

**Functions and purposes of outdoor education  
in Singaporean education and society:  
An instrumental case study.**

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# Statement of Authorship

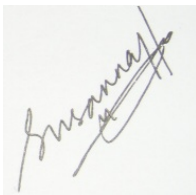
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Signed:

A handwritten signature in black ink, appearing to read 'Susanna Ho', with a large, stylized flourish at the end.

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## Abstract

The primary aim of this research is to develop a greater understanding of the purposes that outdoor education *does*, *could*, and *should* serve in Singapore. Through a naturalistic approach, as initially described by Yvonna Lincoln and Egon Guba (1985), the research is conceived as an instrumental case study of one particular school's outdoor education programme. The study employs a number of data production techniques including interviews, participant observation and document analysis. Transcribed interview data are organised and analysed with the assistance of NVivo software, and are also displayed as 'data poems'. A conceptual framework informed by grounded theory is used to interpret data. Links between the literature review and the grounded theory of outdoor education that emerges from the case study are explored. Gert Biesta's (2009) conceptualisation of three functions of education is also adapted to frame deliberations on the purposes of outdoor education in Singapore's sociopolitical and educational milieu.

The findings demonstrate that many teachers and students recognise the potential of outdoor education to deliver beneficial educational outcomes, but also recognise the difficulties of optimising these outcomes within a competitive academic curriculum. The study also reveals the difficulties of effecting policy changes in outdoor education that go beyond system-wide structures and provisions to address the subtleties and nuances of local curriculum contexts. Participants in the study acknowledge the potentially important contribution of outdoor education to addressing new educational imperatives arising from contemporary environmental concerns, such as those associated with climate change. The thesis concludes by suggesting that outdoor education in Singapore could and should give high priority to serving three educational purposes, namely, building resilience, building emotional bonds with the place that constitutes Singapore, and building ecological literacy. In pursuing such purposes, outdoor education in Singapore might lessen the gap between the educational outcomes it currently produces and those it could achieve in the future.

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## Abbreviations

ABC	Adventure Based Counselling
AQ	Adversity Quotient
BB	Boys' Brigade
CCA	Co-Curricular Activities
CHR	Christ Church Secondary School
CIP	Community Involvement Programme
CME	Civics and Moral Education
COE	Centre of Excellence
CPA	Computer Applications
CQ	Cultural Quotient
DOE	Desired Outcomes of Education
ECG	Electrocardiography
ECAC	Extra-Curricular Activities
EOTC	Education Outside The Classroom
EQ	Emotional Quotient
FVC	Full Value Contract
HOD	Head of Department
IQ	Intelligence Quotient
IT	Information Technology
MINDEF	Ministry of Defence
NAOE	National Association for Outdoor Education
NAPFA	National Physical Fitness Assessment
NCC	National Cadet Corps
NE	National Education
NIE	National Institute of Education
NPCC	National Police Cadet Corps
NS	National Service
NYAA	National Youth Achievement Award
OAC	Outdoor Activities Club

OBS	Outward Bound School
OE	Outdoor Education
PAP	People's Action Party
PA	People's Association
PE	Physical Education
PSLE	Primary School Leaving Examination
RACE	Risk-based Adventure Curriculum for Excellence
SAF	Singapore Armed Forces
SH	Subject Head
TLLM	Teach Less Learn More
TSLN	Thinking School, Learning Nation
TS	Thinking Skills

# Chapter One:

## Introduction

*“Where you come from,” said the little prince,  
“people grow five thousand roses in one garden -  
and still they do not find what they are looking for.”*

(Antoine de Saint-Exupéry, 1995, p. 79)

The “roses in one garden” described by the little Prince in the story can be used as a metaphor to describe the current state of outdoor education in the educational landscape of Singapore. Outdoor education has gained wide acceptance in Singaporean schools as a distinct curriculum offering in recent years (Wang, Liu, & Khalid, 2006). Some schools include outdoor education options as part of their physical education curriculum while others offer them under the leadership or co-curricular activities (CCA) programmes. However, the abundance of outdoor education programmes in Singapore schools does not necessarily mean that outdoor educators are satisfied with, or are clear about, the purposes of these programmes.

Outdoor education in Singapore is not a formalised curriculum. It sits on the fringe of the formal<sup>1</sup> curriculum whereby schools deliver programmes under the co-curricular framework. It can also be described as one of those “good-to-have” programmes that schools use for publicity during their recruitment drives. In my previous research (S. Ho, 2003), I found that more than 90 percent of schools in Singapore expose their students to at least an outdoor and adventure programme or experience despite the lack of formal curriculum for outdoor education. Outdoor education programming in Singaporean schools can take the form of an in-house residential camp for a cohort of 300 students at one of the four adventure centres managed by the Ministry of Education (MOE). Alternatively, it can be an Outward

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<sup>1</sup> The formal curriculum is made up of subjects such as English, Mother Tongue, Science, Mathematics, Physical Education, Civics and Moral Education. They are subjects taught during formal school hours.

Bound experience for segments of the student population. Schools with larger budgets may even organise overseas expeditions for their pupils. Indeed, the large amount of time, effort, budget and resources put into these programmes reinforce their popularity. John Wang et al. (2006) observe that there has been a steady increase in the number of schools in Singapore offering adventure and outdoor education programmes in recent years. Wang et al. (2006) speculate that this increase in demand is driven in part by the “MOE’s emphasis on character development and mental toughness” (p. 20). For instance, the former Education Minister, Mr Tharman Shanmugaratnam (2004a), called on schools to build resilience<sup>2</sup> (p. 5) amongst students through CCA and outdoor education. Thereafter, Prime Minister Mr Lee Hsien Loong, in his inaugural National Day Rally speech in 2004, commended the Outward Bound approach toward education and student development (Outward Bound International, 2004b).

Generally, outdoor education programmes in Singapore schools aim to produce positive changes in participants by introducing them to adventure activities designed to encourage self-discovery and character building (Wang, et al., 2006). Support for outdoor education is evident in the education ministry’s policy of encouraging all secondary schools to provide opportunities for their students to participate in at least two camping experiences in their four to five years of school life (Shanmugaratnam, 2004a). Although there is strong government support for the beneficial role that outdoor education can play in the development of young people (Tay, 2006), a quick scan of the local research literature shows that there is little research on the purposes of outdoor education in Singapore schools and in the broader education system. Hence, the primary aim of this thesis is to develop a greater understanding of the purposes of outdoor education in the broader context of a Singapore education system.

The secondary aim of the study is to inform future research studies to further expand and diversify the body of knowledge informing outdoor education practice

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<sup>2</sup> A valued outcome of outdoor education in Singapore.



in Singapore. To date, outdoor education research in Singapore has been predominantly quantitative and outcome-based. Local studies (eg., Gassner & Russell, 2008; S. Ho, 2003; G.L.C. Ng, 2008; M. Tan, 2005; Tay, 2006; Wang, Ang, Teo-Koh, & Khalid, 2004; Wang, et al., 2006) have sought to elucidate the effects of outdoor education programmes on students. Like Tony Rea (2008), I acknowledge that research that attempts to “prove” that outdoor education “works” might be useful to some stakeholders and might boost the confidence of some practitioners. However, it does little to inform outdoor education practices or enhance our understanding of the experiences of participants of outdoor education programmes. Although there were recent attempts by Tay Kim Seng (2006) and Cindy Ng (2008) to examine the effects and influence of outdoor education programmes in Singapore through mixed methods, Gert Beista (2007) questions the value of research that focuses on technical questions about “what works”. He argues for the “need for critical inquiry into normative and political questions about what is educationally desirable” (p. 21). Therefore, more but varied research needs to be done to understand outdoor education in schools and the benefits it can potentially provide for Singaporean students.

In this chapter, I describe my journey from growing up in Singapore to becoming a researcher in outdoor education. My intent is to provide a personal context for my interest in understanding the purposes of outdoor education in the Singapore education system. This is followed by a statement of the research questions that frame this thesis and the contribution this study will make to the field of outdoor education. I conclude with some notes on the structure of the remaining parts of this thesis.

## **Definition of Key Terms**

Terms and definitions are used and understood differently in various cultural, geographical and historical contexts. The following terms are defined for specific application in this study, with due consideration of the cultural and geographical sensitivities.

Schools' outdoor education programmes: In Singapore, outdoor education is used synonymously with adventure education. Adventure-based programmes are organised by schools to give students opportunities to engage in outdoor pursuits that range from high challenge courses and rock-climbing activities to journey-based and/or service-learning trips. Clarifying the nature and extent of these experiences in one Singapore school is one outcome of this research.

Ministry of Education (MOE): In Singapore, the government is elected democratically. Government policies are formulated and overseen by various ministries. The Ministry of Education directs the formulation and implementation of policies related to education.

Co-curricular activities (CCA): Organised activities that students engage in after formal school hours. All secondary school students need to enrol in at least one CCA and points are awarded to the students for their participation. Before the year 2000, they were known as extra-curricular activities. The MOE changed the terminology to highlight the significance of CCA in the holistic development of the child.

Desired outcomes of education (DOE): An official document endorsed by MOE in 1998 that delineates a holistic approach to education. It lists the desired capabilities, values and attitudes of students when they graduate from the Singaporean education system.

Outward Bound courses: With affiliation to the international Outward Bound organisation, some adventure-based programmes are organised and conducted by Outward Bound, Singapore (OBS).

Singlish: A local version of English spoken by the majority of Singaporeans. Singapore introduced English as a first language in schools in 1966 as a means to engage with the global economy. Over time, the English used in Singapore has been indigenised and has taken its own local character (Velayutham, 2007). It is a

blend of Chinese dialects and Malay, which is unique to Singapore. Singlish has evolved into an emerging strand of the Singaporean identity.

## My Journey

Self-reflexivity raises questions about the politics of how we go about the doing of our research but also engages the researcher herself in *self*-reflective practices. It acknowledges the researcher's role(s) in the construction of the research problem, the research setting, and research findings, and highlights the importance of researcher becoming consciously aware of these factors and thinking through the implications of these factors for her/his research. (Pillow, 2003, p. 179)

In the passage quoted above, Wanda Pillow acknowledges the issues of trustworthiness and power in research relations. I am aware that my dual status of being a postgraduate student and a specialist with the education ministry adds to the complexity and the politics of my role as a researcher. Thus, self-reflexivity names my attempts to rigorously scrutinise the decisions, judgments and actions I take in conducting the research. The very act of posing difficult questions to myself acknowledges that I cannot be neutral, objective or detached. My commitment to self-reflexivity is important for establishing the trustworthiness of my work.

In the same vein, James McMillan and Sally Schumacher (2006) recognise that “qualitative research is based on a constructivist philosophy that assumes that reality is a multilayer [*sic*], interactive, shared social experience that is interpreted by individuals” (p. 315). Therefore, to enhance the trustworthiness of my work, I used multiple strategies such as prolonged and persistent fieldwork to ensure a match between findings and participant reality. Without going into the details in this introduction, I used a number of strategies to increase the quality of the data while minimising my intrusion on the case study school. Strategies for achieving trustworthiness in this study are further discussed in chapter three.

In order to contextualise my current worldview and interests in this research, I shall briefly describe my personal journey in outdoor education. Like the majority of Singaporeans, I grew up in a high-rise housing estate. I spent my childhood in the “concrete jungle” that constitutes a large part of the Singapore landscape. My first experience of “natural” environments occurred when I was in junior college and joined the outdoor activities club as a co-curricular activity. The club organised many outdoor activities in Pulau Ubin<sup>3</sup> and we also went on trips to the jungles in Malaysia. At that time, the pleasures I took from these adventure activities were chiefly the thrill and excitement of adventure, and the bonds forged with my peers, rather than the beauty or other qualities of the natural environments in which they took place. I eventually undertook a teacher-training course specialising in physical education, during which I was again given the opportunity to learn various outdoor pursuits such as sailing, kayaking and orienteering. Perhaps indirectly, this engagement in developing outdoor skills strengthened my eventual love of the outdoors and the natural environment.

I began my teaching career as a physical education teacher and was given responsibility for organising all the camping trips in the schools in which I taught. I very much enjoyed teaching and interacting with students, but there were times when the intense workload involved in taking students beyond the classroom took its toll on me. However, my love for teaching in the outdoors and a strong belief that experience in the outdoors would somehow benefit my students kept me going. In my eighth year of teaching, an opportunity knocked at my door. The MOE was planning to start an outdoor education unit and asked if I was interested in being a member of the pioneer team. I thought long and hard and I could not say no. I thought that I could finally do something great in my life. In 1999, five of us<sup>4</sup> started the new outdoor education unit in the MOE and I have been with the unit ever since. Over the years, I have seen how the unit has evolved, from one that was predominantly focused on the management of adventure centres and camping

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<sup>3</sup> An island that has been left relatively undeveloped, even until present times.

<sup>4</sup> Teachers from five different schools in Singapore.

programmes to one that is beginning to be more concerned with the broader possibilities of outdoor education.

A key turning point in my journey as an outdoor educator was a three-month attachment to Lakehead University in Thunder Bay, Canada, where I had the time and space to inquire and reflect on the “what,” “why” and “how” of outdoor education. More importantly, I began to sense the presence of the outdoor environment that I had taken for granted for so long. At Lakehead University, I felt the first real desire to understand the environment and how I am connected to it. I was consumed by an experience that was totally new to me. I realised that I had developed a relationship with the outdoor environment. Upon returning home, I enrolled in a part-time Masters programme to continue my exploration and understanding of outdoor education. In the meantime, I shared what I had experienced in Canada with teachers and colleagues in Singapore through professional development sessions.

In order to engage schools and teachers at a more personal level, I mooted the idea of a biennial outdoor education conference. After the first two conferences held in 2004 and 2006, I felt that more could be done to understand the purposes of outdoor education in the Singapore education system. Pursuing this research is a determination on my part to deepen my understanding of outdoor education in Singapore. I hope that this research might eventually benefit not only Singaporean students, but also Singapore, the land.

## **The Research Focus**

My research seeks to understand the purposes of outdoor education in Singapore through a naturalistic approach as initially described by Yvonna Lincoln and Egon Guba (1985). I emphasise the Singapore context here because sensitivity to context is a necessary aspect of understanding social settings. As David Erlandson et al. (1993) write:

Naturalistic inquiry is very dependent on context. This stems from its fundamental assumption that all the subjects of such an inquiry are bound together by a complex web of unique interrelationships that results in the mutual simultaneous shaping. This complex web of interrelationships provides a context that at one time both restricts and extends the applicability of the research. While full generalizability to other settings becomes impossible, the intricacy of the context that is revealed by naturalistic permits applications to interpersonal settings that are impossible with most studies that follow prevailing research strategies. (p. 16)

I used a case study to seek greater understanding of outdoor education in a particular school, namely Christ Church Secondary School in Singapore. The school is government-aided and is thus bound to comply with MOE policies and funding. Yet it also appeared to be unique in the way it implements its outdoor education programme. The school delivers the programme as part of the formal curriculum, unlike most schools. The emphasis on outdoor education in the school gave me the confidence to believe that the principal, staff and students were likely to be knowledgeable and informative about the phenomena I was investigating. Like Robert Stake (1995), I wanted to “appreciate the uniqueness and complexity of the case, its embeddedness and interaction within its contexts” (p. 16). From this perspective, I intended my case study of Christ Church Secondary School to serve a revelatory purpose, providing opportunities for me to observe and analyse phenomena that might be inaccessible to a more “scientific” investigation (Yin, 2006).

I conceived my case study as what Stake (2000) calls an instrumental case study. In an instrumental case study, a particular case is examined to provide insight into an issue or to redraw generalisations. According to Stake (1995), “issues are not simple and clean, but intricately wired to political, social, historical, and especially personal contexts” (p.17). The case is of secondary interest, it plays a supportive role, and it facilitates our understanding of something else. Thus, I use the insights drawn from my case study of Christ Church Secondary School’s outdoor education programme to further explore the potential educational purposes of outdoor

education in Singapore. The following key research questions were used to structure the observations, interviews and the analysis of data:

- Who and what shape outdoor education at Christ Church Secondary School?
- What are the desired and perceived outcomes of outdoor education at Christ Church Secondary School?
- In what ways do Singapore's social and educational policies influence outdoor education at Christ Church Secondary School?
- How might insights drawn from Christ Church Secondary School inform understandings of the purposes that outdoor education does, could and should serve in Singapore?

## **Limits of the Research**

This study is an instrumental case study of one secondary school in Singapore. Therefore, the findings and interpretations of this research are specific to this case study school. One limit of this research is that its findings cannot be generalised to other schools in Singapore.

Rob Walker (1983) describes case studies as “conservative” in much the same way that photographs are conservative. In Walker's opinion, a case study “captures an instant in time and space which can be held against a moving changing reality” (p. 163). Thus, I recognise that this study provides only a partial insight into the purposes of outdoor education as it is captured and interpreted at a particular time, place and under particular circumstances. Future research in the same school may not yield the same findings because the school may have different leadership, staff members and students.

Finally, my personal involvement as the researcher who is the primary instrument of data production and analysis limits my interpretations to those available to my own subjectivity and raises questions about adulteration and bias. These questions are addressed in greater detail in subsequent chapters.

## **Contribution to the Field**

Noel Gough (2007) points out that “what counts as ‘good’ research differs from place to place and changes over time, in response to (or in anticipation of) changed social and cultural circumstances and developments within research communities” (p. 14). Outdoor education research in Singapore has not given a “voice” to the people, spaces and places that shape our practices and/or programmes in outdoor education, which I will elaborate in chapter two. Neither have these research studies engaged with political agendas or issues that have shaped policies or budget allocations. I therefore see this study as a contribution to local research by venturing into new (for Singapore) ways of producing knowledge and challenging current values and assumptions that underpin the practices of outdoor education in schools. As I probed the Singapore context more deeply, I anticipated that new questions and issues would unfold. I was aware that my initial research questions were derived from *etic*<sup>5</sup> issues and might not fit the circumstances. I also anticipated that during the course of my study, *emic*<sup>6</sup> issues would emerge. They created opportunities for other ways of thinking about outdoor education in schools and its purposes in the Singapore education system.

Furthermore, the revelatory purpose of the case study embraces the constructed realities that constitute my knowledge as a researcher, the knowledge and efficacy of the stakeholders of this research and the larger society. It should have immediate relevance to teachers and policy-makers, and is itself educational because of my intent to inform.

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<sup>5</sup> *Etic* issues are the researcher’s issues, sometimes the issue of a larger research community, colleagues, writers.

<sup>6</sup> These are issues of the people who belong to the case.



Finally, I intend this research to encourage and incite professional discourse, which will eventually shape practice and policy. How can research contribute to professional discourse in such a way that it is readily understood and remembered? According to Michael Bassey (1999), one answer lies in how research is communicated to teachers and policy-makers. An essential feature of my research report is to make a claim to knowledge in the area of outdoor education in one Singapore school. This is not only critical in the contribution to the existing body of knowledge, but also in challenging existing theoretical ideas and assumptions. In due course, I hope to establish instrumental case study as a strategy for developing educational insights that will illuminate policy and practice in Singapore.

## **Navigating this Thesis**

In this initial chapter I have described my journey from growing up in Singapore to becoming a researcher in outdoor education. I have also outlined the research questions that frame this thesis and the contribution this study will make to the field of outdoor education.

In chapter two, I examine the mainstream outdoor education literature focusing on the issues and policies that influence outdoor education in Singapore. According to Stephen Ball (1998), policy analysis should not be focused exclusively on either micro- or macro- levels and I therefore need to consider the changing relationships between them and their interpenetration. An understanding of the Singapore education system through extensive literature review is necessary to contextualise the research. This is combined with interpretations based on my own experiences of working as a teacher in schools and as an outdoor education specialist in MOE for the past 15 years. I conclude with a theoretical interpretive framework, adapted from Biesta's (2009) conceptualisation of educational functions, that I will use to interpret the findings of this study.

In chapter three, I outline Lincoln and Guba's (1985) naturalistic approach that guides this research. It also provides a rationale for choosing a naturalistic

approach and for using a case study instrumentally to understand the purposes of outdoor education in the broader context of the Singapore education system and society.

Chapter four explains how I produced and analysed data with close reference to grounded theory methodology. In this chapter, I construct grounded theories from my past and present involvement and interactions with my participants and their perspectives.

Chapter five presents details of the outdoor education policy and curriculum in Christ Church Secondary School. I provide details about the camps, classes and trips as part of the fieldwork for this study. My experience as a teacher-aide in the school also constitutes part of the data I produced.

In chapter six, I examine the key research questions of this study. In accordance with a naturalistic approach, the production and analysis of data go hand-in-hand as grounded theories of outdoor education emerge from the case study.

In the final chapter, I discuss the implications of my findings. I examine the purposes of outdoor education in Singapore and conclude with propositions concerning the potentials and possibilities for outdoor education in the Singapore education system and society.

## Chapter Two:

### Literature Review

In this chapter, I review a selection of the scholarly literature of outdoor education with particular reference to debates around definitions of outdoor education and the philosophical foundations of the field. I also discuss the purposes and programme characteristics that various authors identify as contributing to educational outcomes in outdoor education. I then consider some recent calls to improve understanding of outdoor education through a broader range of research methods and research topics. I also consider the literature that situates outdoor education in Singapore society and education. I conclude this chapter by presenting a theoretical framework that I will use to interpret the findings of this study.

#### Outdoor Education: Definitions

Outdoor education is a conceptually diverse and heterogeneous field; as Andrew Brookes (2004) writes:

It is only necessary to skim the contemporary outdoor education literature to see that it contains multiple discourses, parallel conversations which, even on close reading, sometimes seem to have little in common. To the extent that nearly all contributions to the literature purport to be about outdoor education, these different strands can seem at cross-purposes. (p. 23)

There is little in the way of consensus about meanings of outdoor education (Boyes, 2000) and conceptions of outdoor education seem to be largely dependent on one's experience (Bunting, 2006) and location. There has been a proliferation of definitions which attempt either to capture some distinctive aspects of outdoor education or to be broad enough to encompass all aspects of the field (Zink, 2004). I will draw attention to a number of these that are often referred to in the literature. Phyllis Ford (1989) offers one of the most common definitions of outdoor education as "education in, for and about the outdoors" (p. 31). Although this definition implies that outdoor education is characterised by a particular *context* in

which learning takes place (“in... the outdoors”), a particular type of *purpose* for learning activities (“for... the outdoors”), and a particular *type* of knowledge to be learned (“about... the outdoors”), it is silent about the processes privileged in the field or the broader educational purposes of outdoor education.

