems in the natural environment; and
- demonstrate adaptation of lifesaving techniques in diverse circumstances.

SPECIFIC OBJECTIVES

- Identify the properties of ropes and associated equipment.
- Recognise vocabulary and terminology for communication in ropework.
- Build a rope ladder with splices and/or hitch techniques.
- Haul a weight up and lower a weight down an embankment.
- Transfer an object across a hazard or imaginary river.
- Make a shelter with knots and hitches.
- Demonstrate emergency communications.
- Construct a stretcher and carry out evacuation procedures.
- Improvise direction-finding by day and night.
- Apply the principles of conservation of energy.
- Demonstrate survival floats and swims.
- Explain the natural forces of buoyancy in water.
- Perform life-saving resuscitation and tows.

APPENDIX F
MINISTRY OF EDUCATION FORMAL CURRICULUM
(SPECIFIC OBJECTIVES)

OUTDOOR EDUCATION 4.2

UNIT DESCRIPTION

This unit is designed to develop a sense of responsibility in preparing for unpredictable conditions which may be encountered in the natural environment. The course encourages the development of skills which will be of value in taking care of the individual self and of the group. An understanding of the fundamental principles of first aid and of the minimum standards of fitness required for survival in remote areas, will be gained.

UNIT OBJECTIVES

At the completion of this unit students will be able to:

- demonstrate first aid for environmental problems and accidents; and
- demonstrate fitness for challenging situations.

SPECIFIC OBJECTIVES

- Make immediate response in an emergency.
- Manage accidents and apply appropriate first-aid.
- Demonstrate appropriate response to environmental problems.
- Show balance and coordination in activity skills.
- Practise the principles of endurance for extended periods.
- Illustrate the effects of endurance activities on the energy systems (e.g. negotiate a ropes course).
- Demonstrate how to extend body resources.

LITERACY OBJECTIVE

Students will develop literacy skills through participation in learning activities selected to develop each unit objective. Each learning activity may require specific literacy skills.

ASSESSMENT

As per Outdoor Education 3.2.

APPENDIX

MINISTRY OF EDUCATION FORMAL CURRICULUM (SPECIFIC OBJECTIVES)

OUTDOOR EDUCATION 5.2

UNIT DESCRIPTION

This unit is designed to give the student the ability to plan a personal outdoor challenge. The student learns to distinguish between a situation which is challenging and one which is unsafe. This is achieved through an objective judgement of self and the forces of nature. It is based on an understanding of the individual's capabilities.

UNIT OBJECTIVES

At the completion of this unit students will be able to:

- explain the factors involved in planning outdoor activities; and
- demonstrate an awareness of the nature and characteristics of an ecosystem.

SPECIFIC OBJECTIVES

- Interpret maps and charts.
- Perform direction-finding exercises.
- Plot a course.
- Demonstrate route planning.
- Demonstrate group organisation for an expedition.
- Identify the natural habitat.
- Plan minimum impact techniques for specific ecosystems.

LITERACY OBJECTIVE

- Students will develop literacy skills through participation in learning activities that are selected to develop each unit objective. Each learning activity may require specific literacy skills.

APPENDIX H
MINISTRY OF EDUCATION FORMAL CURRICULUM
(SPECIFIC OBJECTIVES)

OUTDOOR EDUCATION 6.2

UNIT DESCRIPTION

This unit is designed to give the student the ability to prepare for a personal outdoor challenge. Using the expedition process the student applies generalisations from the learning of expedition skills in the choice of clothing, equipment, food and minimum impact techniques.

UNIT OBJECTIVES

At the completion of this unit students will be able to:

- demonstrate self management in expedition activities;
- demonstrate group management in expedition activities;
- demonstrate eco-management in expedition activities.

SPECIFIC OBJECTIVES

- Employ a variety of cooking methods.
- Select food for a balanced diet on an expedition.
- Evaluate equipment for specific conditions.
- Organise the packing and loading of equipment.
- Adapt camping techniques to the ecosystem.

LITERACY OBJECTIVE

- Students will develop literacy skills through participation in learning activities that are selected to develop each unit objective. Each learning activity may require specific literacy skills.

APPENDIX I

SAMPLE OF INTERVIEW TRANSCRIPTS AND CODING

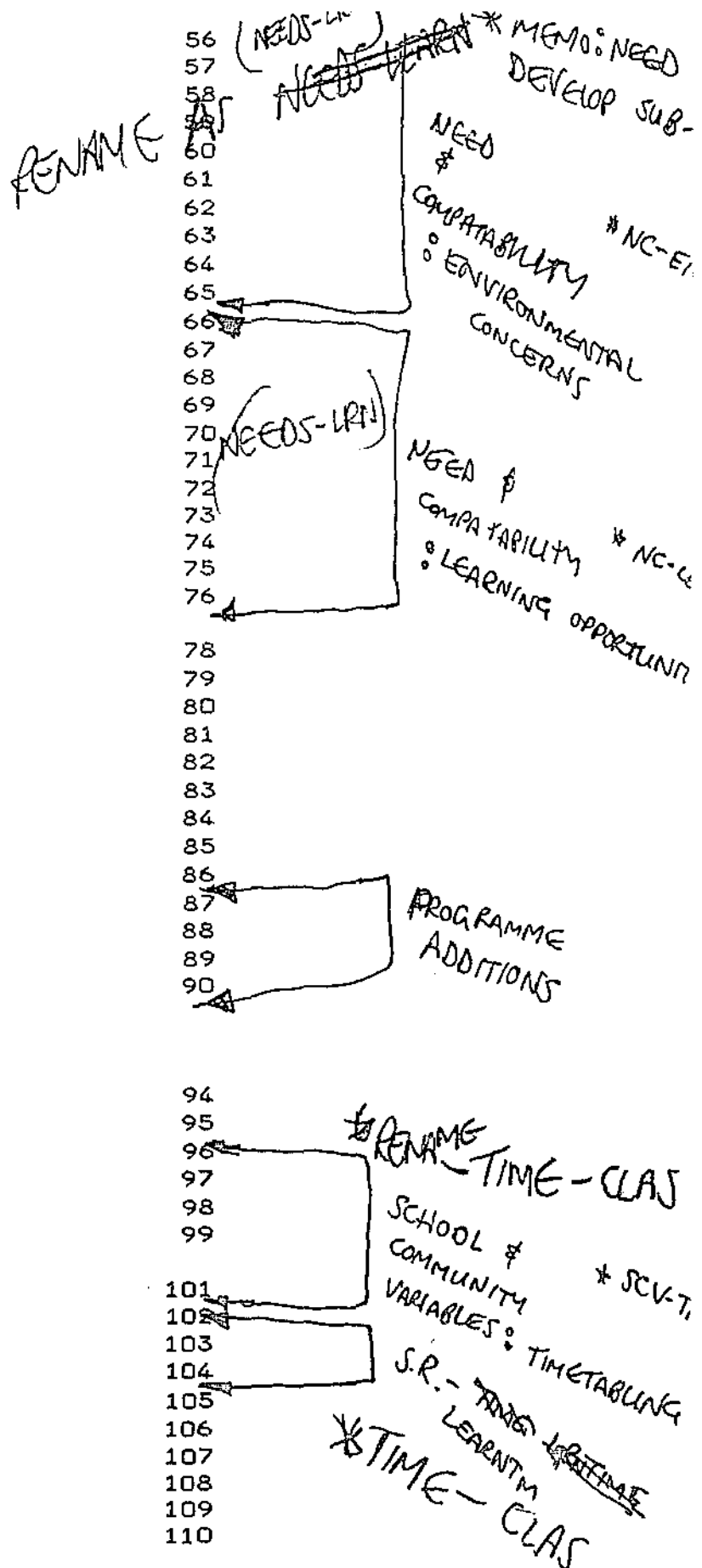
and allowing kids to have an access to the environment with conservation in mind so that they can go away and take the advantages of the environment and be aware of those advantages and hopefully take part in taking care of it and minding it. Also there is a greater scope for individual self knowledge, I think, when you are doing activities in the bush. I think there is something inherently good about taking kids into the bush that the bush gives the kids. That the natural environment gives the kids.