James Neill (2004) cites 20 different definitions of outdoor education, but an initial scan of relevant international literature suggests that there may be many more. For instance, Simon Priest and Michael Gass (1997) list numerous terms and definitions commonly used in the field, ranging from *experiential learning*, *outdoor education*, *adventure education*, and *environmental education* to *recreation* and *outdoor pursuits*. Outdoor education in the United States of America (USA) is often identified with experiential education (Boyes, 2000). The USA-based Association for Experiential Education (2009) defines experiential education as a philosophy and methodology in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills and clarify values. In Australia, and particularly in the state of Victoria, Peter Martin (1995) suggests that there has been a gradual shift in outdoor education from personal and group development towards understanding humans and their relationship with the natural world. Thus, for example, Chris Bucknell and Andrew Mannion (2006) – teachers of outdoor education in Victoria - define outdoor education as a subject that develops an understanding of the ways in which humans relate with natural environments.

In 1980, the New Zealand Department of Education adopted the term Education Outside the Classroom (EOTC) to emphasise that “much legitimate learning can take place outside the four walls of the classroom” (Stothart, 1998, p. 23). The EOTC is described as a broad range of activities that may include curriculum-related field studies, visits to industrial sites and other places of educational interest, together with adventure and the challenge of outdoor pursuits (Boyes, 2000). The National Association for Outdoor Education (NAOE) in the United Kingdom (UK), formed in 1970, defined outdoor education as a means of approaching educational objectives and it has been the definitional template

throughout NAOE's existence (Nicol, 2002a). This definition positions outdoor education as a teaching process, rather than as a distinct body of knowledge. This definition's emphasis on "means" implies that method, rather than content or outcomes, differentiates outdoor education from mainstream education (Nicol, 2002a).

Although the Ministry of Education (MOE) in Singapore adopted the NAOE definition when it established its outdoor education department in 1999, it has not necessarily informed outdoor education practices in Singapore schools. In the case study school, Christ Church Secondary School, the outdoor education programme is organised within a framework known as Risk-based Adventure Curriculum for Excellence (RACE), which will be detailed in subsequent chapters. Beyond the case study school, outdoor activities such as kayaking, rock-climbing and sailing are readily associated with outdoor education in Singapore schools. This seems to suggest that outdoor education in Singapore schools tends to be equated with outdoor activities rather than a means of approaching various educational objectives, as the definition adopted by the MOE implies.

Therefore, I will neither delve further into semantic argument nor let the "debate over definition be at the expense of other areas of inquiry" (Nicol, 2002b, p. 96), of which deliberating about the educational purposes of outdoor education is my main focus.

## **Outdoor Education: Selection of Literature for Review**

Outdoor education in Singapore began four decades ago soon after the country gained its independence in 1965. In comparison with the USA, Canada, Australia, New Zealand, the UK and many other European countries, this is a relatively short history. In this chapter, I examine some of the philosophical and historical influences that have been instrumental in the formation of outdoor education in Singapore. One of the aims of examining this literature is to determine the purposes of outdoor education in the broader context of education and society. In this review,

I have selected the outdoor education texts that are frequently referenced and cited in educational books and journals, together with relevant policy documents from the Singapore government agencies and articles from the Singapore news media. However, research and scholarship in Singaporean outdoor education is still in its infancy. Among the research studies on outdoor education for Singaporean school children (e.g., Gassner & Russell, 2008; S. Ho, 2003; G. L. C. Ng, 2008; M. Tan, 2005; Tay, 2006; Wang, Ang, Teo-Koh, & Khalid, 2004; Wang, Liu, & Khalid, 2006), four are unpublished master's degree theses and the other three were narrowly focused on the psychological outcomes of OBS programmes. As such, reviews of the local outdoor education literature do not shed much light on the purposes of outdoor education in Singapore.

When selecting the texts on which to focus in this review, I began with those being used by fellow officers in the Singapore MOE in the planning of professional development courses for teachers. Much of the literature examined in this initial stage of the review focuses on the educational outcomes of outdoor education. I have intentionally omitted from this review texts dealing primarily with outdoor skills development, including outdoor pursuits skills, safety management skills and facilitation skills. I have also excluded literature on outdoor education as therapy and its use in "youths-at-risk" programmes, although there have been some initial plans by MOE in Singapore to use the outdoors to engage youths-at-risk in schools. My rationale for limiting the review in this way is both pragmatic and culturally linked. The pragmatic reason is that outdoor skills tend to be described, taught and enacted similarly worldwide, and thus are not a point of differentiation for Singaporean outdoor education. However, texts concerned with the achievement of personal development outcomes are situated in culturally-specific understandings of the individual and society. I have therefore chosen to focus on these texts in this review.

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<sup>7</sup> Refers to students who are at risk of becoming school drop-outs.

Much of the outdoor education literature used in Singapore originates in the USA, Canada and the UK, in part because a number of outdoor education teachers and other practitioners based in Singapore have been to the UK and USA and Canada for outdoor education courses, conferences and study tours over the past decade. Outdoor education concepts and practices from the UK, USA and Canada have been adopted somewhat uncritically by Singaporean outdoor educators in spite of Singapore's significant historical, geographical, social and cultural differences from these countries. In recent years, an increasing number of Singaporean educators have undertaken undergraduate and postgraduate study in Australia. The third MOE outdoor education conference held in 2008 also saw an increase in the number of overseas participants from Hong Kong, Malaysia and Indonesia. Such trends as these expose Singapore educators to more culturally diversified notions of what outdoor education entails and how it could/or should be taught.

Brookes (2004) argues that texts and literature reviews in outdoor education sometimes ignore contradictions in their discourse and overstate the importance of outdoor education. He points out that much of the outdoor education literature is based on an unquestioned assumption that outdoor education can offer learners more than other forms of education (Zink, 2004). Brookes (2004) thus concludes that an "outside" (p. 23) perspective is essential to understanding the educational potential of outdoor education. Therefore, I deliberately include and critique texts and literature reviews beyond the outdoor education field in order to provide a broader and balanced perspective.

## **Outdoor Education: Philosophical Foundations**

Philosophy has been described as "a pursuit of wisdom through a systematic inquiry into the nature and meaning of human life and the universe" (C. Tan, 2006c, p. 21). Based on this description, various philosophers have aligned themselves with particular schools of thought where each school provides their own "constitutive version of reality" (Nicol, 2003, p. 12). Educational philosophy originates from general philosophical systems and is the study of key philosophical

ideas that have influenced educational thought and developments globally. It is therefore important to look at the history of ideas in order to understand philosophy in a contemporary context and see how these ideas have shaped dominant thought patterns today (Nicol, 2003). In the next section, I examine some of the key ideas around the different educational ideologies that have provided a philosophical underpinning for outdoor education.

The philosophical roots of outdoor education can be traced to the educational philosophy of idealism, which is one of the oldest educational philosophies in the Western world, expounded by Socrates and Plato in Ancient Greece. Other proponents include Rene Descartes, Immanuel Kant, Ralph Waldo Emerson and Henry David Thoreau. Idealism advocates that the aim of education is to develop the intellectual capacity of the student (C. Tan, 2006c) and that the subjects should be taught with an emphasis on abstract principles, holistic learning and interdisciplinary approaches. According to Robyn Zink (2004), two key ideas of Socrates have contributed to the development of outdoor education. Firstly, Socrates argued that students should be active participants in their education, and that the process of becoming educated is more important than its product (such as a transcendental conception of what an “educated person” might be). Secondly, Socrates thought that the best way for a student to be educated was through direct experience.

Although idealists see reality as residing in true ideas, pragmatists argue that reality is always changing and is dependent on what we observe and experience (C. Tan, 2006c). In this respect, John Dewey’s writings, which significantly influenced the progressive education movement in the USA, are also pertinent to outdoor education. Charlene Tan (2006c) describes progressivism as an American educational philosophy devised to meet the educational needs and challenges of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. Progressivists wanted an alternative to the types of schooling that prevailed at that time which they thought to be too teacher-centred and rigid.



Dewey's (1916) germinal work, *Democracy and Education*, emphasises the place of experience in education (Itin, 1999) and his position on experiential education is elaborated in *Experience and Education* (Dewey, 1938). He argues that scientific method is the only means from which meaning can be produced, in particular, through experience. He also described "education as an important field where philosophical plans could be put to practice" (Phillips, 1970, p. 48). At the core of Dewey's thinking is an understanding that education is not simply the transmission of "facts" (propositional knowledge) but the education of the whole person for a democratic society (Itin, 1999). However, Dewey's (1938) belief that "all genuine education comes through experience does not mean that all experiences are genuinely or equally educative" (p. 25). It is not enough to insist upon the *necessity* of experience but the "*quality* of experience" (Dewey, 1938, p. 27; my italics) is also important. In particular, Dewey advocates experiences that enhance current practice and contribute to future learning.

Kurt Hahn, the founder of the Outward Bound movement, is another thinker whose ideas are foundational to contemporary outdoor education (Outward Bound International, 2004a) . Like Dewey, Hahn was concerned with the notion of democracy and the place of education in the process, both reflecting the ideology of the progressive education movement (Itin, 1999). Hahn was born in Germany and educated in both Germany and England. He set up his first school in 1920 at Salem in Germany but was later imprisoned for publicly criticising Adolf Hitler and opposing the Nazi regime. On his release, he emigrated to the UK where he established a school at Gordonstoun in Scotland in 1934 and the first Outward Bound School in Wales in 1941 (Zink, 2004). According to Lynn Cook (2001), the establishment of the progressive boys school in Gordonstoun was partly shaped by Hahn's experiences with the Abbotsholme school, a progressive public school established for boys by Cecil Reddie in 1889. Abbotsholme offered outdoor activities such as plunges from a high bridge into the River Dove, urged on by the headmaster standing with cane in hand. Reddie's emphasis on fresh air, daily exercise and healthy clothing was to instil a simple life because he believed that luxury would lead to moral and physical decay.

In Hahn's view, "post-industrial lives were becoming devoid of the inoculative, resilience-enhancing challenges which had been an everyday part of pre-industrial lives" (Neill & Dias, 2001, p. 36). Hahn was one of the first writers to articulate a concern with the state of decline in young people. These social ills described by Hahn are as follows:

- The decline in fitness due to modern methods of locomotion;
- The decline of initiative and enterprise due to the widespread disease of spectatoritis;
- The decline of memory and imagination due to the confused restlessness of modern life;
- The decline of skill and care due to the weakened tradition of craftsmanship;
- The decline of self-discipline due to the ever-present availability of stimulants and tranquilizers; and
- The decline of compassion due to the unseemly haste with which modern life is conducted. (Outward Bound International, 2004a)

In some ways, Hahn's views exemplify the crisis narratives that characterise many aspects of Western society, especially in relation to the development and behaviours of young people (Zink, 2004). Hahn believed that it is the task of education to help the young achieve a balance in their inner lives. He also argued that adventure appeals to young people and that such challenging experiences develop character, leadership and team building. Hahn used adventure education to test physical limits and to build strong minds. He also structured and controlled the students' activities to promote "proper" social behaviour and citizenship. He sought to develop young people whose convictions would be rooted in personal responsibility, kindness and justice (Outward Bound International, 2004b). Hahn's philosophy continues to influence practices in outdoor education and experiential education today. In addition to Salem, Gordonstoun and Outward Bound, Hahn's vision has inspired the development of other educational institutions such as United World Colleges that incorporate service learning as part of their curricula. School

achievement schemes such as the Duke of Edinburgh Award and Expeditionary Learning are also consequences of Hahn's work in the UK and USA respectively (Priest & Gass, 1997).

Paulo Freire's work is another influence on the philosophy of experiential education (Itin, 1999). Freire was a Brazilian educator whose theory of adult education was set within a larger framework of radical social change. For Freire, the educator engages in collaborative dialogue about concrete situations with the student. The action of education includes reflection. Therefore, in Freire's view, education is about the content, the process and consequences for the person within their social context (Itin, 1999). He was concerned with the ethical implications of education, particularly those associated with the teacher's domination of the educational process. Although Freire's ideas are mostly cited in the literature of radical or critical pedagogical thought, his ideas on education are consistent with Dewey's and Hahn's. All three stress the importance of increasing the capabilities of individuals to participate in the democratic process. They emphasise students' understanding of the subject matter within experience and are concerned with the purposeful process of actively engaging students in experience. Last but not least, each of them raises issues about changing the power relationships between students and teachers (Itin, 1999).

Drawing upon the consolidated ideas of Dewey, Hahn and Freire, Christian Itin (1999) presents the Diamond model of the philosophy of experiential education, where it makes clear that "the relationship between teacher and student is transactive" (p. 95). In a transactive model, teachers and students not only interact, but they exchange knowledge. In addition, students not only learn from the environment, they also affect or change the environment. The environment includes not only the immediate context but also the larger socio-political-economic systems, and any other system that impacts on the teaching-learning process. Itin's (1999) philosophy of experiential education does not advocate a particular method of teaching. He argues for experiential education to be considered as a philosophy

of education to allow for much broader discussions and ways of thinking about its educational process.

My review of the outdoor education literature suggests that identifying a philosophical framework for outdoor education practice is problematic. Most of the philosophical ideas and writings that have a bearing on contemporary outdoor education seem to be drawn from philosophies of experiential education that have their roots in the philosophies and ideologies of educators such as Dewey, Hahn and Freire. However, there is no distinctive outdoor education philosophy in the education literature and, as Robbie Nicol (2002b) asserts, “much of outdoor education philosophy has grown out of accepted practice and it often lacks clarity and purpose” (p. 5). What appears to be more evident is a philosophy around experiential education. Pip Lynch (2003) suggests that outdoor education is identified as being part of the field of experiential education, whereas other researchers such as Anne Lindsay and Alan Ewert (1999) believe that “the foundations of experiential education share a common philosophical base with both outdoor education and Progressive education movement” (p. 13). Mark Rickinson et al. (2004) assert that there has been a more sustained theoretical exploration of the history and philosophy of outdoor education within the range of research that has been carried out in the 1990s and 2000s, but do not support this assertion with unequivocal evidence. Apart from stating that “there is evidence of the emergence of more critical explorations of the conceptual and theoretical aspects of outdoor education” (p. 17), there is no discussion of the philosophy of outdoor education in the 57-page research review.

The lack of a distinctive outdoor education philosophy gives rise to questions such as “Whether outdoor experiences can or do uniquely fulfil any essential educational purpose?” (Brookes, 2004, p. 22) and “What would a philosophy of outdoor education look like?” (Nicol, 2002b, p. 97; 2003, p. 12). Nicol (2002b) points out that outdoor education’s lack of a coherent philosophical underpinning resulted in confused practices in the UK. Further to this, Alison Lugg (2004) notes that the outdoor activities Nicol (2002b) identifies as commonly used in outdoor education

in the UK have probably shaped those used in Australia, despite the obvious differences in geography, climate and environment between the two countries. Like Australia, most of the outdoor education programmes and activities adopted in Singapore were developed in the UK and the USA. Hence, the lack of an outdoor education philosophy raises questions about outdoor education's relevance to particular contexts.

## **Outdoor Education: The Principle of Challenge by Choice**

In this section, I discuss the principle of challenge by choice commonly used in outdoor and adventure education settings. This is because the case study school has adopted the principle of challenge by choice to guide the delivery of its outdoor education programme.

Challenge by choice evolved through the early efforts to transplant Outward Bound's "impelling into challenge" into the urban educational setting of Project Adventure<sup>8</sup> (Neill, n.d.). Karl Rohnke, an ex-Outward Bound staff member and co-founder of Project Adventure, coined the term "challenge by choice" because he found urban youth resistant to participating in adventure activities within the school setting. Rohnke (2000) emphasises that the central idea is to encourage students to try new things so that if the student does not like the suggested activity, then giving him or her alternative challenges is the next step. Neill (n.d.) subsequently depicts the various emphases on extent of participant choice in the continuum shown in Figure 1. The continuum shown in Figure 1 illustrates how facilitators can alter their style in relation to their participants' engagement with challenges. Sarabjit Singh Wallia (2008) points out that challenge by choice is on the far left of the continuum and that it is here that the facilitator takes on an abdicratic role (Priest & Gass, 2005) in helping participants engage with challenges.

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<sup>8</sup> American-based non-profit organisation that provides adventure-based programmes.

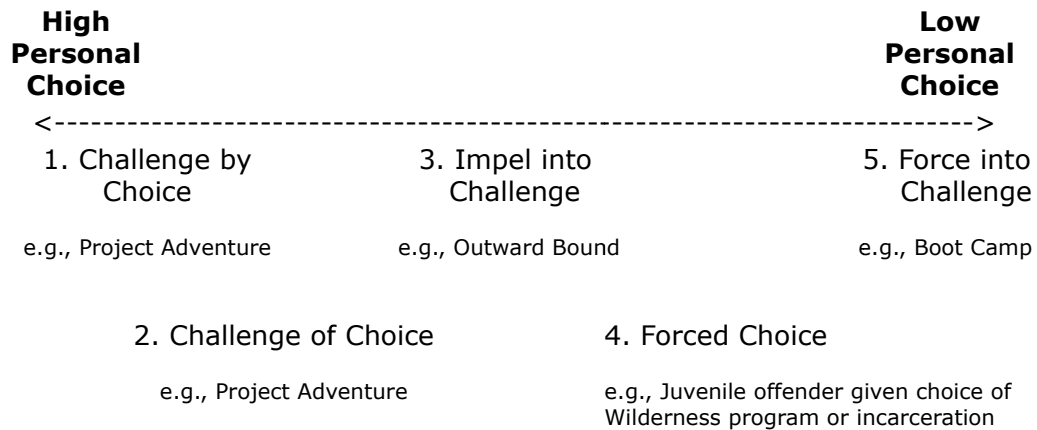


Figure 1. Continuum depicting adventure programme philosophy about the degree of individual choice in participation (Neill, n. d.).

Currently, the use of challenge by choice principles has stretched beyond Project Adventure and is commonly used in ropes challenge courses, group initiatives and adventure therapy programmes (Neill, n. d.). Challenge by choice is an important principle in Adventure Based Counselling (ABC) and its principle of the Full Value Contract (FVC). The concept of ABC “stems from experiential education and has existed in the United States since Hahn introduced his concepts to OB” (T. James, 1980 cited in Fletcher & Hinkle, 2002, p. 278). Full Value Contract (FVC) refers to an important principle in ABC. Since ABC is almost always group-based and relies on people exposing themselves to perceived physical, emotional and social risks (Neill, n. d.), the idea behind FVC is to create an environment conducive for participants to feel safe to be themselves. There are many ways to create a FVC, but usually the group and facilitator discuss the objectives of the programme and then go on to identify what the participants as individuals and as a group need to do to be successful (Wallia, 2008).

The principle of challenge by choice can be problematic, as pointed out by Neill (n. d.) and Wallia (2008). Neill (n. d.) argues that challenge by choice is a principle that appears simple, but is complex in reality and practice. Wallia (2008) agrees with Neill (n. d.) and further asserts that the principle of challenge by choice is often

“incorrectly defined or over-simplified” (p. 3) by facilitators. As there is no defined way of applying this principle, coupled with the scarcity of scholarly literature on this principle, challenge by choice has been subjected to different interpretations by facilitators. Some facilitators and participants even construe the principle as an “exit strategy” for those who do not wish to participate in an activity.

In essence, challenge by choice is not about having the choice to opt out but rather, having the choice to decide how to go about completing a task. This principle becomes problematic in my research because my case study school hailed it as the philosophy behind its outdoor education programme. The review of the literature on this principle informs the challenges and issues that the case study school faces, which I will elaborate in chapter six.

## **Outdoor Education: Characteristics and Outcomes**

In this section, I review the characteristics and outcomes of outdoor education as these relate to the possibilities and potentials for outdoor education in Singapore. These possibilities and potentials will be determined in part by outdoor education’s historical roots and shaped by local and global educational and environmental imperatives.

Programme outcomes have been described in quantitative and qualitative terms in a number of meta-analyses (e.g., Cason & Gillis, 1994; Hans, 2000; Hattie, Marsh, Neill, & Richards, 1997) and reviews (e.g., Barrett & Greenaway, 1995; McKenzie, 2000; Rickinson, et al., 2004). In the realm of quantitative research, meta-analyses of outdoor education programmes are one approach to the statistical synthesis of previous studies. They present results in terms of effect sizes (ES) that measure the difference between people’s rating of themselves at two different points in time. The meta-analyses by Dana Cason and Lee Gillis (1994), Tracy Hans (2000) and John Hattie et al. (1997) found small to moderate overall effect on variables such as self-concept and social skills. Cason and Gillis’ study was the first meta-analysis of adventure programmes. In their review of 43 outdoor adventure programmes

involving adolescents, they report an average ES of .31. They also found that longer programmes resulted in more significant effects on self-concept. However, their work was based on Outward Bound programmes. Thus, comparison with programmes in other contexts, such as school programmes may not be appropriate or relevant (Zink, 2004).

John Hattie et al. (1997) reported an ES of .26 on self-esteem in adventure programmes, which exceeded that of other educational programmes. From their meta-analysis of 96 studies, they conclude that the major benefits of outdoor education programmes were across six categories: leadership, self-concept, academic, personality, interpersonal, and adventuresomeness. They also identify the common features of outdoor education programmes as: a) backcountry or wilderness settings, b) a small group, c) assignment of a variety of mentally and/or physically challenging objectives, d) frequent and intense interactions that usually involve group problem-solving and decision-making, e) a non-intrusive trained leader and g) programme length. They conclude that the majority of the studies in the meta-analysis focus on the positive outcomes of outdoor education and tend to ignore contrary evidence.

Tracy Hans' (2000) meta-analysis attempts to replicate the ES of .30 generated within the meta-analyses of Cason and Gillis (1994) and Hattie et al. (1997). However, a slightly higher ES of .38 was computed. Hans' meta-analysis includes 24 programmes conducted either in the USA or Australia between 1972 and 1995. The study found two significant influences in moderating locus of control. Firstly, programmes which focused on therapeutic goals yielded higher ES than programmes with recreational aims. Secondly, residential and semi-residential programmes were more effective than day programmes that utilised adventure activities but did not take participants away from their familiar environments overnight.

Although meta-analyses shed some light on the types of programmes that produce the greatest changes in participants, they fail to explain the variation in outcomes



(Neill & Richards, 1998). Meta-analyses can also be interpreted as using research to demonstrate the effectiveness of what has already been done. They do not take into consideration the rigour or quality of the individual studies used in the meta-analyses. Moreover, they are constrained by the choices of variables investigated within the original studies. Hence, quantitative meta-analysis may not be the most effective means of determining the extent of the programme outcomes.