Question - Out of the activities that you do in your program. I've got a list of all them obviously, but are there any things that you would like to have in your program that you can't fit in there for one reason or another.

Answer - Scuba diving. That's what I am working on. Maybe next year we might have that.

Question - Why isn't that in there at the moment.

Answer - It is a matter of time tabling because the kids are locked into the school time table and can only get out for an hour within school time at the moment. You need more time to get at them. You need more than one hour sessions. Next year what I am going to do is try and get them out for an hour after school as well, add that on to the seventh and eighth period, the last two periods of



APPENDIX J

SAMPLE OF INTERVIEW TRANSCRIPTS AND CODING

do was outdoor ed as I was sick and tired of the sports side of physed and I just put

in as many classes as I could and each year put in extra and encouraged the kids to enjoy it and gave them the opportunities to enjoy it. So it is a bit of both. They really enjoy it, I really enjoy teaching it and they have

chosen it, at the end of the year when they get their selection sheets for the following year and they put down

outdoor ed the administration finds that where there were thirty or forty of the year group putting their name down now there is up to two hundred putting their name down in the lower school and they have to provide more classes.

Question - So you don't have anyone from above saying hey you have got enough and that is it.

Answer - No In fact they are saying go for it more within class time. But they won't give us any more expedition time. So we are limited. We can have more classes during school time but we can't get any more expedition time within school time and I guess the limiting factor now is that we don't want to run programs out of school time on our weekends. The staff that is. So we are limited by the amount of school expedition time. We could take more school classes but that would

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EXP-NTRST

NEED &
COMPATABILITY
*TV-INTEREST

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EXP-INTREST

TEACHER:
ENTHUSIASM
*TV-ENTHUS

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TIME-ADMIN

SCHOOL &
COMMUNITY:
STUDENT DRIVER
ADMINISTRATION
*SCV-ADMIN

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TIME ADMIN

SCHOOL &
COMMUNITY:
ADMINISTRATION
SUPPORT

TIME-ADMIN

SCHOOL &
COMMUNITY
EXPEDITION

FINANCIAL
OR
MATERIAL:
TIME

*MEMO: THEM
"CONFLICTS" (TO APPEAR.
eg: SUBJECT NEEDS
VS ADMIN. REFUS.

APPENDIX K

SAMPLE OF INTERVIEW TRANSCRIPTS AND CODING

it is vital that if we want to run a quality programme that that has to be supported by the school. It is the only way we can travel large distances to access environments. Very little outdoor ed is done on the campus here. We run a programme that operates on the time table of travel on a field experience, review it in class, build on the skills in class and do another field experience. If possible we try and have a briefing before the next field experience. So that is the rotation that we work on and basically we have got a three hour block of time that we do the field experience in and then we have got one hour blocks of time in reviewing skills or briefing them. So that is the structure for us. So one the time table has to fit the programme otherwise it won't work and secondly you have got to have money. Well we have got a very substantial budget in the school and at the moment without, just off the top of my head I think it is somewhere in the order of 1,000.00 a year that we spend on outdoor ed. So it is quite substantial I would think compared to other schools and it certainly is bigger than the physed budget at this point in time and that is because we are allowed to charge more fees for outdoor ed than we can for physed because it is an elective area. The third thing that you have got to have is resources. We are lucky because we back up to the expedition boatshed and we have got a lot of

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SR-EXPTIME
TIME-EXPER
CLASSED

TIME-ADJ
SR-TIMBL

SR-COSTS

F.A.