Jon Barrett's and Roger Greenaway's (1995) review of outdoor education research and theory literature remains one of the most comprehensive reviews of the role and value of outdoor adventure in young people's personal and social development. The review includes a critique of research on outdoor adventure for young people's personal and social development. With respect to research outside the UK, Barrett and Greenaway (1995) identify the following weaknesses:

- little attention is given to young people's own accounts and perspectives
- much research is of a one-off nature and there is a dearth of coordinated research programs
- identified outcomes are assumed to be caused by the adventure ingredient of outdoor adventure with a consequent failure to recognize the significance of other ingredients
- much of the research cannot be generalized to other situations because it is focused on specific programs
- there is a lack of long-term studies
- there is an absence of research examining the failure of particular outdoor adventure experiences
- there is a gap between practice and research, with a tendency among researchers to write for an academic audience
- many studies are flawed by low questionnaire return rates, small sample sizes, a lack of basic contextual or statistical information, or an absence of suitable control or comparison groups. (p. 53)

In addition, Barrett and Greenaway (1995) attempt to account for the multi-dimensional, interactive nature of the various aspects of outdoor education. Some of the characteristics include: the group, the staff, the environment, the activity, the programme philosophy and other factors. Similar programme characteristics such as the physical environment, the activities, the group and the instructors are also cited by Marcia McKenzie (2000) in her review.

Rickinson et al. (2004), under the sponsorship of a national education agency in the UK, conducted a comprehensive review of 150 outdoor learning research studies between 1993 and 2003. Among the strengths of this review are the inclusion of international literature and a diverse conceptualisation of outdoor learning that includes fieldwork, outdoor adventure and school grounds or community programmes. However, it should be noted that the purpose of the study was to review research on field studies rather than on outdoor education as such and that the expertise of the researchers was chiefly in field studies and environmental education. This might explain the omission of significant outdoor education research studies and texts, including Barrett's and Greenaway's (1995) review. Nevertheless, Rickinson et al.'s review provides clear endorsement for certain kinds of outdoor learning provision, in particular, programmes which:

- provide longer, more sustained outdoor experience programs
- incorporate well-designed preparatory and follow-up work
- use a range of carefully-structured learning activities and assessments linked to the school curriculum
- recognise and emphasise the role of facilitation in the learning process
- develop close links between programme aims and programme practices. (p. 52)

Although quantitative research studies and meta-analyses can provide some evidence of programme outcomes, they are necessarily partial and incomplete. Gert Biesta (2009) points out two problems with making decisions in education based solely upon evidence of programme effects or outcomes. One is what he calls the

“is-ought problem” (p. 35): when making decisions about education, “what ought to be done can never be logically *derived* from what is” (p. 35; italics in original). The second problem Biesta identifies is the “*normative validity* of our measurements” (p. 35; italics in original), that is, the question of “whether we are indeed measuring what we value or whether we are just measuring what we can easily measure and thus end up valuing what we (can) measure” (p. 35). He elaborates that effectiveness is a value that says something about the quality of processes but whether the outcomes are desirable is an entirely different matter – a matter for which we need value-based judgements that are informed by “*ultimate values*: values about the aims and purposes of education” (p. 35; italics in original).

## **Outdoor Education: Purposes and Functions**

In this section, I discuss some of the purposes and functions of outdoor education in the outdoor education and related literature. I use Biesta’s (2009) conceptual framework (detailed below) as a guide to my deliberations on the purposes and functions of outdoor education.

### **Purposes of education: A conceptual framework**

Biesta (2009) argues that the question of purpose is a composite question and that in deliberating about the purpose of education, one should make a distinction between three functions of education, namely, *qualification*, *socialisation* and *subjectification*. He asserts that one of the three functions of education lies in the qualification of our students, providing them with the knowledge, skills and understanding to “do something” which can range from the very specific (eg., training for a particular job) to the much more general (eg., teaching of life skills). Biesta (2009) refers to the second function of education as the socialisation function that has to do with the many ways in which, through education, we become members of and part of particular social, cultural and political “orders”. Biesta argues that education does not only contribute to qualification and socialisation but also impacts on processes of third function, subjectification. He explains that the function of subjectification might be best understood as the

opposite of the socialisation function, which is about “ways of being in which the individual is not simply a ‘specimen’ of a more encompassing order” (p. 40).

### **Functions of outdoor education**

Kurt Hahn’s philosophy seems to have been pivotal in transforming the character building movements in outdoor education from their militaristic, nationalistic and imperialistic roots (Brookes, 2003b). In the early years of the 20<sup>th</sup> century, fitness for war and service in the British Empire, especially in nations allied with Britain during World War I (WWI), underpinned the uses of the outdoors for educational purposes for boys (Cook, 2001). Subsequently, progressive educationists, in reacting against militarism and blind obedience to duty, considered the development of initiative and self-discipline to be the basis of character building. Brookes (2003b) argues that the aim of character building, although persistent in outdoor education literature and programmes, is a flawed and uncontested concept. Brookes (2003a) coined the phrase “neo-Hahnian outdoor education” to describe approaches based on the assumption that adventure experiences “build character” or “develop persons”. He argues that in the absence of any strong evidence that outdoor experiences can change personal traits and that neo-Hahnian outdoor education should not be considered “foundational” to outdoor education research, theory and practice.

This persistence of a neo-Hahnian approach to outdoor education seems most pervasive in the USA (Brookes, 2003b). Two influential scholars in the US adventure education field, Priest and Gass (1997), conceptualise four main purposes of adventure programmes. They argue that recreational programmes aim to change the way people feel; educational programmes aim to change the way people feel and think; developmental programmes aim to change the way people feel, think and behave; and therapeutic programmes aim to change the way people feel, think, behave and resist. Although Priest and Gass (1997) categorise various types of programmes under these broad aims, they do not elaborate on the specific purposes of the changes expected of the participants.

Chris Loynes' (2002) criticises US experiential educators for adopting a highly structured approach towards outdoor education programmes and proposes 12 characteristics of an emerging generative paradigm for outdoor experiential learning. One of his proposals is to restore "place as a central and critical dimension of equal value for learning and meaning as the self and the group" (p. 123). Responses to Loynes' critique include two linked articles (e.g., Baker, 2005; Knapp, 2005) that outline the emerging field of place-based education and offer suggestions on incorporating place-based education into adventure programmes. Molly Baker (2005) cautions that the pull of modernity will continue to disconnect us from the land with greater force in the future and argues that "striving to actively engage students with places is a sure step towards creating a collective connection to landscapes and a more sustainable future" (p. 276).

Neo-Hahnian outdoor education remains a pervasive influence on the field in many places. For example, outdoor education in Scotland has its origins in Hahn's philosophy (Higgins, 2002), being one of the first countries in the world to formalise outdoor education. The initial emphasis on physical fitness, endurance, craftsmanship and community service have been translated into contemporary terms such as the pursuit of "outdoor activities and sports" and "personal and social education" (Higgins, 2002, p. 155). Such approaches are now widely adopted by the majority of the outdoor service providers in the UK. However, Peter Higgins (2002) cites the World Summits (eg., Rio in 1992 and Kyoto in 1997) as global environmental imperatives that have influenced outdoor educational practices in the UK, which now include addressing environmental concerns. Higgins also notes that the educational uses of the outdoors are similar in Scotland to other parts of the UK, Europe, and countries further afield. For example, prior to the 1940s, outdoor education in New Zealand was primarily recreational but has since become more explicitly educational in its intent. Robyn Zink and Michael Boyes observe that, since the 1970s, outdoor education has also become more focused on developing the skills and values associated with employability. It was not until 1999 that outdoor education gained an official place in the NZ curriculum. It became one of seven key learning areas in Health and Physical Education

curriculum aiming specifically to provide students with opportunities to develop personal and social skills, to become active, safe and skilled in the outdoors, and to protect and care for the environment (Zink & Boyes, 2006).

Considering that the aims of outdoor education have shifted over time within the broader context of changes in the education system (Zink & Boyes, 2006), “a focus on outdoor pursuits and adventure education with the aims of personal development appears to have been an enduring phenomenon in the history of outdoor education in New Zealand” (P. Lynch, 2006 cited in Cosgriff, 2008, p. 20). Marg Cosgriff (2008) suggests that this emphasis on neo-Hahnian personal development outcomes has served to keep outdoor pursuits and adventure activities dominating many school programmes in New Zealand, despite “the need to foster environmental appreciation, understanding and action” (p. 14). She argues for a more “environmentally attuned” outdoor education as a relevant way forward in New Zealand schools central to which “are ‘skill-full’ adventures that foster students’ connectedness with local environments, help develop sustainable human-nature relationships, and promote orientation towards action” (p.23).

According to research by Alison Lugg and Peter Martin (2001), most outdoor education teachers in schools in Victoria, Australia, perceive outdoor education to be predominantly focused on personal development. Lugg and Martin suggest that outdoor education teachers who would prefer the subject to develop more distinctive educational purposes (such as pursuing environmental education through outdoor activities) face a number of difficulties in establishing and implementing such programmes in schools: a) the majority of principals (as well as teachers) saw the value of outdoor education as primarily being related to its personal development objectives; b) there was greater emphasis on outdoor education as a process rather than content; c) people teaching the subject had qualifications in disciplines other than outdoor education. Alternatives to traditional outdoor adventure activities have also been suggested by other scholars (eg., Payne & Wattchow, 2008; Stewart, 2003) who see outdoor education as having a role to play in helping participants to develop strong connections with local places via

“slow” outdoor education that allows participants time to pay attention to the unique qualities of particular places.

During the last decade, the relationship between outdoor education and environmental education has been a topic of debate and discussion in Australia (Lugg, 2004). For example, Bucknell and Mannion (2006) argue that it is within the broad environmental goals that outdoor education might be able to claim a unique place in contemporary curricula. They advocate a new focus in the outdoor education curricula to prepare students to deal with a range of complex environmental issues. Neill (2001) also notes that delegates to a national outdoor education conference in Australia proposed the following statement of ethical purpose to emphasise a broad, underlying aim of outdoor education in Australia:

Through interaction with the natural world, outdoor education aims to develop an understanding of our relationships with the environment, others and ourselves. The ultimate goal of outdoor education is to contribute towards a sustainable community. (p. 2)

This statement is aligned to Martin’s (1999) concept of critical outdoor education, according to which the key purpose of outdoor education is to help students develop a critical perspective on understanding people’s relationship in and with the outdoors. Outdoor education can therefore have a primary function in educating for environmentally sustainable living by focusing on cultural beliefs and practices that are perpetuating the current ecological crisis (Boyes, 2000). Although sustainability is a keyword in today’s environmental studies, problems of sustainability differ from place to place. Hence, a new focus on sustainability in outdoor education curricula might help students to engage with these issues in their society. In order to do so, Ken Webster (2004) argues that educators need to be up-to-date with new knowledge, especially about design and technology, systems and economics and how they are intertwined.

A scan of the literature on purposes and functions of outdoor education in various countries reveals that they have expanded beyond neo-Hahnian personal

development to include environmental education dimensions. A range of practice-based possibilities in the literature provide a way forward for thinking about how to reconfigure outdoor education in the light of increasingly pressing social, political and environmental imperatives. These include the possibilities offered by place-based approaches (e.g., Brown, 2008; Payne & Wattchow, 2008; Stewart, 2003, 2004; Wattchow, 2001); approaches addressing sustainability and ecological literacy within outdoor education (e.g., Higgins, 1996; Lugg, 2007; Martin, 2008; Martin & Ho, 2009; Orr, 1992); and critical outdoor education (e.g., Hill, 2008; Martin, 1999; Payne, 2002).

I have adapted Biesta's (2009) conceptual framework for differentiating purposes and functions of outdoor education. Biesta's qualification function best describes NZ's outdoor education in developing the skills and values associated with employability in the 1970s. Biesta's socialisation function fits the emphasis on personal and social education widely adopted by the majority of the outdoor service providers in the UK. Critical outdoor education that helps students develop a critical perspective on understanding people's relationship in and with the outdoors exemplifies Biesta's subjectification function.

Just as political literacy can be a socialisation function from his framework, Biesta contends that a strong focus on socialisation into a particular citizenship order can lead to resistance, which in itself can be taken as subjectification. In the same vein, some neo-Hahnian approaches to outdoor education where they emphasise Hahn's first expeditionary learning principle (primacy of self-discovery) fits Biesta's category of subjectification function. On the contrary, other neo-Hahnian outdoor education approaches that may be more concerned with building a particular kind of socially desirable "character" might, therefore, be better understood as part of Biesta's socialisation function. In essence, Biesta's idea is not for us to confine education to only one specific function, but rather, a spectrum of foci to education. Therefore, in the context of outdoor education, it is important to know its purposes depending on its focus on qualification, socialisation or subjectification functions. From the examples above, I recognise that I cannot produce one universal map of



the purposes and functions of outdoor education as meanings of outdoor education are proposed as social constructions, specific to time, place and ideologies of the proponents (see Boyes, 2000; Martin, 1998).

Similarly, Brookes (2002), Nicol (2002a) and Zink (2004) caution that the search for universal meaning may deny the often unique features of particular programmes in outdoor education. I agree with that and add that perhaps these conceptualisations are derived beyond ideologies in the educational arena. In highlighting a number of “blank spots and blind spots” (Wagner, 1993, p. 16) of outdoor education research in the UK, Rickinson et al. (2004) conclude that outdoor education research would benefit from greater attention given to the “historical and political aspects of outdoor education policy and curricula” (p. 57). Brookes (2003b) further emphasises that when exploring the purposes of outdoor education, it is essential to look at outdoor education’s connection with its past. Therefore, as a means to rightly situate outdoor education as a contributor to education and society in a complex milieu, I recount the Singapore story in this segment of the chapter. This historical overview seeks to highlight some key traditions and values that may have influenced and shaped the outdoor education practice, provision and development in Singapore.

## **Singapore: A Nation Born in Crisis**

Singapore is an island nation located at the southern tip of the Malay Peninsula. At 704.0 km<sup>2</sup> (Singapore Statistics, 2007), it is one of the few remaining city-states in the world and the smallest country in Southeast Asia. It is highly urbanised with an overall population density of just over 7,000 persons per square kilometre (Horsky & Chew, 2004). Like many countries in Southeast Asia, Singapore endured a long period of European colonial rule (British in Singapore’s case) and three and a half years of Japanese occupation during WW II (Neo & Chen, 2007).

Before 1819, the main settlement of what we now call Singapore was a Malay fishing village occupied by the indigenous Orang Laut<sup>9</sup> people, several hundreds of whom lived around the coast, rivers and small islands in its vicinity. After British colonisation in 1819, Singapore became an expedient port of call for British mercantile ships on their trips between India and China. Its strategic geographical location and rapid economic growth, attracted many immigrants, mainly Chinese from southern China. In 1823, Englishman Sir Stamford Raffles (1781-1826) drafted Singapore's constitution, which outlawed slavery and gaming. His political foresight and multicultural views shaped and paved the way for the judiciary system and the cultural diversity that are features of contemporary Singapore.

Japanese forces occupied Singapore in 1942 and, as Mr Lee Kuan Yew (1998) recounts, "the uncertainty, the daily grind and the misery of the Japanese occupation was to be the lot of the people of Singapore for the next three and a half years" (p. 58). With the end of WW II, Singapore reverted to British rule in 1945. It achieved independence from Britain in 1959 and as a former British colony, became part of the British Commonwealth (Horsky & Chew, 2004). It then merged with Malaya, Sabah and Sarawak to form Malaysia in 1963. However, within two years, it was expelled due to ideological differences and became an independent republic on 9 August 1965 (Lau, 2005).

### **Struggle for survival**

According to Neo Boon Siong and Geraldine Chen (2007), the circumstances of Singapore's independence were less than auspicious, having been unceremoniously ejected from the Malaysian Federation. Its independence implied not only the need for new national values but also survival as a nation – politically, economically and socially. On the political front, the impending withdrawal of the British military forces from Singapore, the confrontation with President Sukarno of Indonesia and conflicts with other Malaysian leaders after Singapore's separation from Malaysia, served to emphasise the island's vulnerability and the urgent need to strengthen its

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<sup>9</sup> A group of Malay people living in the Riau Islands of Indonesia.

survival capacity in all aspects (Yip, Eng, & Yap, 1994). Economically, much had to be done to strengthen the capacity of a sovereign nation of just over two million immigrants who had lived through a tumultuous decade of war, racial and religious conflict. Singapore has no natural resources; it imports half of its water, most of its food and all of its fuel (Horsky & Chew, 2004). Beyond its strategic location, its multi-racial and multi-religious population presented a constant source of potential social instability. This social tension was compounded by a rising unemployment rate of 14 percent upon independence (K. Y. Lee, 2000). The Prime Minister at that time, Lee Kuan Yew<sup>10</sup> took stock of what was required for Singapore to survive:

I concluded an island city-state in Southeast Asia could not be ordinary if it was to survive. We had to make extraordinary efforts to become a tightly knit, rugged and adaptable people who could do things better and cheaper than our neighbours, because they wanted to bypass us and render obsolete our role as the entrepôt and middleman for the trade of the region. We had to be different. (K. Y. Lee, 2000, p. 24)

Hence, openness to the rest of the world was not a choice but a necessity. The trauma of separation and the subsequent struggle for economic survival “fostered a deep sense of vulnerability, and recognition of its dependency on developments in the global economic and security environment” (Neo & Chen, 2007, p. 27). Singapore’s lack of natural resources impelled its leaders to focus on its people as the nation’s main asset. Its political leaders concluded that, to survive, Singapore had to be tougher, more disciplined, better organised and more nimble than other countries. Singapore’s survival as a nation was predicated on economic survival. The circumstances of its independence created two underlying strategic imperatives that have remained to this day: economic development and domestic stability.

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<sup>10</sup> Currently holding the position of Minister Mentor in the ruling party, PAP.

## **Economic development**

The results of the government's economic policies and strategies are evident in its economic accomplishments over a relatively short period of time. In the last four decades, Singapore has experienced extremely rapid economic development, with an eightfold increase in wealth (Horsky & Chew, 2004). The standard of living is high and in terms of Gross Domestic Product (GDP) Singapore is equal to that of the leading nations of Western Europe (CIA, 2007). The rapid shift from third to first world economy has largely come from powerful governance of the ruling People's Action Party (PAP). It led the parliament since independence (Lau, 2005). The political longevity is largely premised on the PAP's ability to deliver economic goods. A significant outcome of the ruling party dominance has been a strong future orientation and long-term perspective in policy-making. One of the implications is that the values and principles of the founding generation of leaders have left a large imprint and continue to shape the ethos of the Singapore government (Neo & Chen, 2007).

It is obvious that the government has concentrated its efforts in creating one of its two underlying strategic imperatives; that of economic growth. The main task of the state was to provide an urban environment of high standard and quality that would attract international investors and tourists. A majority of the population has been relocated to high-rise public housing that has been developed with the view of providing affordable housing to the largest number of people in the shortest possible time. These public housing neighbourhoods are relatively self-contained so that residents can meet most of their daily goods and services within the estates they live in.

However, modern nationhood means more than economic growth; the state would have to mount efforts to forge a common identity. The building of a strong national identity did not parallel the economic growth and the modernisation of the city. Much of the planning of Singapore has been in the hands of the state and the government. In Ooi Giok Ling's and Brian Shaw's (2004) view, this has placed

Singaporeans in a quandary, being generally “detached from the decision-making process which shapes their city, hence, urban as well as national identity” (p. 44). This lack of wider participation in policy decision-making deserves notable attention because it is the one important aspect of Westernisation that has not taken shape in Singapore. While Singapore has embraced many of the developmental norms of the West, there has been greater wariness about adoption of Western-style liberal democracy as well as institutions like social welfare structure (Ooi & Shaw, 2004). The then Prime Minister, Lee Kuan Yew has had serious reservations about Western liberalism. In his view, Western liberalism places too much emphasis on individualism that may have harmful consequences for the society (S.-H. Liu, 2007). In fact, the government grew increasingly apprehensive of the dangers of Singaporeans losing their “Asian” roots and becoming a pseudo-Western society (Yeoh & Kong, 1996). However, in the 1990s, there was a significant change in the way Singapore related to the rest of the world. Its earlier rhetoric of Asian values gradually gave way to a more concerted effort to transform Singapore into a global city (Velayutham, 2007).

Pragmatism underpins most of the governance fundamentals in Singapore (Horsky & Chew, 2004). Going forward, this pragmatic approach to governance has the potential to be a weakness when issues become more complex (Neo & Chen, 2007). For instance, the effort to green Singapore was not for sustainability nor was the development of culture and the arts done solely for the sake of culture. Rather, it was to signal to the world that Singapore is a good place for foreign investment and that Singapore is a good potential home for talented individuals from anywhere in the world. The recent debate on the Integrated Resorts (IR), a proposal to boost the tourism industry in Singapore, is an illustration of the conflict between the pragmatic and the ideological.

The issue of the IR has been debated intensely, both among the public and within the government, because the IRs will also include casinos (Duffy, 2005). Indeed, the government’s lift of a 40-year ban on casinos in 2005 and its decision to allow for not one but two IRs became one of the most controversial stories that year (J.

Chua, 2006). According to Andrew Duffy (2005), Singaporeans were split on whether there should be a casino in Singapore. Besides those who were worried about the social ills that the casinos might bring, many were doubtful about the government's claim that casinos would boost the economy in Singapore (J. Chua, 2006). In consistently stressing pragmatic considerations as the basis for government policies, citizens too have imbibed this approach in their evaluation of the value of nationhood and quality of life; both necessary constituents of domestic stability.

### **Domestic stability**

On the issue of citizenship, political leaders have been confounded by the aspiration of many Singaporeans to migrate to other countries as far back as in the late 1980s. The government lamented the apparent lack of rootedness among its citizens (Neo & Chen, 2007). In 2002, then Prime Minister Goh Chok Tong<sup>11</sup>'s National Day Rally speech's reference to "stayers and quitters" (Chang, 2002, p. 28) rekindled the debate about emigration and the commitment of Singaporeans. The debate on this issue centred around categorising those who did not migrate as "stayers" and those who did as "quitters," with questionable loyalty to Singapore. Mr Goh Chok Tong's use of the labels to drive home the point about the need for Singaporeans not to wilt in the face of transient adversity became the talking point throughout the island. However, the larger issue of how to foster a deeper sense of belonging to the nation remained largely unresolved.

Neo and Chen (2007) have attributed the cause of this apparent absence of emotional attachment to the pragmatic approach that citizens adopt in their way of life. Their choice of where to live and which school to send their children to is bound by purely pragmatic considerations. Softer, more emotive issues such as identity with the country, the presence of family and friends, the concept of home, seem to matter less. This phenomenon, if not addressed, might pose a fundamental challenge to nation-building and ensuring the sustainability of the nation (Neo &

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<sup>11</sup> Currently holding the position of Senior Minister in the ruling party, PAP.

Chen, 2007). In particular, such a phenomenon raises questions about the purposes of outdoor education and its contribution, given the diversity of roles outdoor education has assumed in other countries.

How then do Singaporeans view their quality of life? The survival of Singapore is dependent on the ability of her people. Hence, it is critical that the incentive to achieve is maintained and the society has to be seen to reward hard work and enterprise. As a result, a merit-based system permeates all levels of Singapore society, including education, and is viewed as the most efficient way for talent deployment (Neo & Chen, 2007). The lack of natural resources amplifies the need to accumulate financial resources from economic growth in order to build a buffer for survival during lean years. Therefore, notions of good quality of life for Singaporeans have been strongly linked to materialism and wealth. Selvaraj Velayutham (2007) found in his recent research that Singaporeans spoke about their affective links with Singapore in practical and material terms and as such, this mode of belonging is highly individual-oriented. For instance, he felt that “the experience of home and belonging amongst Singaporeans is largely framed in the materiality and social modernity of everyday life in urban Singapore” (p. 170). This is hardly surprising as Singaporeans are known to value the ownership of the five Cs: cash, credit card, car, condominium and country club membership (Li, C. L. Goh, & Lin, 2006). To this end, many Singaporeans firmly believe that doing well in school will ultimately help them attain the five Cs. Driven by a strong “kiasu<sup>12</sup> syndrome” (Fang, 2005, p. 26), Singaporeans tend to chase the dream of upward social mobility through hard work and education.

Hence, it is against this backdrop of pragmatism that outdoor education in Singapore schools takes shape. Therefore, as illustrated in the ensuing chapters, schools may implement outdoor education not knowing its overall purpose, but rather to meet the policy guidelines regulated by the MOE. This will be discussed in greater depth in chapter six of this thesis.

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<sup>12</sup> A trait synonymous with the mentality of seizing opportunities.

## **Singapore Education: In the Service of Society**

A review of the ever-evolving educational landscape in Singapore shows that the education system has always been the handmaiden to the nation's twin-role of sustaining economic development and establishing a sense of national identity (Horsky & Chew, 2004). Singapore's astonishing transformation within a span of four decades, from a struggling post-colonial society plagued with problems of survival, to a politically stable and economically viable country is a success story to which few countries in the contemporary world can lay claim. A close examination of the ingredients that made for this success shows the pivotal role of education in the task of nation-building and in the fashioning of a vibrant economy.

Educational reforms reflect a society's unresolved conflicts and problems of the past, as well as foreshadow its hopes, concerns and visions of the future. Thus an understanding of the reforms and growth of the education system in the post-war period requires an understanding of the educational scenario and its context prior to Singapore's attainment of independence in 1965. (Yip, et al., 1994, p. 4)

The major thrusts of education in the period between 1946 and 1965 were to resolve some of the pressing conflicts and issues Singapore faced in the 1950s such as racial riots and high unemployment rates. Education is viewed as an indispensable ingredient of the nation, and the Singaporean education system is the vehicle for "social engineering" (Horsky & Chew, 2004, p. 246). Social engineering here refers to efforts to influence popular attitudes and social behaviour on a large scale. For instance, the government's policies attempt to promote a mix of all races within the school environment and the introduction of pledge-taking in schools are efforts to foster national cohesion and to instil national loyalty.

### **Education for all**

When Singapore gained independence in 1965, the urgency to strengthen its capacity to survive emphasised the need for education to continue its twin-role of



facilitating the nation's economic transformation and building a cohesive Singaporean society. While the government recognised the need for human resource development as a primary reason for educational investment, the inculcation of values were deemed necessary in creating the "new Singaporean" (Mortimore, et al., 2000, p. 7). Fundamental to the role and status of education in the Singapore society is the underlying view of the PAP, that education is a social change agent (Yip, et al., 1994). Soon after the country's independence in 1965, the Prime Minister at the time, Lee Kuan Yew, shared about his strong belief in the ability of education to reshape and restructure the Singapore society. He reiterated his views during his address to principals of Singapore schools:

The reflexes of group thinking must be built to ensure the survival of the community, not the survival of the individual; this means a re-orientation of emphasis and a reshuffling of values. Eventually, we must produce the kind of men and women who can run this tightly-knit society and who have the determination to do it. We must have the qualities of leadership at the top, and qualities of cohesion on the ground. (K. Y. Lee, 1966, p. 9)

Therefore, the vision of top leaders and their pragmatic approach to the nation's problems, the streamlined political system of the PAP and the personal interest shown by the Prime Minister in the educational development of the nation, are factors that pointed to the conditions necessary for the successful implementation of educational change over the last four decades.

Given the political and economic roles envisaged for education, the government has played a dominant role in influencing education policies and their implementation. Singapore has a centralised system of education for all levels of education, with a ministry that spearheads policy implementation. Almost immediately, the MOE instituted the loyalty pledge for all students and mandatory participation in flag-raising ceremonies. In tandem with the promotion of civic commitment in 1968, and general all-round pupil development, an enhanced

programme of extra-curricular activities<sup>13</sup> (ECA) was instituted. The introduction of the National Cadet Corps in 1969 also marked a concern to better prepare for future service in the army (S. T. Lim & Gopinathan, 1994).

Reform measures such as the policy of bilingualism became compulsory for all students in 1966. This policy was to become a cornerstone of the Singapore education system (Yip, et al., 1994). The bilingualism policy is defined as proficiency in the English language as the first language and the “Mother Tongue Language” (C. Tan, 2006b, p. 136) as the second language. The MOE defines “mother tongue” not by the language spoken at home or the first language learned by the student at home, but rather, by the ethnicity of the child. Implicit in this policy is the government’s belief that effective bilingualism would help to broaden one’s employment prospects as well as break racial barriers, thus creating a harmonious society.

This strategic move gave Singapore students a head start in gaining access to the science and technology of the west. The economic factor in education is further seen in the late 1960s when industrialisation entailed that Singapore should have enough skilled workers for an export-oriented economy (C. Tan, 2006b). To provide the manpower base, the Technical Education Department within the MOE was established to oversee technical education for Singapore as a whole (Yip, et al., 1994). An indication of the emphasis on developing human resource was the increase in the annual government budget devoted to education between 1960 and 1982. A 20-fold increase in the annual expenditure on education accompanied a 30 percent increase in the student population (Neo & Chen, 2007). Complementing the emphasis on technical education, education in Singapore at that time also had an overwhelming slant towards mathematics, engineering and sciences as these disciplines were perceived to be relevant to Singapore’s development.

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<sup>13</sup> Extra-curricular activities (ECA) were renamed as co-curricular activities (CCA) in the year 2000.

### **Major educational reforms**

The growing affluence in the late 1970s and early 1980s saw the Singapore education system turning its attention to rectifying problems inherent in the system. It tried to fine-tune the system not only to meet the national goals but also the individual needs of students. Till then, education in Singapore had been focused largely on delivering education as a product and paid little attention to issues central to the educational process, such as the nature and purpose of education. Until 1979, the fundamental purpose of education had yet to be clarified and examined closely against the backdrop of Singapore's particular socio-economic and political milieu (Yip, et al., 1994). The need for educational reforms was highlighted in the report on the MOE in 1979. The report highlighted the problem of 20 to 30 percent of students dropping out of the system because they could not cope with the learning of two languages. The report concluded that the education system did not cater to students of different abilities and needs. In the wake of the report, the New Education System (NES) was introduced in February 1979 (Yip, et al., 1994). This radical restructuring of the education system saw an introduction of ability-based streaming at the end of primary three and an additional year of study for the weaker students in secondary schools (C. Tan, 2006b).

A recession in the mid-1980s provided a catalyst for the modern phase of education reform in Singapore. It was the beginning of a period of major restructuring of the Singapore education system that is still underway (Sharpe & Gopinathan, 2002). The publication of a crucial report by the Economic Committee in 1986 suggested ways in which Singapore could carve a niche in the international economic system. It emphasised the need for Singapore to prepare itself for the next phase of vigorous economic growth to a position as developed as the West (Horsky & Chew, 2004; Yip, et al., 1994). This change in economic perspective signalled further reforms in education. In connection with this call for change, 12 school principals went on a study tour to the USA and the UK to identify the contributing factors of good and effective schools. This study tour culminated in the report, *Towards Excellence in Schools*, which put forward a number of policy initiatives to produce

students who would be educated, creative and innovative (C. Tan, 2006b; Yip, et al., 1994). The immediate response in terms of educational policy primarily involved three main strands (Sharpe & Gopinathan, 2002). First, it involved an expansion of opportunity to bring more children into the education system for longer periods of time. Second, it involved measures to improve standards through the publication of national performance tables for secondary schools and junior colleges. The assumption of such measures is that the schools will be motivated to compete for higher places on the performance tables and therefore raise standards. Third, the introduction of independent<sup>14</sup> secondary schools, where the school leaders were given greater autonomy and encouraged to spearhead innovative programmes, activities and pedagogy for their schools. The setting up of independent secondary schools was followed by a number of autonomous<sup>15</sup> secondary schools to increase competition with and among the independent secondary schools. Principals of these schools are expected to be innovative and to develop a distinctive curriculum for their respective schools. Hence, they are given a free rein to raise funds and to make staffing and programmatic decisions.

More drastic changes were introduced by the MOE for primary school education in the Improving Primary School Education (IPSE) report in 1991 (Yip, et al., 1994). The report recommended that the Primary School Leaving Examination (PSLE) be used to place children in appropriate courses, namely the Special, Express, Normal (Academic) and Normal (Technical) streams in secondary schools. This is markedly different from education systems in some other countries where children usually attend schools that are geographically close to their homes, regardless of the children's abilities. The placement of children in the appropriate courses allowed Singaporean children to have access to minimum of 10 years of education and the measure benefited those who had previously failed PSLE and would have otherwise dropped out of the school system. They would now be given the

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<sup>14</sup> Introduced in 1988, these secondary schools are independent of the MOE. They can hire their own teachers and can charge school fees in order to fund their programmes. Nevertheless, they still depend on funding from the MOE and adhere largely to the curriculum set by the ministry.

<sup>15</sup> Introduced in 1994, these government schools are given greater autonomy over staffing and finance than their counterparts but less so than independent schools.

necessary time to master basic skills such as proficiency in the English language and mathematics, in the Normal Technical secondary stream before gaining admission to the post-secondary Institutes of Technical Education (ITE).

### **Diversifying the educational landscape**

In the beginning of 1997, Singapore faced another recession, which once again served as a stimulus for economic and educational change (Horsky & Chew, 2004). The government encouraged more open markets in the banking and telecommunications sectors and reviewed the whole education system. In conjunction with the economic reforms, schools were encouraged to teach students to be innovative, flexible, entrepreneurial, creative and committed to lifelong learning. The then Prime Minister, Goh Chok Tong, initiated the *Singapore 21* plan to clarify Singapore's future goals. The *Thinking School, Learning Nation* (TSLN) project was the educational counterpart of *Singapore 21*. Therefore, a concerted attempt at reforming the education system in Singapore is found in the TSLN vision launched at the 7<sup>th</sup> International Thinking conference on 2 June 1997. Goh Chok Tong highlighted the need for Singapore schools to nurture thinking and committed citizens to keep Singapore vibrant and successful in the future. The goal was for people at all levels of society to be actively engaged in lifelong learning nestled within a national culture of learning (C. T. Goh, 1997). The government recognised that a disinterested and indifferent population with no strong sense of belonging to the nation-state would pose a challenge to the survival of Singapore. The national education imperative, along with other ongoing nation-building programmes, is a continuation of efforts begun in the mid-1960s to socialise the younger generation of Singaporeans. However, what makes this version different from previous reform efforts is the recognition that globalisation, and the economic opportunities it provides, may strain the loyalties and attachment of young Singaporeans to the nation.

The government realises that it needs to convince younger Singaporeans that Singapore is their best home. Thus, national education initiatives were stepped up to introduce curricular and extra-curricular activities to sensitise young people to Singapore's national needs, concerns, and possibilities (Horsky & Chew, 2004). In a nutshell, the TSLN initiative signalled a wave of reform that focused on pedagogy and curriculum. Allan Luke et al. (2005) observe that the initiative also "pushed the system towards a more student-centred, active learning paradigm, with the aim of producing autonomous and independent learners" (p. 7).

In 1998, MOE published the *Desired Outcomes of Education* (DOE), which set out the end-objectives of formal education (Ministry of Education, 2000). These outcomes encapsulate the skills and values that are important for our young to have. These outcomes are strongly emphasised by the former Minister for Education, Teo Chee Hean, who highlighted that our young entering the workforce must be able to think critically in order to succeed in the new economic landscape (Teo, 2000). By the turn of the millennium, much change had been accomplished. Syllabi and examinations had been revamped to give more attention to creative and critical thinking skills. Syllabus content had been reduced to allow time for interdisciplinary project work and out-of-school activities. The radical change in the national performance tables in 2004 also signalled that academic excellence would no longer be the sole measure of quality (Davie, 2005). By 2004, the first two phases of the Information Technology (IT) Masterplan had been completed and all schools were equipped with computers, educational software and technical assistance. With fully networked schools, teachers and students could extend their learning horizons beyond the classroom and have access to educational resources almost anywhere in the world (Horsky & Chew, 2004; Sharpe & Gopinathan, 2002).

In recent years, Prime Minister Lee Hsien Loong has stressed that Singapore must provide many paths for our students to grow and develop in his National Day

speeches and inaugural Teachers' Day Rally<sup>16</sup>. He envisaged that the school landscape will continue to diversify in the next five years (Duffy, 2006). The educational changes percolating through schools and tertiary institutions are evident in the shift in focus from quantity to quality, and from efficiency to choices. Fluidity is injected throughout the system, recognising talents besides academic achievements, providing more flexibility in the school curriculum and streaming system. However, there was not to be any major fix in the education system to bring about the improvements, a point stressed by former Education Minister Tharman Shanmugaratnam (The Straits Times, 2005). One of the key thrusts reiterated was the groundbreaking *Teach Less, Learn More* (TLLM) message highlighted by PM Lee in his inaugural National Day Rally in 2004. TLLM was a call for educators to teach better, to engage students and prepare them for life, rather than to teach primarily for tests and examinations. The teacher is therefore, at the heart of TLLM and the core of quality in education. It is about richer interaction between the teacher and the student. The reduction in the amount of content in the curriculum gives teachers more space to make learning engaging and effective. In essence, TLLM "advocates pedagogical advancement and innovation in the teaching and learning process so that the education system may achieve a transformation from quantity to quality" (P. T. Ng, 2008, p. 7)

### **Impact of educational reforms**

Despite the backdrop of a broadened educational landscape, Singapore parents continue to place heavy premium on examination results and academic achievements. The shift in emphasis over the past decade has not changed the exam-oriented culture in Singapore, which retains a fixation with reducing learning to a set of skills measurable through national examinations (C. Tan, 2006a). This motivation to do one's best in one's education could be deeply rooted in Chinese tradition where one's education is an important matter for one's entire family and even for one's larger community, such as the extended family (Jiang, 2006). Given

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<sup>16</sup> An event held once in every five years. PM Lee Hsien Loong delivered his first Teachers' Day Rally in 2006.

the significance of education for one's future success, it gives students a strong motivation to do well in school and the student's family good reason to support the child's education (Jiang, 2006). It was not surprising that a recent survey revealed that parents still regard academic ranking as of sole concern (Davie, 2005). The findings of another study similarly show that the exam culture is deep-rooted and that the government's effort to have schools adopt the TLLM will need time to bring about change (J. Ng, 2005). There were also concerns that Singaporean students might lose their place among the top<sup>17</sup> mathematics, science and English reading literacy performers in the world with a less rigorous curriculum (A. L. Ho & Lin, 2004). Such concerns are especially relevant in Singapore where performance in competitive examinations is still a major determinant of educational and social mobility (J. Tan, 2006).

Although MOE believes that schools still need to keep doing the basics right, the government recognises that doing well in the basics is no longer good enough. The future requires teams of people, focused on continually improving and seeking a competitive edge through innovation. Moreover, it requires individuals with a special passion for what they do and the urge to keep going beyond the ordinary. To this end, specialist schools for sports, arts, mathematics, science and technology were set up; some schools even developed new Cambridge 'O' level subjects to cater to students with special talents and interests. Flexibility in admission systems such as direct admission into secondary school, polytechnics and universities based on aptitudes was implemented to broaden education. Beyond the specialist schools, mainstream schools are also encouraged to develop their unique strengths and niche areas. By 2012, targets have been set that half of the 365 schools in Singapore will achieve and be recognised for their niches of excellence (Shanmugaratnam, 2007). Embedded in the policies on diversifying education lies the government's hope that the momentum of change that began a decade ago will

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<sup>17</sup> Singapore has been maintaining the highest average scores in international tests in Mathematics and Science. Recently, primary school students even emerged top in English reading literacy despite the fact that more than half of these children come from non-English speaking homes (Shanmugaratnam, 2008).



see a more diverse crop of Singapore talents and new levels of excellence so as to give Singapore its cutting edge in Asia and the world. This change in diversity signifies greater space and opportunity for outdoor education to evolve in Singapore, from fulfilling the nation's needs to one that can realise other, more varied potentials, which will be discussed in subsequent chapters.

### **Singapore Outdoor Education: In the Service of Nation-building**

The beginnings of outdoor education in Singapore can be traced to the days of its independence. In order to have a contextual understanding of outdoor education in Singapore, it is crucial to look not only at its historical development but, more importantly, to consider what people are learning from it today and where it may lead us in the future.

Outdoor education in Singapore arose from the need to build its defence capability. After its independence, Singapore had two battalions that were under the control of a Malaysian brigadier and there were elements in Malaysia that wished to reverse Singapore's separation (Neo & Chen, 2007). Thus, building up the Singapore Armed Forces (SAF) became a top priority. In 1967, all able-bodied male Singaporeans had to enlist at age 18 for National Service, and thereafter remain operationally ready as part of the reserves for another 20 years. The announcement in 1967 of the impending withdrawal of the British troops made the formation of the national army even more urgent.

The build-up of Singapore's defence capability was carried out quietly so as not to unduly antagonise neighbouring countries. It was an uphill task as there was a need to reorientate people's minds to accept the need for a people's army and to overcome their traditional dislike for soldiering (K. Y. Lee, 2000). Extra-curricular activities (ECA) such as the National Cadet Corps (NCC) and National Police Cadet Corps (NPCC) were set up in all secondary schools so that parents could identify the army and police with their sons and daughters. This was to dispel the

fear and resentment towards the army and police as symbols of colonial coercion. Therefore, the onus was on the MOE to improve the physical condition of youths by getting them to participate in sports and physical activity of all kinds, and to develop a positive attitude toward adventure and strenuous activities. Schools started organising adventure courses for their students in response to Singapore's leaders' call for the building of a "rugged and dynamic" (K. Y. Lee, 2000, p. 25) society. In those days, most of these courses were organised by the British Army and were mainly based in Pulau Ubin, a less developed island close to the main island of Singapore. Therefore, the early days of outdoor education was in the form of adventure courses to build ruggedness in the young to prepare for Singapore's military defence.

### **Outward-bound**

In 1967, Dr Goh Keng Swee, the Minister for Defence and Interior, mooted the idea of an Outward Bound School (OBS) in Singapore. Two New Zealanders, Hamish Thomas and Al Cameron, were invited to help set up OBS that year. The OBS was intended to help build the "rugged" society (Outward Bound Singapore, 2007). The first OBS course in February 1968 was improvised with few resources. When Thomas and Cameron returned to New Zealand, local instructors began to develop more localised OBS courses in 1969. For instance, the instructors built an obstacle course in the waters surrounding Singapore in addition to the conventional land-based obstacles courses. They learnt from *kelong*<sup>18</sup> operators how *kelongs* were built, and then used those techniques to build an obstacle course that extended from the beach into the sea (Outward Bound Singapore, 2007). The management of OBS moved from the People's Association (PA) to the Ministry of Defence (MINDEF) in 1971. This change had a number of significant implications, such as army officers replacing the pool of OBS instructors. Under the training division of the army, the OBS became a conduit for the provision of adventure and leadership training to young men and women, and also provided a way to give ordinary Singaporeans a taste of military life.

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<sup>18</sup> A Malay word to describe fishing villages built on stilts.

From 1982, all male students in the NCC were to be exposed to the rigours and challenge of tougher training (N. Koh, 1982). Thus, other than the courses at OBS, their training included foot-and-arms drills, rifle range practice, map-reading or orienteering, topography marches, campcraft, section training and annual weekend camps. According to Nancy Koh (1982), the aim was to develop rugged and confident boys who would find it easier to adapt to national service when enlisted. However, such uniformed groups and OBS activities were gradually extended to girls. Launched in 1989, the National Camp that was held to coincide with the National Day celebrations, brought together students from eight uniformed groups (C. J. Chua, 1989). Outdoor activities such as canoeing, orienteering, telematches and campfire were conducted during the National camps to toughen the students both physically and mentally. Even today, these camps remain as platforms for members of various uniformed groups to meet and discuss national issues.

### **In need of a rugged society**

Taking a leaf from the British Empire, the ruling elites in the once colonised Singapore persisted with the early 20<sup>th</sup> century notion that outdoor activities should be used to develop fitness for war and ruggedness in our young. On more than one occasion, the first Prime Minister, Lee Kuan Yew, called on Singaporeans to work to be a “rugged society” (The Straits Times, 1990, p. 1). He said that if the trend of rising obesity were left unchecked, it would have adverse effects for the nation as a whole and the SAF in particular. The need for a rugged society came into sharp focus once again in 1990 when then First Deputy Prime Minister Mr Goh Chok Tong observed that more Singaporeans were becoming “flabby” (C. J. Chua & Tan, 1990).

The emphasis on building a rugged society led to the Physical Education (PE) curriculum coming under close scrutiny. In 1990, the PE college appointed a specialist from Britain, Malcolm Gilbey, to head the outdoor education department. According to Sharon Lim (1990), the department had four lecturers concentrating on sailing, orienteering, canoeing, campcraft and personal development. The idea

was for PE teachers who had been through the course to introduce these outdoor pursuits as ECAs in schools. It was uncertain if such adventure activities that had been developed for an individualistic culture like that of UK and USA would be appropriate for a Singaporean society that places emphasis on community and interdependence. Nevertheless, these activities seemed to have been widely and uncritically accepted.

With rising interest in adventure activities among young Singaporeans, the number of adventure clubs within community centres rose from 11 in 1985 to 20 in 1990 (E. Tan, 1990). In support of the nation's call for a rugged society, the MOE endorsed a policy<sup>19</sup> to ensure that every secondary school student goes through at least one residential camping experience in his or her school life. As a result, camping became the most popular outdoor education activity offered by schools. A survey conducted by the MOE in 1991 showed that 98 per cent of primary schools conducted camps for their students (Extra-Curricular Activities Centre, 1991). Therefore, since the 1990s, camping has been established as an important aspect of the education system in Singapore.

In 1991, the management of the OBS was returned to PA (Outward Bound Singapore, 2007). The aim was to offer Singapore's young people exciting activities to develop their physical and mental ruggedness. To support the nation's efforts, MOE formalised OBS programmes for secondary schools by setting aside a yearly budget to subsidise their students (L. H. Ong, 1990). However, not all students would have a chance to go through the OBS due to its limited capacity. Therefore, MOE resourced two adventure centres at Jalan Bahtera and Ponggol with outdoor adventure facilities to cater to schools' outdoor camping programmes. A climbing tower and other team-building activity stations were added to the camping and canoeing facilities. About 40,000 students up to the junior college level each year were able to get a taste of outdoor living and adventure at these centres (Phua, 1996).

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<sup>19</sup> The policy has since been revised in year 2004 to providing every child with at least two camping experiences in their secondary school years.

Almost all schools in Singapore offer their students some form of adventure-based programmes, ranging from camping to overseas expeditions. To maximise the usage of the MOE adventure centres, each school was allocated a three-day two-night slot for their camps. Indirectly, this led to the growing trend of schools organising camps that span over a three-day period, accommodating about 300 students each time. The design and nature of schools' programmes vary from school to school, largely dependent on the availability of each school's financial, human and physical resources. The camps are typically adventure-based and include activities such as campcraft, campfire-making, orienteering, team-building, challenge ropes courses, abseiling and rock-climbing. Many private vendors have also entered the market in servicing schools' requirements in organising camps for students.

### **Surge of outdoor activities**

In 1999, outdoor education was included as one of the learning activities at the college level in the revised physical education syllabus produced by the MOE (Wang, et al., 2006). In the same year, an outdoor education department was formally set up in ECAC<sup>20</sup> under the MOE. The large amount of resources committed to schools' outdoor education programmes and a department to oversee its implementation underscores the important role it plays in the Singapore education system. Along with the surge in camping programmes organised by schools, another emerging trend was for schools to take students on overseas trips to learn more about other cultures. According to Sandra Davie (2001), 264 schools conducted 786 study trips overseas in 2001. Most of these trips were conducted during school holidays and combined lessons with outdoor pursuits and community service. Schools were sending students abroad to pick up skills they could not learn in the classroom in a bid to "toughen up" the country's youths (Almenoar, 2005a). According to tour operators, adventure trips overseas have become popular with secondary school and junior college students. In the past few years, hundreds of youngsters have headed for the jungles of Thailand, the mountains of New Zealand

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<sup>20</sup> Currently known as Co-Curricular Activities Branch (CCAB).

and the deep waters off Malaysia, and the numbers appear to be rising (Almenoar, 2005b). The trend is not surprising. According to Maria Almenoar (2005b), the ministry has set aside \$4.5 million a year to help finance such programmes for students to become more rugged.

Since 2004, the MOE launched two new and purpose-built adventure centres to cater to the adventurous teens. The management of the MOE adventure centres has been outsourced to private operators and they run programmes for schools throughout the year, catering to about 70, 000 students annually (T. Y. Lui, 2006). This move has unwittingly resulted in more schools taking up the standard three-day two-night camping packages for their students. The outsourcing of outdoor education programmes may have worked against MOE's intent of creating a more diversified landscape in education. The camping packages offered by these vendors are usually targeted at mass participation and they offer schools quick-fix solutions<sup>21</sup> to meeting the MOE's policy of conducting at least two camps for each secondary school student.

In fact, the adventure centres were part of an effort to address the view that Singaporean youths were becoming too soft (J. Ng & Chan, 2004; Soh, 2004), a situation which former Education Minister Tharman Shanmugaratnam described as a bigger challenge for the country than the economic one (C. L. Goh, 2004). Shanmugaratnam stressed the importance of providing our children with a holistic and broad-based education, with a strong emphasis on activities that develop tenacity and strength of character. He felt that sports and rugged activities, such as outdoor camps or expeditions and uniformed groups, lend themselves to building these qualities. He also pointed out that it is not just physical resilience that we seek to develop and used Tiger Woods<sup>22</sup> mental composure as an example of mental resilience (Shanmugaratnam, 2004a). This deviates from the earlier emphasis on building defence capability through outdoor education. The emphasis appears to have shifted towards inclusiveness so that each child can develop the

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<sup>21</sup> Usually come in the forms of three-day camps that cater to a level of about 300 students at a time.

<sup>22</sup> Woods' "mental resilience" was not sustained after the revelations about his personal life in 2009.

tenacity to thrive in the globalised environment. Nancy Carlsson-Paige and Linda Lantieri (2005) point out that the climate of contemporary education where teachers focus mainly on the academic matters, leave little time for children to pursue such meaningful connections that could lead to responsible global citizenship. The recent Singaporean primary school review by MOE (2009a) recognises that the fundamental task of education is to go beyond academic achievement and that the most effective way to promote knowledge, attitudes and skills to bring about responsible global citizenship is still unclear. The MOE review committee is of the view that learning is holistic, and understanding emerges from active experiences that make sense to learners. In the same review, outdoor education has been selected as one of the means of teaching the concepts, values and skills of global education, because it can provide students with authentic experiences that engage them actively and holistically.

The inaugural MOE outdoor education conference was held in 2004, and has since been held once in every two years. The conference was intended to create a vibrant environment for discussion amongst outdoor educators, for teachers to share their experiences and to learn from the international community. At the first conference, four specialists from Britain and Australia spoke on such topics as the rationale for outdoor education and approaches to fostering psychological resilience (C. L. Goh, 2004). The minister's concern that Singaporean students were becoming less resilient than their forebears was echoed by the Director-General of Education, Seah Jia Choo in her keynote address during the second conference in 2006. She strongly supports an important role for outdoor education in shaping a rugged society.

One of the keynote speakers of the 2006 conference, Peter Martin (La Trobe University, Australia), conducted a survey on teachers' perception on the learning outcomes of outdoor education (Martin & Ho, 2009) with the group of 300 conference delegates. The survey suggested that the range of beliefs about the outcomes of outdoor education in Singapore was rather narrow. According to the survey, Singaporean teachers ranked outcomes related to recreation the lowest in

priority and outcomes related to personal and community development the highest in importance. The Singaporean respondents considered outdoor education as most importantly pursuing educational outcomes such as resilience, group co-operation and personal responsibility. They also considered academic outcomes of enhanced critical thinking or problem solving to be more important than environmental outcomes, such as promoting environmental appreciation. Another finding is on the topic of teacher competency that may have implications on the delivery of outdoor education in schools. Majority of the Singaporean outdoor educators expressed that the outdoor education field requires specialist knowledge and skills (88%), and many (39%) felt unsure about their qualifications and experience to teach outdoor education (Martin & Ho, 2009). This finding is hardly surprising as there is no avenue for teacher training in outdoor education other than in-services courses offered by the MOE.

### **Professional development**

With the establishment of the outdoor education department within MOE in 1999, a number of in-service courses on outdoor education were offered to teachers and school leaders. These courses focused on developing teachers' competencies in risk assessment and management systems, abseiling, climbing, expedition management, and facilitation skills. This was done with the hope that more teachers who have a passion for the outdoors will also be equipped with the skills and competencies to conduct camps and overseas trips. However, this will not fill the void in pre-service teacher training and it remains one of the pressing challenges for the Singapore education system (Martin & Ho, 2009).

As mentioned earlier, the PE curriculum for junior colleges was revised to include an outdoor education component in 1999. However, the National Institute of Education (NIE) did not subsequently step up the pre-service teacher training courses to prepare PE teachers to teach the outdoor education components. The only outdoor education components of the PE teaching diploma course are a few days of outdoor pursuits experience. Although one tertiary institution in Singapore,



Republic Polytechnic, has initiated a Diploma of Adventure Based Learning, these students will not be trained or registered as teachers. Thus, one of the possible reasons for outdoor education being taken out of the junior college PE curriculum could be due to a lack of appropriately trained outdoor education teachers.

The current PE syllabus (Ministry of Education, 2006) that was implemented from 2006 effectively marginalises outdoor education as “other physical activities” (p. 40). The document states that outdoor activities could be included in the PE programme as a means to attain the expected learning outcomes, for example, rock-climbing can be used to develop muscular strength. Other than listing such activities as these, there is no mention of the objectives, scope, content and intended learning outcomes of outdoor activities in the PE syllabus document.

### **In search of meaning and vision**

To pursue the outcomes derived from the survey conducted at the second MOE outdoor education conference, a group of outdoor educators shared a four-day outdoor expedition in July 2007, to deliberate further on the roles of outdoor education in Singapore schools. Discussion notes and email correspondences were used to develop consensus on a draft statement of the purpose for outdoor education in Singapore which comprises three complementary and equally important components: ecological literacy, resilience and critical thinking (Martin & Ho, 2009). The statement acknowledged the importance of resilience but also included educational imperatives suggested by climate change and the need for cultural harmony in a multi-cultural and multi-faith population.

Following the World Economic Forum in Davos in early 2008, Prime Minister Lee noted that the effort to improve Singapore’s environmental record will prepare the nation for the future, taking into consideration that energy is likely to remain costly and that climate change will continue to be on the global agenda (Fernandez, 2008). His view supported our (see Martin & Ho, 2009) argument that Singapore, as a first world nation, has to be proactive in addressing climate change, limiting

carbon emissions as well as addressing the root causes of excessive consumption. Thus, changes to notions of affluence in a world more driven by ecological criteria will demand resilience. We argue that outdoor education could play a pivotal role in re-orienting young people to alternative worldviews.

There is a need for outdoor educators and teachers to continue this conversation and to envisage outdoor education's purposes in the ever-changing educational landscape of Singapore. This conversation certainly needs to be extended beyond the current definition of outdoor education by the MOE (2008) as "a means of achieving the desired outcomes of education through guided direct experience in the outdoors" (p. 1). For outdoor education to sustain and flourish in Singapore, where education is still very much in the service of the society, its contribution needs to be grounded in time, place and culture.

## **Theoretical Interpretive Framework**

From the review of the literature, I have constructed a theoretical interpretive framework that will be used to interpret the findings of this study in chapters six and seven. The framework of the purposes of outdoor education, shown in Figure 2, is a synthesis of the key concepts derived from the literature review. It is a portrayal of the purposes and functions of outdoor education in the literature review, which in turn could be subjected to the global influences and the local contexts. However, it should be noted that the framework presents only the general image of a much more detailed process and thus not all aspects of the literature reviewed could be reflected.

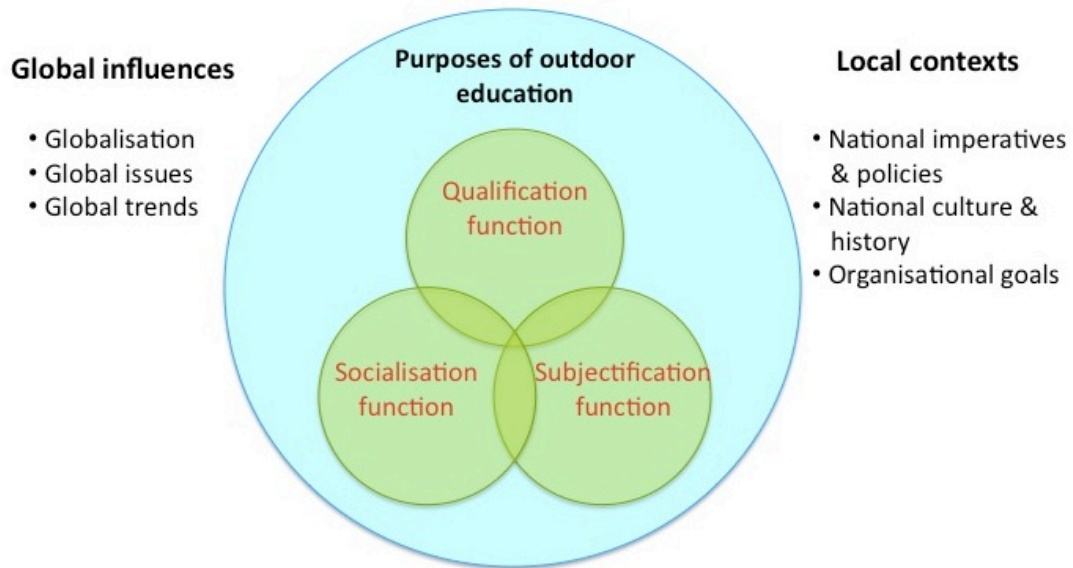


Figure 2. Theoretical interpretive framework of the purposes of outdoor education.

I have differentiated the three functions of outdoor education. They are socialisation, qualification and subjectification. The socialisation function refers to the creation of a particular social order, for example, participating as members of outdoor clubs. The qualification function points to the acquisition of outdoor skills ranging from the specific for example, kayaking, to the general, such as life skills. The subjectification function is about developing the critical and independent individual such as, an explorer. These functions collectively describe the purposes of outdoor education.

However, these purposes are influenced by global and local settings. Globalisation, global issues and trends could subject the purposes of outdoor education to changes. For instance, the current global warming issues is shifting the emphasis in outdoor education in the UK to one that embraces environmental consciousness, which can be considered as satisfying the socialisation function of outdoor education.

In the same vein, local settings such as the culture, national policies and imperatives could also impact on the purposes of outdoor education. For example, the primary function of outdoor education in Singapore in 1960s was building

military defence. This was to serve the nation's need for building its military, owing to its newly found independence. Building the physical capabilities of teenage boys who are due to be enrolled into the army, can be considered as serving both the qualification and socialisation functions of outdoor education. The qualification function of acquiring physical strength and the socialisation function of creating a strong army are illustrations of how national imperatives could drive the purposes of outdoor education in Singapore.

## **Summary**

The literature reviewed in part one of this chapter provides an overview of definitions of outdoor education, with particular attention to the problematic character of the numerous definitions. In part two of this chapter, I describe the historical/philosophical foundations of outdoor education to bring forth the ideas that have shaped outdoor education today. However, the lack of theoretical exploration of the history and philosophy of outdoor education has led to the uncritical adoption of neo-Hahnian approaches in the practice of outdoor education. I also review the principle of challenge by choice, commonly used in outdoor and adventure education settings and discuss the issues surrounding its application. I identify the outcomes and characteristics of outdoor education programmes discussed in the international literature of the field. However these outcomes may not present the full picture of an effective outdoor education programme. I agree with Biesta (2009) that effectiveness is a value about the quality of processes, which involves deliberating on the purposes that the programme serves. I quote Biesta's (2009) conceptual framework for further deliberation on the purposes and functions that outdoor education could serve. I also discuss the evolving landscape of outdoor education globally to signal anticipated shifts in emphasis within outdoor education practice. I describe a number of historical influences on the evolution of outdoor education in Singapore, such as developing Singapore's military defence and building a "rugged society". Finally, I discuss some of the challenges for outdoor education in Singapore, and I conclude with a theoretical framework that I will use to interpret the findings of this study.

## **Chapter Three:**

### **Methodology**

According to Willis (2007), “all research is influenced and shaped by the preexisting theories and worldviews of the researchers” (p. 96). The choice of a methodology in this study is therefore based on my worldview and my assumptions about how the research should be conducted. In the first part of the chapter, I outline the theories, understandings, conceptualisations and representations of inquiry that determine my research methodology. I also discuss the origins of these theories and identify some of the scholars who have privileged them. I also provide reasons for deciding that these theories would be appropriate and adequate for my research purposes. I then outline the research design, data generation and analysis methods, and discuss some possible limitations and ethical considerations in this study.

#### **Rationale for a Naturalistic Approach**

My rationale for the naturalistic approach adopted in this study is influenced by my worldview and the nature of the research. I am of the view that every individual has a different way of perceiving the world. Therefore, I hope to capture the diverse perspectives of outdoor education in Singapore through the stories of my participants. My previous research experience tended toward positivistic research approaches that used predominantly quantitative methods. This type of research typically strive to numerically report on empirical observations made within a controlled environment in order to determine causal relations among a few variables. I recognise that this is not the only way to study outdoor education in Singapore and now prefer to use more interpretive approaches. I agree with Karla Henderson (2006) that “more than one view of the world will enhance the puzzle-solving possibilities and will help to extend the scope and precision of scientific knowledge” (p. 24).

My choice of naturalistic inquiry is also based on my assumptions about the nature of the research. I believe that I need to take on an interpretive approach in order to tell a story about how outdoor education in Singapore was in the past, what it has become and what potential it holds for the future. Therefore, I believe that “intuition and contextual aspects” (Henderson, 2006 p. 27) are crucial in trying to understand and interpret these stories. Although my previous research background favoured a positivistic approach, my sense is that an interpretive approach, such as the naturalistic inquiry, offers greater potential for addressing the research questions in this study. Hence, I consider naturalistic inquiry well suited to this research as it recognises the importance of context and it is able to accommodate the multi-faceted and diverse contexts of the study.

Naturalistic inquiry, as initially described by Lincoln and Guba (1985), is an interpretive approach; it is not concerned with variables and measurement but, rather, with the contextual aspects of the phenomenon (Henderson, 1991, 2006). Lincoln and Guba subsequently used the term “constructivist” in preference to “naturalistic” because the term “naturalism” is often associated with the physical sciences (Green, 2002), but naturalistic has been retained by others, including Erlandson et al. (1993) and Pam Green (2002). In this study, Lincoln and Guba’s (1985) version of naturalistic inquiry is the key reference point for my methodology. In the early stages of my research, I surveyed other possible approaches but I am satisfied that the approach described by Lincoln and Guba 25 years ago remains relevant to this study. However, I also recognise that interpretive approaches have been further developed and refined over time, and I will refer to more recent texts (e.g., Guba & Lincoln, 2005; Henderson, 2006; Lincoln, 2010; Lincoln & Guba, 2003) where these are relevant to this study. Specifically, I will discuss two issues “voice” and “reflexivity”, (p. 192) to which Guba and Lincoln (2005) have extended their theorising.

### Five axioms of the naturalistic inquiry

Naturalistic inquiry is based on a core set of assumptions and understandings that reflect a particular view of how and what knowledge might be generated from the research process. In the following sections, I describe the five axioms (accepted basic beliefs) of naturalistic inquiry proposed by Lincoln and Guba (1985) and their relevance to this study. Figure 3 summarises these axioms.

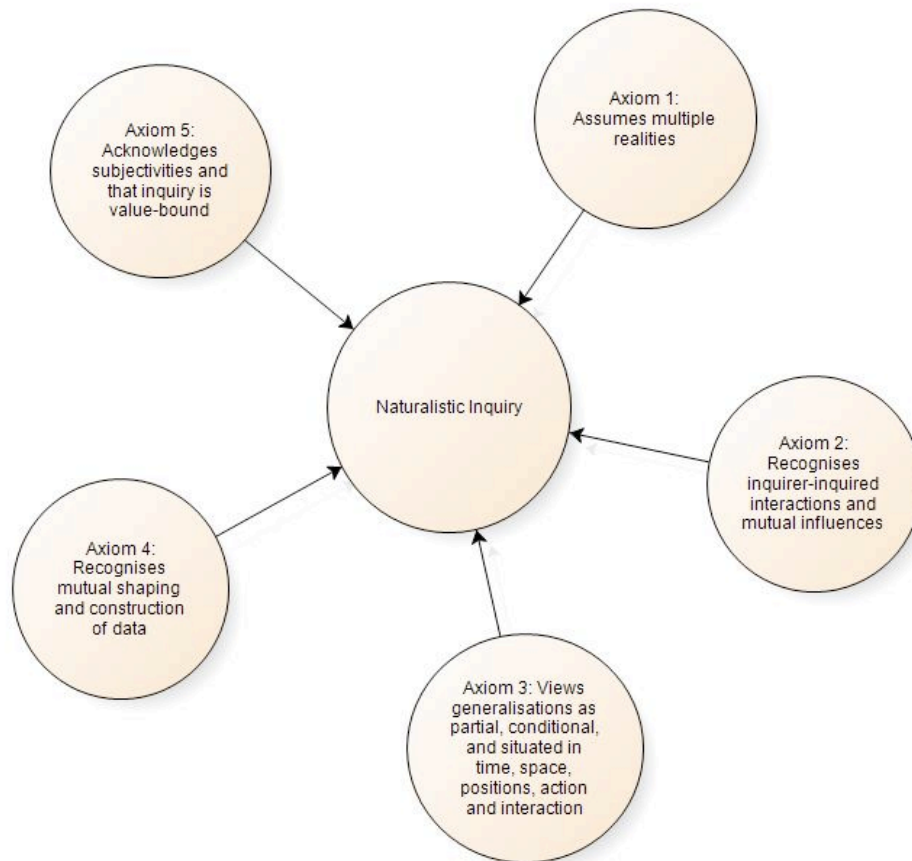


Figure 3. The five axioms of naturalistic inquiry.

**Axiom 1:** The nature of reality (ontology) – There are multiple constructed realities that can be studied only holistically; inquiry into these multiple realities will inevitably diverge (each inquiry raising more questions than it answers) so that prediction and control are unlikely outcomes although some level of understanding can be achieved. (Lincoln & Guba, 1985, p. 37)

According to Henderson (2006), the study of a phenomenon is complex. I therefore need to consider the multiple realities in the conduct of outdoor education in the

case study school. It is important for me to adopt a research methodology that acknowledges multiple constructed realities and allows holistic study. In an interpretive approach, social phenomena are understood from the participants' perspective and human behaviour is a product of how participants define their world. Reality is the meaning attributed to experience (Henderson, 2006) and it is not the same for all. I find the example given by Juliet Corbin and Anselm Strauss (2007) particularly insightful. They used the analogy of watching a group of people discussing an event on television. There is much discussion and sometimes conflict about what was being portrayed, but rarely a total agreement about the meaning of the event. Therefore, the viewer sees and hears multiple viewpoints on the same topic without apparent consensus. As a researcher, I need to acknowledge that what is being seen and heard is filtered through my interpretation of the event based on my personal history and experiences. Having recognised that such a complex picture can never be fully understood or reconstructed, my role is to try to explain and reconstruct knowledge out of the stories that are produced by the participants of this study. I use different data generation methods (Henderson, 2006) such as interviews with various members of the school community, field observations and my field notes to gain multiple perspectives.

***Axiom 2:*** The relationship of knower to known (epistemology) – The inquirer and the object of inquiry interact to influence one another; knower and known are inseparable. (Lincoln & Guba, 1985, p. 37)

Marilyn Lichtman (2006) points out that researchers are not “static humans who maintain an aloof posture as they pursue their thoughts, dreams and desires” (p. 206). It is expected that the ability to observe during the study is both heightened and diminished by our prior knowledge and expectations (Bean, 2006). In seeking to understand the role of outdoor education from the staff members' and students' perspectives, I anticipated that my views would also interact with the ways in which they responded.



The power relations of inquirer-inquired interaction are also important considerations in this study. My current status as both a postgraduate research student and a senior specialist in the Singapore education ministry, adds to the complexity of these power relations. As a recognised member of the participants' professional community, I bring a professional identity to the research site – the case study school – that impinges on inquirer-inquired relationships, and I need to closely monitor the effects of these power relationships through self-reflexivity, an important aspect in the research process (Pillow, 2003). Self-reflexivity raises questions about the politics of how researchers go about doing their research (Pillow, 2003) and demands that researchers interrogate themselves regarding “the ways in which research efforts are shaped and staged around the binaries, contradictions, and paradoxes” (Guba & Lincoln, 2005, p. 210) that form their lives. Although I use strategies such as keeping a reflective journal to document my influence on the research data, naturalistic inquiry recognises that such biases cannot be eliminated and must therefore be acknowledged. Therefore, I have attempted to “member-check” (Lincoln & Guba, 1985 p. 314) the data and interpretations with my participants where possible.

***Axiom 3:*** The possibility of generalization –The aim of inquiry is to develop an idiographic<sup>23</sup> body of knowledge in the form of ‘working hypotheses’ that describe the individual case. (Lincoln & Guba, 1985, p. 38)

Whereas positivism looks for universals, naturalistic inquiry “rejects true generalizability” (Erlandson, et al., 1993, p. 36) and looks instead for understanding of a particular context. In naturalistic inquiry, an understanding of context is critical to the interpretation of data (Willis, 2007) and, therefore the qualitative data produced in this study are not context-free. As a researcher, I must ascertain meanings from the context in which the behaviour is occurring. I need to understand the motives and beliefs behind the participants' actions in the school. I have to try my best to document and investigate the context in which outdoor

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<sup>23</sup> Relating to or dealing with the concrete, individual or unique.

education occurs, namely, the curriculum framework, the politics, the interpersonal climate and the physical surroundings of the school.

Green (2002) suggests that naturalistic inquiry is a “culturally-driven approach to social research” (p. 9) and involves description of the processes within a given setting. This study does not intend to make broad generalisations about the purposes of outdoor education, but the data produced may enhance understanding of how outdoor education can contribute to the Singapore education system and society. Although naturalistic inquiry is dependent on context, this does not mean that the results of research cannot be applied or used in settings other than the one in which the data were produced. This is what Lincoln and Guba (1985) described as transferability. The responsibility for determining the transferability of research findings to other contexts lies with the reader of the research rather than the researcher. Through “thick description” (Lincoln & Guba, 1985, p. 214) of the context, readers can decide for themselves on the applicability of the research findings to other contexts and situations. Hence, the onus is on me, as the researcher, to describe the case in sufficient detail so that the readers can make informed comparisons, analyses and judgements.

***Axiom 4:*** The possibility of causal linkages – All entities are in a state of mutual simultaneous shaping so that it is impossible to distinguish causes from effects. (Lincoln & Guba, 1985, p. 38)

Within a naturalistic approach, it is inappropriate to attribute causes and effects. This is in part due to the affective nature of teaching and learning. Much of what happens in an educational setting is the interplay among a broad and diverse array of actors, agents, texts, contexts and technologies, including the natural or built environment, lesson plans, learning activities, teachers and students. It is difficult to ascribe any form of causal relationships or linkages to any particular actor or agent. Hence, “qualitative researchers tend to perceive events as Tolstoy did in *War and Peace* – multiply sequenced, multiply contextual and coincidental more than causal” (Stake, 2005, p. 449). Lincoln and Guba (1985) contend that in the principle of mutual simultaneous shaping, researchers may overtly select those

“interactive shapers” (p. 152) that afford meaningful perspective upon the researcher’s purpose. In addition, a naturalistic approach accepts reflective discussions of professional practice (Willis, 2007) and “thoughtful reflections of experienced practitioners” (p. 110). In other words, my role as a researcher is included in the relationships in this research. As such, the analysis may reach a stage where the stories emerge within the data, which is the dialogue, the interaction between researcher, participants and context. Hence, a naturalistic approach is appropriate as it can acknowledge any part of any relationship in this study to be both the cause and effect.

***Axiom 5:*** The role of values in inquiry (axiology) – Inquiry is value-bound... (Lincoln & Guba, 1985, p. 38)

As mentioned above, the purpose of a naturalistic inquiry is not the discovery of universal laws but, rather, the understanding of a particular situation. Even this initial aim is inherently subjective. A look at the research question that I chose reveals that the inquiry is heavily value-laden from the outset. The identification of my values strengthens the trustworthiness of my account. Furthermore, I am an “inquirer” who belongs to the field, the school and the education system. Having spent my entire life in Singapore, and the last 15 years teaching and serving in the education ministry, I am value-bound to the ethos of the organisation and the nation. Given that my personal experience with research has been mostly positivist, the notion of multiple realities in the naturalistic paradigm challenges and excites me. I needed to pay attention to things that I normally would not have considered and it has not been an easy task.

Naturalistic inquiry is based on a post-positivist worldview that challenges positivist assumptions. Using naturalistic inquiry, I aim to develop and verify shared constructions of the purposes and functions of outdoor education in Singapore, as evidenced through outdoor education in one secondary school. Interpretation of the data will follow a grounded theory approach (Corbin & Strauss, 2007), which will be elaborated in subsequent chapters.

## Case Study

The goal of naturalistic inquiry is to understand and interpret the complex world of lived experience from the perspectives of those who live in it. Naturalistic inquiry can be conducted using a variety of methods, among which I have chosen case study, chiefly because “case studies are about real people and situation and much of the data collection occurs in real environments” (Willis, 2007, p. 239). Moreover, “case study is a good approach when the inquirer has clearly identifiable cases with boundaries and seeks to provide an in-depth understanding of the cases or a comparison of several cases” (Creswell, 2007, p. 74). I also acknowledge that case studies may provide partial insights, captured and interpreted at a particular time, place and under particular circumstances (Walker, 1983), a point that I highlighted as a limit of this research in my introduction.

Researchers like Robert Yin (2006), John Creswell (2007), Norman Denzin and Yvonna Lincoln (2005) represent case study as a strategy of inquiry, a methodology or a type of design in qualitative research. Stake (2005), however, argues that case study is not a methodological choice but a choice of what is to be studied. We can study the case “analytically or holistically, entirely by repeated measures or hermeneutically, organically or culturally, and by mixed methods” (Stake, 2005, p. 443). Willis (2007) suggests three major reasons for using case study methods. Firstly, case study allows the researcher to gather rich data in an authentic setting. Secondly, it is holistic and supports the naturalistic notion that much of what we can learn about human behaviour is best described as lived experience in the social context. Thirdly, unlike experimental research, case study can be undertaken without predetermined hypotheses, an approach aligned to the characteristics of a naturalistic approach.

Stake (2005) describes three types of case studies, namely intrinsic, instrumental and multiple. An intrinsic case study is “undertaken because one wants better understanding of this particular case” (p. 445). An instrumental case study is “examined mainly to provide insight into an issue or redraw a generalization” (p.

445). Unlike an intrinsic case study, the case is of secondary importance within an instrumental case study. The case is still looked at in depth, its context scrutinised, its ordinary activities detailed, but all because this helps the researcher to pursue an external interest. Here the choice is made to facilitate our understanding of something else. Stake's third type is the multiple or collective case study, which is an "instrumental study extended to several cases" (p. 446).

My study of Christ Church Secondary School is an example of Stake's category of instrumental case study. In an instrumental case study, research questions focus on issues because the case and context are "infinitely complex and the phenomena are fluid and elusive" (Stake, 1995, p. 33). In later work, Stake (2005) explains that "issues are chosen partly in terms of what can be learned within the opportunities for study" (p. 449).

### **Emergent design**

Naturalistic studies are "virtually impossible to design in any definitive way before the study is actually undertaken" (Lincoln & Guba, 1985, p. 188) and are therefore characterised by emergent design. In conducting this study, I maintained a journal that included field notes of observations as well as reflective notes of my thoughts, feelings and experiences. In addition, I recorded an array of notes in a qualitative data analysis software package, NVivo 8. The strengths and limitations of using this software will be discussed in a later part of this chapter. Although the design of a naturalistic inquiry is emergent, some aspects of the research can be planned in advance to facilitate such emergence (Erlandson, et al., 1993). These include decisions about the research setting, sampling, data production and reporting.

### **Research setting**

Outdoor education is implemented in varying forms in most Singapore schools. Therefore, the research setting of this study is broadly that of the Singapore's education system with particular reference to one site within this system, namely, Christ Church Secondary School. I chose this school as the case study site because

it provides outdoor education as part of the school curriculum. It is also a MOE-endorsed Centre of Excellence<sup>24</sup> (COE) in outdoor education for the northern part of the island. It is currently<sup>25</sup> applying to be a niche school in the area of outdoor and adventure education. If approved by the MOE, the school will be provided with additional funding to further enhance its current programme, Risk-based Adventure Curriculum for Excellence (RACE). The selection of this site for my research is therefore based on its uniqueness and its reputation as an example of best practice. As no case study of outdoor education has been done in Singapore schools before, I have chosen to use a single-case study where it serves a “revelatory purpose” (Yin, 1989, p. 48). In this case, I have an opportunity to observe and analyse a phenomenon that has not been investigated previously, and the descriptive information alone will be revelatory. The findings of this study and their interpretation will help to broaden and diversify the field of outdoor education research in Singapore.

The specific settings in which data production takes place are also important to the design. One of the characteristics of a naturalistic approach is to carry out research in the natural setting (Lincoln & Guba, 1985). In this study, I conducted field observations of the participants when they were engaged in outdoor activities. Other sources of data included semi-structured interviews and informal interactions with staff and students, my journal and document analyses.

A challenge for me as a beginning researcher was to determine the types of data that would be most useful in responding to particular research questions and the methods of data production that would be most trustworthy in the given situation (Henderson, 2006). In the next section, I recount and discuss some of the methodological considerations, characteristics, limitations and ethical considerations relating to this study.

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<sup>24</sup> In encouraging schools to carve a niche for themselves, MOE awards schools with titles such as COE and niche schools. Some of the responsibilities of the COE and niche schools include sharing of resources, developing the niche area and professional development and sharing.

<sup>25</sup> refers to the year 2008.

## **Sampling Strategy**

This study takes on a “purposeful sampling” (Silverman, 2006, p. 306) strategy “to get the most comprehensive understanding of a phenomenon” (Henderson, 1991, p. 133) and to maximise the chances of including the full range of multiple realities (Lincoln & Guba, 1985). In choosing a case to study, an array of possibilities for purposeful sampling is available, cases that show different perspectives on the problem to ordinary cases, accessible cases or unusual cases (Creswell, 2007). In this study, I want to deepen my understanding of the purposes of outdoor education in Singapore schools and its education system. Therefore, I chose a school that I believe I could learn the most from. This school stands out among other Singaporean schools in that it places a high premium on teaching of outdoor education. This is in the same vein as Stake’s (2005) suggestion that sometimes it is better to learn a lot from an atypical case than a little from a seemingly typical case.

When choosing the case study school for this research, other considerations such as easy access and maximum time for me to spend with the school’s programmes and field trips were also important. For example, I was able to spend a significant amount of time in the field because the school offers year-long outdoor education activities. Although I joined them in the second semester, that is to say, July to November, I was able to participate in the full range of camps and trips. Although it is understandable that researchers should include convenience in the consideration of their research sites, I agree with Geoffrey Walford (2001) that we should try to access the most appropriate site and not settle for convenience.

Given the school’s reputation in outdoor education, I assumed that its staff and students were likely to be knowledgeable and informative about its outdoor education programmes. Twenty staff members and 11 students were informants in the study. My intended sampling criteria included: representation of both genders, mix of ages, mix of ethnic groups, mix of outdoor experience in the school and mix of number of years in teaching. However, I also wanted all informants to be willing

volunteers who were interested in being part of the research, so I did not try to produce a “sample” that strictly met predetermined characteristics. Nevertheless, the demographics of the participants (see Appendix A) are a reasonable approximation of the criteria I initially had in mind.

I used a purposive sampling strategy to decide on the types of activities, locations and time periods I would observe. I spent about six months with the school as a teacher-aide, and thus a participant-observer, of its outdoor education activities. I reported to the school whenever my assistance was required. Before I commenced the fieldwork, I was prepared to spend at least 20 hours per week with the school. The activities that I chose to be involved in were based on their diversity in content and objectives. In addition to helping with four of the outdoor education camps organised for secondary one classes, I assisted in two overseas field trips with two different groups of students. One trip was organised for secondary three students to Karimun island in Indonesia while the other was organised for lower secondary students who needed to work on their interpersonal skills. I was helping to supervise the activities and, at the same time, observing how the activities were planned and how they varied in terms of objectives. In addition to involving myself in the activities, I also assisted in the professional development courses for staff. I spent one week-long school vacation training a group of nine teachers to become licensed instructors for the MOE adventure facilities and another two days sharing my experiences of (and expertise in) rescue techniques applicable to such adventure facilities. I was aware that this took me out of the participant-observer-helper role into one in which the power relations with my research participants were less symmetrical. I will discuss how I have managed such differential power relations in the section on self-reflexivity.

## **Entry and End Points**

One of the challenges of case study research is that it may not have clear entry and end points (Creswell, 2007). Thus, I needed to set boundaries that adequately surrounded the case. Case studies often involve placing the researcher into the



environment that is being studied and, according to Willis (2007), this makes entry difficult. To facilitate my entry, I needed to spend some time building rapport with the site's "gatekeepers". Gatekeepers are people who are able to grant or to deny access to the field (Silverman, 2006). In this study, the gatekeepers are the MOE and the principal of the case study school. As Willis (2007) emphasises, the process of gaining entry calls for an understanding of the context, an ability to communicate the research purpose concisely, and a disposition that puts the gatekeepers at ease. My status of wearing many "hats" – as a graduate student, researcher, and MOE specialist trainer – may have been to my advantage when it came to negotiating access to the school. Coincidentally, the principal of the school was a former colleague in the school from my time as a beginning teacher.

Although there are some advantages in using personal connections to gain access, Maria Birbili (1999) points to a number of significant negative effects of casting among friends in order to gain access. For instance, although I did not want to hide my friendship with the principal, I also needed to maintain a professional distance from him in my research role, so that the participants could trust me to maintain confidentiality about whatever they chose to divulge to me. Negotiating the roles of researcher and friend was not always easy, but I had to attempt to do so, because I did not want one friendship to distort the professional relationships I formed with other research participants. According to Andrea Fontana and James Frey (2005), the researcher's presentational self leaves a profound impression on the participants and has a great influence on the success (or otherwise) of the study. In my interactions with the staff and students, I tried not to appear imposing, intimidating, elusive or mysterious.

I negotiated the role of teacher-aide so that I could establish rapport with the staff and students. Besides the principal, I also knew a number of the school personnel through my work with MOE. Although it was easy to "fit" into the new environment with the few familiar faces, it was not so easy to convince them as to why I was "reluctant" to offer feedback on their programmes. Moments like these made me feel guilty and that I was taking more than I was contributing.

Establishing rapport was one thing, to maintain it called for much more. It required me to adopt a friendly, flexible attitude and a disposition to understand and empathise with the participants. Therefore, I found that simply “hanging out” with the participants in the camps, school assemblies, social gatherings, staff meetings and overseas trips allowed them the time and space to get to know me better and for me, to gain their trust. The ethical considerations of the relationships will be discussed in a later part of this chapter.

I based my decision about when to “stop” my case study on my estimate of theoretical saturation. According to Corbin and Strauss (2007), a study reaches theoretical saturation when “all the categories are well developed in terms and properties, dimensions, and variations” (p. 263) and no additional new information appears to be surfacing (Henderson, 1991). In an emergent research design, the exact number or type of participants, even if specified in advance, can change as new data are produced and interpreted. For instance, it became clear to me that I initially overlooked the Co-Curricular Branch (CCAB) as an important data source. From the interviews, some of the teachers regarded CCAB as crucial to their professional development. As the training from CCAB would have influenced these teachers’ perspectives and practices of outdoor education at Christ Church Secondary School, I subsequently conducted three additional interview sessions with my past and current colleagues from CCAB.

Willis (2007) points out that the processes of data production, analysis and interpretation are often treated as separate parts of the case study process. However, a neat and linear presentation of how data are produced, analysed and interpreted does not reflect the reality of case study research. In reality, these processes overlap or take place concurrently, as illustrated in the following sections.

## Data Production

The sources of data in this research included in-depth interviews with 20 staff and 11 students, field observations, a journal that I maintained, blog entries of students and other school documents relevant to outdoor education. In naturalistic inquiry, there is no particular moment when data production begins, as illustrated by the following quote:

A considerable proportion of all data is impressionistic, picked up informally as the researcher first becomes acquainted with the case. Many of these early impressions will later be refined or replaced, but the pool of data includes the earliest of observations. (Stake, 1995, p. 49)

The researcher is the primary instrument of data production and analysis (Merriam, 1990). It is likely that a researcher will have prior assumptions even before data are produced. Walford (2001) points out that having assumptions is an inevitable feature of the research act, and his argument is not about the danger of having assumptions but, rather, of not being aware of them. To achieve such awareness, the researcher must constantly review how his or her ideas evolved and reflect on why particular decisions were made, why certain questions were asked or not asked and why data were produced a particular way and so on (Walford, 2001).

As a beginning researcher, I had to rely on my own instincts and hunches throughout most of the data production phase. I found writing one of the most effective ways of stimulating my thinking. I maintained a journal that captured my thoughts, feelings, doubts and experience as a researcher throughout this process. I also detailed the decisions that I made at various stages of the study. I made an audio recording of all the interviews with my participants, which I subsequently transcribed. I made a conscious decision to personally conduct and transcribe all the interviews. I felt that this was a way for me to be intricately connected to the entire data production process. As I went through the process of transcribing, some parts of the conversations triggered my memory of the gestures and other non-

verbal cues (eg., facial expressions) that accompanied the verbal expressions and I noted these parenthetically for further analysis.

### **Interview process**

In qualitative studies, researchers tend to rely on interviews to produce much of their data and to have some faith that the data are trustworthy and accurate (Corbin & Strauss, 2007). Stake (1995) considered interviews to be the main way to access multiple realities because much of what we cannot see for ourselves has been or is being observed by others. I found the interviews particularly useful for accessing the participants' beliefs and values on outdoor education, which I could not necessarily observe despite the large amount of time I spent with them.

According to Bill Gillham (2000), the "semi-structured interview is the most important form of interviewing in case study" (p. 65). This type of interview involves the researcher developing a general set of questions that is used with all participants (Lichtman, 2006). Although the general structure was similar for all interviewees, I varied the questions depending on the situation. As a beginning researcher, I found semi-structured interviews appealing because I was not yet sufficiently confident to conduct unstructured interviews. More importantly, I chose this form of interview because I anticipated that not all my respondents would be comfortable with speaking freely without some structure and focus to the discussion.

I prepared for the interviews by considering issues raised by Lichtman (2006) and Fontana and Frey (2005) such as developing rapport, selecting a setting and gaining trust. I pilot tested the interview questions with two friends who were both teachers and then conducted a trial run with one of the ex-pupils of the case study school. These preparation efforts sensitised me to the language of the interviews and helped me sharpen some of my questions. Sensitivity to language, particularly the use of specific terms, is important in the creation of "sharedness of meanings" (Fontana & Frey, 2000, p. 657) in which both the interviewer and

respondent readily understand the contextual meanings of specific referents. Therefore, I also paid particular attention to my non-verbal gestures (“body language”) in the interviews. For example, I did not think that it was appropriate for me to show any disapproval of views that were in conflict with mine during the interviews. I was mindful of my gestures that may suggest such disapproval.

I conducted interviews with 20 staff members, each of which lasted about half an hour. I conducted these interviews in English<sup>26</sup> but occasionally switched to Singlish as this seemed a more natural way to converse and put the interviewee at ease. As noted in chapter one, Singlish is a local version of English spoken by the majority of Singaporeans (Velayutham, 2007). It is a combination of Chinese dialects and Malay, which is unique to Singapore. If I were to maintain the disposition of an interviewer who spoke impeccable English, I would have felt alienated and might not have established rapport or provided a setting in which interviewees felt comfortable about speaking freely. I conducted the interviews during the third term of the school year, but was unable to conduct a second round of interviews, owing to the busy schedules of the teachers. I also conducted interviews with 11 students; each session lasting about half an hour.

I found semi-structured interviews suited my purposes as they flowed with the dynamics of the conversation, making the interviews less formal and allowing me the space to explore lines of inquiry not previously anticipated. The sets of planned questions (see Appendix B) were not intended to restrict the flow of conversation in the interviews, but were useful guides to ensuring that salient points of the research were covered. I recorded the interviews so that I could transcribe them later. For the recording, I sought the participants’ permission before doing so. None of them objected to the idea, and a few of them felt “excited” about having their voices recorded.

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<sup>26</sup> English is the language of instruction used in Singapore schools.

### **Field observations**

Producing data through field observation has long been associated with anthropology (Lichtman, 2006). In the past, it was also generally assumed that naturalistic observation should not interfere with the people or the activities under observation (Angrosino, 2005). However, some researchers like David Silverman (2006) argue that no data are ever untouched by human hands and we should treat terms like “naturalistic” or “naturally occurring” with some caution. Michael Angrosino (2005) highlights some of the contemporary views about, and recent trends in conceptualising observation. They include characteristics such as researchers’ willingness to develop a membership identity in the communities they study and their recognition that it is not feasible to harmonise observer and insider perspectives so as to reach a consensus. Silverman (2006) points out that observers can sometimes change the situation just by their presence and so the decision about what role to take on in the research is critical. I decided to take on the membership identity of teacher-aide and assume the role of “participant observer” (Lichtman, 2006, p. 141) so that I could conduct the observations as part of the group that I observed.

An important aspect of this study involved observing the outdoor education activities of the school. Observation is especially essential when documents do not exist and a full picture cannot be obtained by interviewing. Furthermore, observation can be particularly illuminating when used to verify whether people do what they say, or behave in the way they describe. In this study, I used the observation data to place the interview data in context and to provide the additional perspectives on the purposes of outdoor education.

Angrosino (2005) asserts that all forms of observational research involve three procedures of increasing levels of specificity: descriptive observation, focused observation and selective observation. According to Stake (1995), developing vicarious experiences for the reader means giving them a sense of “being there” (p. 63). This may include providing a detailed description of the physical situation,

which allows the reader to get a sense of both the uniqueness and the ordinariness of the place. However, this may yield a large amount of data, some of which might not be of relevance to the study. Silverman (2006) cautions that “even if you are using both eyes and ears, you will still have to decide how to record your data” (p. 88). Owing to the limited time I had to complete the study, I decided to use focused observation where I looked chiefly at material that was pertinent to the study. For example, I observed the behaviours and interactions of the students during the school’s outdoor education activities that could not be determined through interviews alone.

The types of things that I observed and recorded included broader impressions such as the sequence of activities within the outdoor education programme, the location and setting, the weather, snippets of conversation during the activities, and any other things that I thought would be relevant to this study. Although I lacked experience in doing field observations, I felt that my observational skills improved over time. I allowed preliminary data to shape subsequent collection processes and focus. For example, if in the first class camp, I observed that the class was extremely responsive to the facilitator, I would subsequently observe the things that the facilitator did in order to make that happen.

I kept detailed records of events observed during field observations for further analysis and reporting. In addition to hand-written notes, I initially planned to dictate voice notes to my iPod. I envisaged that this might be convenient as many of the activities would be outdoor-based and time to hand-write notes could be limited. It was only when I went on the field trips that I realised that dictating notes to my iPod was impractical. I was on the move all the time and it was impossible to step away and dictate ideas and thoughts into the iPod. I was making supper one moment and attending to a sick student the next. I was hardly left alone until time for bed. As far as possible, I kept to a schedule of writing while observations were still fresh in my memory. I wrote during the night before I headed for bed. In cases when I was too tired, I would write at the end of the camp. In making field notes, I

was not simply recording data but also analysing them at the same time, a process that will be elaborated in my discussion of the data analysis process.

### **Journaling**

Journaling was particularly important in this study. Lincoln and Guba (1985) describe the reflexive journal as “a kind of diary in which the investigator on a daily basis, or as needed, records a variety of information about self and method” (p. 327). I kept a journal that detailed my thoughts and feelings during the research. It also contained information about the methodological decisions that I made during the study and my reasons for making them. The reflexive journal that I maintained also served as an “audit trail” (Lincoln & Guba, 1985, p. 319) of the decisions I made with regard to the emergent research design.

My original idea was for the teachers and students participating in this study to maintain journals that would provide data related to my research. However, I had to change this plan. I realise that it was not feasible for the teachers and students to keep these journals owing to a number of reasons. First and foremost, both teachers and students were clearly too busy with other aspects of their daily schoolwork to keep a journal. Secondly, journal writing (in the pen-and-paper sense) about their daily happenings was not part of either the teachers’ or students’ cultural repertoires. I found that the school has blog websites created for all their camps and trips that I could easily access. I could read the blogs that were posted by the teachers and students from the trips. Although I lost one source of data, I was presented with another which could potentially be much more authentic and interactive. The other observational activity that was particularly useful was sitting in at the organising committees’ meetings. These two alternatives more than made up for the teachers’ journals that did not materialise.

### **Document analysis**

According to Corbin and Strauss (2007), non-technical literature consists of letters, biographies, diaries, reports, newspapers, catalogues and a variety of other



materials that can be used as primary data and/or to supplement interviews and observations. In this study, relevant non-technical literature included the school's curriculum documents, minutes of meetings, and other records that illustrated the values and beliefs of the participants in the study.

The documents that were particularly useful for this research were related to the school's outdoor education programme. I obtained these from the principal and the head of department and they included the yearly students' handbook, school newsletters, notes of meetings, and research reports. Many of the documents included statements of the school's philosophy and values, aims and objectives, and outcomes of specific activities.

### **Data analysis**

In naturalistic inquiry, the analysis of data begins as soon as they are produced (Lincoln and Guba, 1985). My data analysis started with a review of literature or other data already in the public sphere such as newspapers, novels, radio, web, archived data (Bazeley, 2007). The quality of the analysis is dependent on the background of the researcher, his or her discipline and the method used (Corbin & Strauss, 2007). My knowledge of the education system in Singapore acquired over the years as a teacher and a specialist with the MOE was useful when I analysed the data of this study.

As a researcher, I assumed the role of translator of my participants' words and actions. It was not an easy task as "words can have different meanings from one language to another and from one situation to another" (Corbin & Strauss, 2007, p. 49). Although I transcribed all interviews in their entirety and conducted the coding personally, it was neither possible nor desirable to construct only one story from the data. Qualitative data are inherently rich in substance and full of possibilities. The analysis can range from superficial description to theoretical interpretations. Therefore, the aim of the research needs to guide the analysis. This study intends to use the example of one school's outdoor education to illuminate insights on the

purposes and functions of outdoor education in Singapore. Hence, the analysis method should be one that stretches beyond superficial description of the case.

Corbin and Strauss (2007) suggest that the analysis of the data is a process of generating, developing and verifying concepts from the first piece of data. These initial analyses, however, were not thorough and came in the form of notes in my journals. According to Sharan Merriam (1990), the interpretation or analysis of data is never quite finished because the process of data discovery and analysis is recursive and dynamic. However, that does not mean that analysis is finished once all the data have been produced. In this study, the analysis became more intensive once all the data were produced, even though analysis was an ongoing activity.

Over the period of six months with the school, I generated and analysed a massive amount of data. I could not imagine manually coding the huge volume of interview transcripts, field notes and analyses into meaningful ideas. Therefore, I explored the option of using a computing software package for data analysis, the advantages of which include saving a great deal of time (Lichtman, 2006). The software imported text material from the word processing programme and generated a list of codes, based on my input. It also allowed complex searches to be done and information from the files was readily accessible once the data were coded. From Corbin's and Strauss' (2007) perspective, one of the most important contributions of such computer software programmes is that the researcher is able to try things out from a different axial view of the data and seek alternative explanations without spending a lot of time retrieving and organising data. In my own experience, I appreciated the easy retrieval and layout work done by the software. Moreover, the coded data served as an audit trail of my work and the decisions that I made.

However, all software programmes have limitations. Udo Kelle (1995), in a discussion about the methodological impacts of using computer software for qualitative analysis, raises his concern that the researcher could become alienated from the data by a machine. Corbin and Strauss (2007) also express apprehension about advocating the use of such computer software programmes for fear that users

might be led into “letting the computer programme rather than the analyst structure the analysis” (p. 310). Raymond Lee and Nigel Fielding (1995) suggest that such concerns “reflect the traditional preoccupation of qualitative researchers with epistemological matters, a historical recognition of the way which computers transformed quantitative research and perhaps, even a measure of technological conservatism” (p. 29). Nevertheless, Corbin and Strauss (2007) agree that the time has come to recognise the role of computers in the future of qualitative research. After weighing the pros and cons of using a computer software programme and exploring the various software options, I decided to use NVivo 8 because it allows for high flexibility in coding data (Bazeley, 2007).

Computer software programmes have also been criticised because the methodological assumptions that underpin the software can influence the analytical process. For instance, in the case of NVivo 8, it can potentially ignore the pluralism of qualitative approaches because grounded theory approaches were used to develop this product. Since I had already decided that grounded theory procedures would inform my analysis, I had some confidence that NVivo 8 would be an appropriate tool for my use. I was grateful for a software package that could provide a repository for my large amount of data, including the writings that I have accumulated over time. Despite having a software to manage my data, I share McMillan and Schumacher’s (2006) view that the analysis of the data was left very much open to the interpretation of the user and the researcher, which will be discussed in chapter four.

### **Data production process**

Gough (2002) uses the term “producing data” (rather than “collecting” or “gathering” data) to draw attention to the idea that data is not “out there” waiting to be discovered, but rather, that data are actively constructed by researchers. He highlights the “significance of recognising that research is an embodied performance and that methodological (dis)positions and preferences have a tacit or personal dimension that might be difficult (or impossible) to represent in

conventional ways, such as in the standard research report” (p. 7). According to Stake (2005), case study reports facilitate the conveying of experience of participants as well as the experience with the case and it can be achieved through narratives and situational description of activity, personal relationship and group interaction. Given that I am comfortable with sharing daily events and happenings in my own blog entries, I am inclined to produce a narrative that provides opportunities for vicarious experience, so that readers can extend their perceptions of happenings.

Even when empathetic and respectful of each person’s realities, the researcher decides what the case’s ‘own story’ is, or at least what will be included in the report. More will be pursued than was volunteered, and less will be reported than was learned. (Stake, 2005, p. 456)

The above quote sums up the impending challenge of making sense of the reams of interview transcripts, field notes and other data to select appropriate evidence to represent them during the data production process. I coded the interview transcripts and built 14 categories of concepts from which I selected the core category. I then proceeded to see how these core categories could be linked. This process will be discussed in greater detail in chapter four.

High quality research, in Kathleen Manning’s (1997) view, remains dynamic, where “meaning grows from the co-constructed themes in the research product as the reader adds his or her personal experience into an interpretive reading” (p. 110). Therefore, I cannot say that the final report is complete and I do not know with certainty if the conclusions indeed represent the data (Henderson, 2006). However, I agree with Henderson (2006), who argues that a rich narrative report that “includes principles of trustworthiness, theoretical and empirical consistency, and personal reflection can help” (p. 233). Hence, the following sections are dedicated to a discussion of establishing trustworthiness in data production and ethical considerations that affect and inform this study.

## **Trustworthiness**

The naturalistic approach to assessing the quality of research is different from the criteria of reliability, internal validity, external validity and objectivity used in the positivist research paradigm. Lincoln and Guba (1985) propose trustworthiness as a more appropriate measure of quality for naturalistic research. Trustworthiness is a measure of how well the researcher persuades his or her reader to take the findings of the study seriously. In the literature of qualitative research, some basic strategies for establishing trustworthiness include prolonged engagement and persistent observation, participant member checking, triangulation of multiple data sources, peer review, and external auditing. These techniques, mostly suggested by Lincoln and Guba (1985) and Erlandson et al. (1993), allow readers to recognise how data have been produced and interpreted (Henderson, 2006). The following sections outline and discuss these techniques and their relevance to this study.

### **Prolonged engagement and persistent observation**

Lincoln and Guba (1985) advocate “investment of sufficient time to achieve certain purposes: learning the ‘culture,’ testing for misinformation introduced by distortions either of the self or of the respondents, and building trust” (p. 302). In this study, prolonged engagement was satisfied in several ways. I spent six months in the school, taking on the role of teacher-aide in a wide range of outdoor education activities conducted by the school. I spent, on average, 20 hours per week with the school, assisting the outdoor education department in the school or accompanying the students on their class camps and overseas trips. During the six months, I spent time on data production and analyses, even though conducting interviews and field observations took up most of the time. My constant presence and visibility in the school facilitated my acceptance in the school community. Over the period of six months, I believe that trust and rapport was built with the staff members and the students of the school. I felt I was a part of the community.

According to Lincoln and Guba (1985), the purpose of persistent observation is to identify and bring to focus those characteristics and elements in the situation that are most relevant to the issue being investigated. Manning (1997) elaborates that persistent observation “requires the researcher to expend the effort necessary to discover the important issues in the research context” (p. 103). While prolonged engagement with the school provided me the scope for research, persistent observation in the school allowed me to go deeper into the context and meaning of the study.

### **Member checking**

Lincoln and Guba (1985) refer to member checking as “the most crucial technique for establishing credibility” (p. 314). Member checking is the process whereby the data, interpretations and emerging conclusions are tested with participants in the study. However, Manning (1997) argues that member checking is more than assuring the researcher “got the stories right” (p. 102). She argues that it is “part of the collaborative process of negotiated outcomes that assures that the themes emerging throughout the study arise from the respondents” (p. 102).

I sent transcripts of interviews by email to all participants and invited them to make comments and/or corrections; I also specified that I would take a nil response to mean that everything was in order. Of the 20 staff members, one has moved to an independent school and another has gone on long-term leave. Of the remaining 18 staff members, 15 of them responded to confirm that they had no comments or amendments. Three of them did not seem to have accessed their emails. I also sent the transcripts to the three MOE colleagues (past and current) for their comments. Unfortunately, I was not able to do a similar member check with the student participants, as I did not have access to their email addresses.

According to David Silverman and Amir Marvasti (2008), respondent validation should not be confused with the validation of research findings. They add that triangulation and respondent validation are considered “fallible paths to

validity” (p. 261) and advocate thinking critically as an aim to produce valid findings. I therefore see member checking as one of the ways of establishing trustworthiness, which needs to be supported by several other processes. In the next section, I elaborate how I have used triangulation in my study as a way to expand my data sources and insights.

### **Triangulation**

Triangulation is generally considered to be a process of using multiple perceptions to clarify meaning and interpretation (Stake, 2005). According to Silverman (2006), the most common application of triangulation in qualitative research is the use of multiple methods. In other words, triangulation occurs when multiple sources and methods are used to produce data. According to Merriam (1990), the procedure of using independent investigators and using multiple sources for establishing validity in cases studies was established more than 40 years ago. She cautions that triangulation might produce data that are inconsistent or contradictory. Alexander Massey (1999) also argues that trust in this form of triangulation is misplaced. He notes that this thinking was taken up enthusiastically in research methods textbooks, thus reinforcing the use of triangulation as a legitimate technique within social science research. He also points out that the key mistaken assumption in much triangulation work in the social sciences is that data that look the same mean the same thing. Therefore, in his view, one should seriously question the claim that multiple methods can be used to “examine the same dimension of a research problem” (p. 190).

Silverman (2006) concedes that if we treat social reality as constructed in different ways in different contexts, then we cannot look to a single phenomenon which all our data represent. However, he does not mean that qualitative researchers should avoid generating data in multiple ways. Rather, he suggests that different sources of data could be combined to help the researcher make better sense of one another. In this study, I have chosen to collect multiple sources of data ranging from interviews, observation notes, memos, official documents and blog entries. Instead

of using the different sources of data collection to assess the credibility of my interpretations, I consider each method a unique technique for constructing unique data, as suggested by Massey (1999). As a qualitative researcher who is interested in a diversity of perspectives, I am interested in identifying the different realities.

I do not aspire to depict the context-free “truth” when I narrate stories of outdoor education in Singapore. I would like to integrate the different sources of data to provide a thick description or narrative that makes sense to readers. One of the main intents of thick description is to help readers decide for themselves the suitability of application of the research findings to other contexts and situations. Hence, I have attempted to describe the case in sufficient detail so that the reader could make informed comparisons and analyses. From a standpoint of a qualitative researcher who is interested in multiple constructions rather than notions of truth *per se*, I choose to adopt strategies such as thick description and self-reflexivity (to be discussed in the next section) to ensure credibility in my data production. It is not possible to convince readers of the credibility of any research without addressing the researcher’s personal biases, assumptions and worldview during the process of inquiry. Hence, adopting a self-reflexive stance in this study is a strategy that I have included to increase the trustworthiness of this research.

### **Self-reflexivity**

[Self-reflexivity] raises questions about the politics of how we go about the doing of our research but also engages the researcher herself in self-reflective practices. It acknowledges the researcher’s role(s) in the construction of the research problem, the research setting, and research findings, and highlights the importance of researcher becoming consciously aware of these factors and thinking through the implications of these factors for her/his research. (Pillow, 2003, p. 179)

I am aware that data are produced and interpreted through my eyes, heart and head in this research. Therefore, the role of self-reflexivity in research is critical (Pillow, 2003). This is especially crucial due to my multiple roles in the case study school. I am a researcher, a MOE official, a teacher-aide and a trainer for the school’s



outdoor teacher-instructor course. The influences and power relations that flow from these various roles cannot be ignored. Moreover, the principal of the school was my former colleague and many have come to learn of my research in the school. Based on my experience in the school, I felt that it was impossible not to become part of the political agendas of the school. I therefore created opportunities in my interaction with the participants to make my own beliefs, values and assumptions explicit. I also kept a reflexive journal to critically examine my various roles and their influences on the research data. I recorded how my work related to the larger political forces and tensions and reflect on the unspoken assumptions that I am operating within.

### **Peer review process**

Complementary to self-reflexivity, researchers should be perpetually engaged in “reflective conversation” (see Morgan, 1983, pp. 381-82 cited in Connole, 1993) which means the use of conversation to explore assumptions that guide our inquiry. It is in presenting one’s own position and listening to others that we can move beyond pitfalls such as “inbreeding” of concepts, ideas and assumptions. In my opinion, researchers might not be able to avoid these problems through self-reflexivity alone. Therefore, I engaged in ongoing and periodic discussions with my peers who are knowledgeable about research methodology, but not directly involved in the study.

I asked two external peer reviewers, both of whom are colleagues completing PhDs at the University of Melbourne, to check the credibility of the coding categories that emerged from the interview transcripts. I chose these two colleagues specifically for their knowledge of qualitative research processes. I requested that they familiarise themselves with the codes and working explanations of the codes used. I also asked them to do a random check of the transcripts for credibility and dependability of the coding used. I invited them to discuss their findings related to the code checking. I also presented preliminary findings at a student research

conference to get feedback about my study and, eventually, to add richness to the interpretations of this study.

### **External audit process**

To enhance the dependability of the research, independent professionals, such as my supervisors, were requested to complete an external audit process. The auditors examined both the process and the product of the research. To facilitate the audit process, I ensured that the processes and data I used were traceable and defensible. In addition to the data stored in my computer and its software, NVivo, the maintenance of a reflexive journal in this study was also used in the construction of an audit trail for verification.

### **Voice**

Lincoln (1995) highlights voice as another criterion for establishing trustworthiness, that is mentioned increasingly by researchers. Unlike in former eras, where “the only appropriate voice was the voice from nowhere” (Lincoln & Guba, 2003, p. 282), voice can mean, in today’s context, including both the researcher’s and the participants’ voices in the text. In this study, I have attempted to let my readers “hear” the participants through the data poems that I have constructed from the exact words they spoke in their interviews. In the process, readers can examine for “uneven respondent-researcher power relationships” (Manning, 1997, p. 101) and/or fairness in communicating the perspectives of the many voices in the study.

### **Ethical Considerations**

To minimise the power relations described earlier, I tried my best to emphasise my teacher-aide/ student researcher role and diminish my MOE position during my interaction with the participants. I also made clear my research role through a written explanation of the purpose of the research and the involvement that the study entailed at the beginning of my study. Participation in this study was

voluntary and I informed participants that they had the option to discontinue their participation at any time. The consent forms (see Appendix C) included the permission to undertake this research from La Trobe University Human Research Ethics Committee (HREC). One of the roles of the HREC is to ensure that research participants are able to make informed choices to participate in the research.

Another important ethical aspect of this research is to protect the confidentiality of the participants. While it is my duty as a researcher to report accurately the phenomena that I was investigating, I also have an obligation to protect the identities of people involved in the study. For this reason, the names of the interviewees and others connected with the case study were altered or excluded from the report.

I suggested to the principal that I could use a pseudonym for the school to protect its confidentiality. However, the principal did not think that the school had anything to hide and even requested that the name of the school should be used, a request to which I acceded. Moreover, my presence in the school for an extended period of time means that many people knew about my research role. Thus, even if it was feasible to disguise the identity of the school, the attempt to do so might pose more ethical issues than acknowledging it as the research site (Walford, 2002). Although I acknowledge that it might be problematic to reveal the name of the school, I believe that my findings will be interpreted as affirming and informing possible areas for the school's improvement.

## **Summary**

In this chapter, I have presented the naturalistic approach as the methodological framework of my research. I have also introduced the issues I faced before and during the processes of data production, analysis and interpretation. I have outlined and discussed some of the strategies for establishing trustworthiness in this research. I have also justified my attempts to achieve trustworthiness by sharing with readers the social world I have studied through thick description, reflexivity

and considerations concerning voice. I have concluded by highlighting some of the ethical considerations relevant to this study.

## **Chapter Four:**

### **Data Analysis**

In this chapter, I describe how I have conducted the data analysis with close reference to Corbin's and Strauss' (2007) grounded theory procedures. Grounded theory is a methodology developed by Barney Glaser and Anselm Strauss (1967) for the purpose of building theory from data and its procedures have been elaborated and refined over time by other theorists. I refer to several of these, including Strauss and Corbin (1990) and Kathy Charmaz (2006), but have found the work of Corbin and Strauss (2007) most useful for my purposes.

According to Corbin and Strauss (1990), the procedures of grounded theory are designed to “develop a well integrated set of concepts that provide a thorough theoretical explanation of social phenomenon under study... It may also implicitly give some degree of predictability, but only with regard to specific conditions” (p. 5). Unlike Glaser's and Strauss' (1967) earlier position – that theory emerges from the data – I tend towards a more constructionist position, namely, that neither data nor theories can be “discovered” (Charmaz, 2006; Corbin & Holt, 2005). Grounded theory, in its constructionist version, is a “profoundly interactive method” (Charmaz, 2009, p. 137) which emphasises interaction throughout the analytic process. I take the view that there are multiple realities or ways of interpreting a specific set of data. I construct the grounded theories through my past and present involvement and interactions with my participants and their perspectives during the research. In other words, the theory generated in this study is not only a reconstruction of events but also a co-construction between me and the other participants.

#### **Asking Questions as a First Step**

Grounded theory coding requires us to ask analytic questions of the data produced. This coincides with my habit of penning my thoughts, which I use as a means to

reflect on my work as a specialist and the meaning of outdoor education in Singapore. Incidentally, I have derived more questions than answers. I soon realise that the asking of questions is a tool that is useful at every stage of data analysis. Subsequently, I use some of the questions to embark on this study. Going by Corbin's and Strauss' (2007) description of data analysis as beginning right from the first day of data gathering, I did in fact start data analysis before I commenced this study. Corbin and Strauss (2007) describe data analysis as a circular process, where data gathering could lead to analysis that could lead to concepts, which in turn could generate questions, thus leading to more data gathering. This circular process continues until the research reaches the point of saturation, when all the concepts are well defined and explained.

Data analysis is not one of the stages within my study but rather, an ongoing process. This approach allows me the flexibility to go where analysis indicated would be the most fruitful place to produce more data that would answer the questions that arise during analysis. From my earlier analysis, based on my own questions, thoughts and assumptions about outdoor education in Singapore, I selected a case study school as a starting point for data production. At the beginning of the study, there were many matters that I considered such as decisions about the site, the kinds of data to be used and how long the site should be studied. These initial decisions gave me a sense of direction and a starting point.

## **Analysing Data for Concepts**

While conducting my fieldwork at the case study school, I reflected on the data each day, whether in the form of field notes, observations or interviews, by writing down my thoughts in my journal. This formed part of my early analysis that informed and guided the next stage of data production. I began with reading materials such as observation notes and transcripts from beginning to end, resisting the urge to write any notes or highlight anything. The idea behind the first reading, according to Corbin and Strauss (2007), is to enter vicariously into the life of the participants and listen to what they are telling us. The incidents, events and

happenings were analysed as “potential indicators of phenomena” (Corbin & Strauss, 1990, p. 7) which were then coded as concepts<sup>27</sup>.

I began the coding soon after the first observations and interviews were completed and it served as a foundation for further data production and analysis (Corbin & Strauss, 2007). My first pieces of data were observation notes compiled after my first meeting with the principal and key staff members six months before I started my fieldwork with the school. My initial analysis helped me crystallise the key research questions in my study. At the same time, I was also beginning to think about some of the questions I was going to ask in the interviews with staff members and students. Some of the concepts derived from this meeting with the school leaders also gave me a focus for my review of the literature.

Subsequently, when I conducted the fieldwork, I applied the same principles of initial analysis. The analysis of my observation notes led me to arrange for interview sessions with the form teacher and students from the first class camp that I observed. At that stage, I preferred to work on the data by examining each section in depth and developing concepts along the way. The concepts became numerous and more abstract as the analyses continued. However, this close encounter with the data at the early stage paid off as I found subsequent analysis in the later stages much easier. During the later and more intensive part of my data analysis, I decided to use a software package, NVivo 8, to organise all my memos<sup>28</sup>. I typed the written notes into the computer software programme as memos for subsequent coding. It took up a substantial amount of time, but it proved to be useful because it made me revisit my analyses. Such coding was to be the first analytic turn in the grounded theory journey (Charmaz, 2006).

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<sup>27</sup> Concepts are coded as free nodes in NVivo 8.

<sup>28</sup> In grounded theory procedures enunciated by Corbin and Strauss (2007), the analyses of the data are organised into memos.

## Elaborating the Analysis

The more I worked with the data, the more frequently I had insights into possible meanings of the data. Insights occurred at unpredictable times and places. Therefore, I decided to carry my journal with me all the time, always prepared to jot down ideas as they emerged. During the early stages of the analysis, I was constantly revising my analyses. I was carrying a lot of different ideas in my head. By organising my memos and coding the data as concepts into NVivo 8, I was able to rearrange the concepts as often as needed. This was made possible because the list of concepts and a log of memos were easily accessible through the software. However, I cannot emphasise enough that I was the research instrument: the computer software programme could not do the thinking needed in order to move the research ahead.

In coding each interview transcript, observation note and blog, I came up with new concepts and probable categories<sup>29</sup>. For instance, I started analysing my field notes and a few transcripts of interviews with students of the case study school. I initially came up with some concepts that included: “teachers”, “students”, “philosophy”, “funding”, “leadership” and so on. Subsequently, I came up with a category for these concepts, called the “CHR<sup>30</sup> environment”. Therefore, concepts that pertained to the same phenomenon were grouped to form a category. However, not all concepts could become categories. According to Corbin and Strauss (1990), categories are the cornerstones of developing a theory and they provide the means by which a theory can be integrated. Here is an example of how categories have been formed. While coding, I noted that concepts such as “dedicated teachers”, “sufficient funding”, “good infrastructure”, “supportive leadership” and “MOE’s support” may not be in the same form but they seemed to represent activities that directed a similar process; that is, things that made the school’s outdoor education programme work. I therefore grouped them under a more abstract heading, the

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<sup>29</sup> Categories are coded as tree nodes in NVivo 8.

<sup>30</sup> CHR is the abbreviation for Christ Church Secondary School.



category: “enablers of the RACE<sup>31</sup>”. However, grouping concepts under an abstract heading does not constitute a category. In order for the abstract concept to achieve the status of a category, I needed to develop this abstract concept in terms of its properties and dimensions of the phenomenon it represented, conditions which gave rise to it, the interaction by which it was expressed, and the consequences it produced (Corbin & Strauss, 1990). For instance, once the category was identified, I set out to find the characteristics of the “enablers of the RACE”: Are they equally critical to the success of RACE? How are the enablers different in a different school? Under what circumstances will these enablers not work in the school? What are the consequences of removing some or all of the enablers?

At that stage of my analysis, I also accumulated a lot more analysis-derived questions that needed to be answered. During my interviews with the staff of the school, I began to question MOE’s role in the overall vision of the school to provide a rich outdoor education experience for their students. I realised that such questions need to be contextualised, which meant that I had to extend my investigation and examine broader and more macro issues. It was that line of logical thinking that led me to “theoretical sampling” (Corbin & Strauss, 2007, p. 143) where I sought out pertinent data to develop an emerging theory (Charmaz, 2006). In this case, the purpose of theoretical sampling was to collect data from people who maximised my opportunities to develop concepts. I therefore arranged for three additional interviews with past and present staff members from MOE. I was convinced that in order to understand the outdoor education experience provided in schools, I needed to seek the perspectives of the policy-makers.

At that juncture, I also built up some of the more micro-contextual factors in my categories such as “enablers” and “challenges” of the implementation of outdoor education in the case study school. However, an understanding of the larger sociological and political picture and its impact on the school environment was still

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<sup>31</sup> The outdoor education activities in the school were collectively called RACE programme.

very much lacking. In the next section, I will focus on the macro issues in the data production and analysis.

## **Analysing Data for Context**

What intrigued me at this stage of analysis was the idea of moving forward and backward with the data. I drew upon the content of the literature review for analysis and linked them to other concepts that have emerged from the data. I speculated that my sensitivity grew with my exposure to the data. Corbin and Strauss (2007) use the analogy of peeling an onion to describe the analyses of data. Hence, every layer that was removed from the onion took me closer to the core. What I found interesting were the changes in myself since the beginning of the research. I became emotional about the happenings in the case study school as if I were part of the school system. I began to feel for the participants as I worked with the data. For instance, I empathised with the teachers who faced obstacles while trying to implement the outdoor education programme in the school. I also felt angry when students told me about how students who did well academically were being ostracised and bullied by their peers. I realised that I could not assume the position of a detached researcher, but also that I should not act upon these emotions.

I wanted to understand what made the outdoor education experience in CHR peculiar to Singapore. I realised that context meant more than writing a chapter citing historical events as background material. I was interested in how the outdoor education experience in CHR has its foundation in the historical, political and social conditions that set the tone and policies for outdoor education in Singapore. I revisited the literature and produced some memos, which were subsequently coded along with other data. For instance, I traced national imperatives on outdoor education back to the early days of independence when the late Dr Goh Keng Swee launched the first Outward Bound course in Singapore. Hence, it is this context of “National culture” that I found the school to be operating within.

Although this study does not present every condition of the case, I have provided sufficient background to allow the reader to understand the outdoor education culture in CHR, be it in terms of “National imperatives”, “MOE policies” or “National culture”. These conditions characterise the CHR environment for outdoor education.

## **Bringing Process into the Analysis**

I reread the memos from previous analyses to create a summary memo of the main issues. For example, I wrote a few summary memos on the tension felt amongst some of the “enablers of the RACE”. Although many of the teachers and students acknowledged the potential of outdoor education, there was tension between this acknowledgement and what they also saw outdoor education to be; that is, as a “distraction from the academic focus”. I therefore categorised “distraction from the academic focus” as one of the “challenges of the RACE”. Writing memos helped me to clarify the patterns of ongoing action, interaction and emotion in participants and helped me to discover how the participants have managed to deal with this tension. The memos also encouraged me to go back and forth between data and my analyses and to relate them to other categories.

I constantly made comparisons between data about what participants have said and done because I might bring different perspectives to the data (Charmaz, 2006). One of the reasons I chose to code the full interview transcriptions was because I believe that the process deepened my understanding of the participants’ actions, interactions and emotions. For a beginning researcher, transcribing entire interviews had some unanticipated benefits. For instance, my first reading and coding of the data did not have to be the final one. Moreover, I drew on my transcripts to verify participants’ views and actions. The transcripts also helped me retrieve specific segments of audio recordings of the interviews if I needed to listen to them again.

I am aware that the emphases imposed on the data have been influenced by my own experiences and underlying ideological commitments and values. However, the most important thing is not what conceptual labels I have applied to the data but whether I have applied a defensible analytical logic to my choices of concepts and their processes. Although there are “different ways of conceptualizing process” (Corbin & Strauss, 2007, p. 261), I personally find that looking for patterns by studying the memos to be an effective way to conceptualise processes. Once I have found the processes in data, I was able to put them together conceptually to add to my understanding of the phenomenon.

## **Integrating the Categories**

During theory construction, data reduction enables a data set to be represented by a manageable number of relevant categories (Corbin & Holt, 2005). As the analyst, I grouped concepts into categories by asking questions and looking for commonalities between concepts. For instance, I built 14 categories of concepts in this study. However, I did not consider all categories to be core categories. A core category represents a phenomenon, which is to be the main theme of the research (Corbin & Strauss, 2007). The data were then “reduced further by synthesizing them under an even more abstract concept, the core category” (Corbin & Holt, 2005, pp. 50-51). Constructing the core category is termed selective coding because the analyst must choose the most representative construct among many possibilities. For example, after I reflected on the categories, I chose “potential of outdoor education” as a core category. It seemed to me that RACE and outdoor education was occurring in CHR because participants saw the “potential of outdoor education” despite the challenges and tensions that confronted them. Once I had identified a core category that could offer a plausible explanation for why the school placed great emphasis on outdoor education, I proceeded to see how the other categories could be linked to it.

I found integration to be the most difficult part of the analysis. I sorted through the memos to look for cues as to how all the categories might fit together. At that point,

I tried all the techniques that were recommended to analysts, including rereading memos, drawing diagrams, creating story lines and thinking. I created diagrams to visually examine relationships between categories. I reviewed my memos and notes time and again to compare them with the emerging theory. Juliet Corbin and Nicholas Holt (2005) explain that developing grounded theory is lengthy and time-consuming and that a researcher must be comfortable with ambiguity until the analytic story falls into place. This rings true for me as I needed to work and rework the theory again and again until the analytic story “felt right”, at least to me and the participants.

## **Summary**

I have described the procedures that guided data analysis in this study. However, they were not a set of directives to which I rigidly adhered, lest compromising the dynamic nature of qualitative analysis. Corbin (2009) reminds us that “the analytic process is first and foremost a thinking process” (p. 41) and this analytic journey allowed me to step into the shoes of the participants and see the world from their perspectives. Although I have approached my analyses based on a set of procedures, I have also allowed my analyses to be flexible and driven by insights gained from my interactions with the data.

## **Chapter Five:**

### **The Case Study**

In chapter two, I discussed the wider outdoor education literature, the history of Singapore and some of the major educational reforms that have occurred in the nation as a context for outdoor education in Singapore. This chapter shifts the focus to the specific research site, namely, Christ Church Secondary School's outdoor education programme. I use thick description to provide a narrative account of each of the activities in which I participated and the roles I played in these activities so that the readers can extend their perceptions of the phenomena I have investigated. My description of Christ Church Secondary School's outdoor education programme is intended to convey the culture and ethos of the school and to build a contextual background, which is an important aspect of case studies (Creswell, 2007; Stake, 2005; Yin, 2006).

I have also included extracts from students' blogs to provide authentic descriptions of experiences from their points of views. I do not see any plausible reason for using pseudonyms in these blog entries as they can be easily accessed through the school's website. In addition, I have included some photographs to give readers a richer understanding of the school's programme.

### **One Student, One Country, One Mountain**

Christ Church Secondary School (CHR) is a government-aided secondary school located in Woodlands, the northern part of Singapore. The school started as a private Anglican school in 1952 within Christ Church Parish at Dorset Road to meet the needs of those students who had missed the mainstream education. It was renamed Christ Church Secondary School when it became a government-aided school in 1973. Owing to the growing student population, the school moved to Tyrwhitt Road in 1985. It was subsequently relocated to its present campus in Woodlands in 2001. Despite the changes in its physical location and management,

the school aspires to uphold the philosophy on which it was founded, namely, that “each pupil has worth and that his/her growth and development can be nurtured to the optimum” (Christ Church Secondary School, 2008d, p. 4). The teachers and students maintain that the school does not reject any students who want to study in CHR and that the principal is known for his philosophy in taking in students who would like a second chance in studying.

CHR prides itself on the adventure facilities and opportunities that it offers to its students. There is an expectation among staff that all students will take up some of these opportunities. It is one of a few schools in Singapore that is equipped with a wide range of adventure facilities including a flying fox, abseiling wall, rock-climbing walls, a high challenge course and other team-building stations. These facilities were built in 2004 to meet the needs of the school’s focus on outdoor and adventure education. In line with CHR’s mission of “empowering our pupils to become capable men and women, ready for service to the nation” (Christ Church Secondary School, 2008b, p. 18), the school developed its Risk-based Adventure Curriculum for Excellence (RACE) programme (see Appendix D) to build pupils’ core values of perseverance and servant-leadership. Mr Ang Chee Seng, the principal, being a believer in the benefits of outdoor education, sets the vision for the school as a centre of excellence in outdoor education. He tasked the Head of Department (HOD) for Physical Education (PE) and Co-Curricular Activities (CCA), Mr Ho Chee Hoong, to form and lead a committee of teachers to develop a programme for outdoor education for the school. RACE is a result of the school’s vision. This curriculum is designed by a group of classroom teachers who are keen on outdoor pursuits. They were given full autonomy in planning the various activities under RACE. The principal provides the support in enabling these activities to take place.

Since then, CHR has established an excellent reputation and record for providing outdoor adventure facilities and training. CHR is also well known for sharing its technical expertise in facilitating outdoor adventure activities with schools in the northern part of Singapore, as well as schools in the surrounding region such as

Karimun island, Indonesia, and Shandong, China. According to the niche application report by CHR (2008b), it was recognised by MOE as a Centre of Excellence (COE) for adventure education in 2007.

The CHR (2008d) student handbook states that one of its key promises to students is that they will be able to experience at least one mountain and one country (other than home country) in their four to five years with the school and hence the slogan “One Student, One Country, One Mountain” (p. 5). Through RACE, CHR is “committed to instilling a sense of adventure and increasing the risk appetite in both students and staff” (Christ Church Secondary School, 2008b, p. 2). RACE also aims to broaden the cultural awareness and sensitivity of students and staff so that they can interact more effectively with others in the global community.

## **The CHR Experience**

Mr Ang, the principal of the school readily acceded to my request to join the school for a semester for the purposes of this research. Six months prior to my fieldwork, I met with him and Mr Ho, the HOD, to negotiate my entry into the school. I discussed with them the foci of my research and how I was hoping to go about it. I explained that the school would be a case study for my research and that my main interest was to clarify the purposes of outdoor education in Singapore. I explained my intended role as a teacher-aide in the school and although Mr Ang and the HOD were amused with the idea initially, they gave me their full support. I also volunteered to help in the area of professional development of the teachers during my stay with the school.

### **“Re-entry” to school life**

According to Walker (1983), case studies can give a distorted view of the world because they emphasise one set of views rather than another. To minimise such distortion, Walker suggests:



The only way I could ‘balance’ the account I gave was to pursue the documentation throughout the system. The classes I had studied needed to be balanced by equally penetrating studies of locations I have not studied. It is not enough to reveal what happens in classrooms if you do not at the same time reveal what is happening in staff meetings, in the head’s office, in the local education authority and so on... To be fair you almost need a requirement specifying what would count as ‘equal exposure.’ (p.163)

During the fieldwork, I made a conscious effort to minimise such distortion. I observed an array of the school’s activities and took part in as many of those as possible were closely related to the RACE programme. In addition, I made efforts to attend weekly staff meetings, school functions (eg., school anniversary dinner, teacher’s day celebrations), briefing sessions to parents and various committee meetings.

Having been away from schools and working in MOE for the previous eight years, I anticipated that my “re-entry” to school life might be both exciting and challenging. On my first day of reporting to CHR, I was immediately put at ease by the warm and welcoming dispositions of the staff members and students of the school. I was also given unlimited access to the staffroom and assigned a workspace. In the remainder of this chapter, I describe my personal experiences and some of the students’ experiences in a range of activities in the RACE programme.

### **Class camps**

Camp Objectives:

- To bond with classmates.
- To identify the right values.
- To appreciate the environment more.
- To learn some hard skills as well. (Christ Church Secondary School, 2008c, p. 1)

A day before the first secondary one class camp of the semester, I was introduced to “Nanny”<sup>32</sup> Grace, an ex-student of CHR who was employed on a part-time basis to help in the class camps. On that day, we soaked firewood in kerosene for the campfire and prepared the logistics for the camp. As a former member of the outdoor activities club, Nanny Grace was familiar with the school grounds and the RACE programme, and she introduced me to a number of the camp routine rituals. More importantly, her warmth and unassuming attitude put me at ease.

As the camps were to be held in the school, I quickly familiarised myself with locations such as the camp room<sup>33</sup> (see Figure 4), adventure facilities and the various storerooms so that I could be of help during the camps. The camping experience for the students comprises a range of indoor and outdoor activities in the school, with field trips to local parks and adventure centres. Each class camp lasted four days, starting on a Tuesday (which is a warm-up and briefing day), followed by three days of camping experience, where the students slept in the school hall the first night and in tents within the school compound for the second night.



Figure 4. The camp room.

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<sup>32</sup> Introduced to the students as such to give the students a feeling of affiliation.

<sup>33</sup> A classroom that was designated as a room for indoor camp activities (eg., briefings, games and cheers).

The school deployed a full-time teacher, Miss Puah, to design and conduct the secondary one and two class<sup>34</sup> camps. Before taking on this job, Miss Puah taught chemistry in the school. She conducts the class camps weekly for the entire semester with the help of one or two hired instructors and the form teachers of the respective classes. Sometimes, she has part-time helpers like Grace. Miss Puah acknowledged that if she were teaching at other schools, it would be difficult, if not impossible to run class camps like she does for CHR. She is appreciative that the school management has been extremely supportive of providing outdoor education opportunities for its pupils. At the beginning of my period of participant observation, she had just returned from a nine-month Outdoor Education Facilitator course at the Sir Edmund Hillary Outdoor Pursuits Centre in New Zealand that CHR sponsored.

In addition, the school has trained a group of about 30 teachers and staff members, known as the RACERS, in facilitating outdoor activities. During the weekly camps, the RACERS are assigned to conduct and facilitate team-building, rock-climbing, high challenge courses, zip-line and abseiling activities for the secondary one and two students. In addition, specialist instructors for sea kayaking were contracted to teach the skills components in these class camps. Thus, many staff members have an on-going involvement in the class camps and influence on the school's outdoor education practices.

As I walked around the school, I could see that CHR was different from typical schools in Singapore. One of the teachers aptly put it: "The school itself speaks for itself lah<sup>35</sup> having all the rock-walls and all the high elements and all that" (interview notes, 4T<sup>36</sup>, 12.9.08, p. 2). The school is not only equipped with the adventure elements, it is also decorated with colourful motifs, depicting what CHR stands for.

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<sup>34</sup> Students of these levels are of 13 to 14 years of age.

<sup>35</sup> An expression in Singlish to mean "of course".

<sup>36</sup> 4T means that it is the fourth interview of the study and with a staff member of the school. S is used for interviews with students and M for interviews with MOE officials.



had some unique characteristics resulting from the different dynamics of student interactions within each class. All of the class camps began in a similar way: after the school's assembly at the parade square, Miss Puah would lead the class of 40 to the camp room, where she would introduce herself and the people who would be assisting her, such as Nanny Grace and me. Some of the campers also called me Nanny by the time I completed the third camp. Miss Puah would make some changes in the line-up of activities, such as in the cheering and initiative activities, especially when they were not well-received by the students. To help the class get into what Miss Puah described as "camp mode", the students were taught cheers and initiative activities to warm up. The students' energy and enthusiasm for these activities was usually palpable and infectious; and I often found myself cheering along with them. While I did not have any difficulty getting into Miss Puah's camp mode, I observed a certain degree of reticence in some of the students during the cheering and initiative activities sessions. I think that not every student in the camps was comfortable with cheering and initiative activities that require socialisation into ritual behaviours.

At the beginning of the camp, Miss Puah discussed the objectives of the camp and asked the students to familiarise themselves with the five tenets of the Full-Value Contract (Christ Church Secondary School, 2008b), which are: Be present. Pay attention. Speak your truth. Be open to outcomes. Create a safe environment. Miss Puah's emphasis on the tenets of the Full-Value Contract (FVC), which in effect constitute a set of ground rules for the camp and sets the tone for the class camps in CHR. On the same day, students were briefed about the camp activities for the next few days. The students appeared to accept and agree to the tenets of the FVC. I observed that the students were generally well-behaved and respectful of their teachers and peers during the camp. For example, when one or two students became distracted during activity review sessions, Miss Puah only needed to remind them of the tenets, upon which these students would become mindful of their behaviour again. None of the students attempted to challenge the tenets of the FVC at the camps.

For most of the activities, I accompanied and observed the students, recording immediate observations with photographs and field notes. However, I did join some of the kayaking sessions and lead some of the groups on Bukit Timah Nature reserve hikes and treetop walks. My informal interactions with students were particularly revealing: for example, some students told me how much they disliked walking in the jungle and that they did not understand why I could admire leaves and butterflies. On one occasion, a girl screamed and ran away frantically when I pointed out some butterflies to her. I had not realised that organisms that I only think of as beautiful and harmless, such as butterflies, might produce fear in other people. On another occasion, I was chatting with a few students along the way to the tree top walk when we spotted a monkey eating a durian by the side of the trail. The students who witnessed it were thrilled and could not stop talking about their encounter that entire day.

Below are a few photographs (see Figures 7 to 9) that I have taken during my time spent at the class camps. They are portrayals of camaraderie, adventure and fun experienced at the camps, which are also resonated in some of the students' blogs that I have read.



Figure 7. Orienteering at a park at Changi Coast.





Figure 8. An attempt at the rock-wall.



Figure 9. Zipping down the Flying Fox from the fourth storey.

I include two students' unedited blog entries in which they share some of their feelings about their class camp experiences.

It was fun having the Sec One camp. On the first day, I had alot of fun. We played many interesting games. But the trust game was the one that I found most exciting. We had to let our friends push us around and believe that they will push us back safely. For the second day, we went kayaking. It was especially fun when we were told to capsized our kayak. I learnt that in life, we have to be aware of our surroundings. We must have teamwork and communication. For the outdoor cooking, I learnt that we have to plan things out first before doing them to prevent problems. Proper planning prevents inadequate performance. For the third day, we went to Bukit Timah Nature Reserve. It was a tiring hike but it was fun. After the hike, we went back to school for the High Ropes Course. It was challanging trying to conquer it. By trying the rock climbing, I learnt that there are many alternatives in life and it is up to us which one we want to use. On the fourth (and final) day of the camp we played a ballon game. From that game, I learnt that we should not let what others do bring us down. Our succees and failure is based on what we do, not what others do. I also want to say thanks to those who made the camp fun and enjoyable. It was fun having you guys around.

Posted by Spartan-117 at **3:21 AM 0 comments**

DAY 1,

Wizard and dwarfs game! Heh. Was fun :) Next game, buddies up. Had siwen as a game partner. Was glad to have her :) Straight after that was early recess. Yay! Went to the rockwall after that to learn some cheers, and up to the camp room. Had briefing about what to bring for the next day and so on. And went home!

DAY 2,

Brought a lot stuff from home. Went straight to Changi Coast to kayak. Had briefing and after that we went to take and put on our PFDs. Carried our kayaks. It was heavy but me and Jade managed to carry it anyway :) So we had to go to the sea to try out how to float and stuff. After that, kayaking time! Man it was tiring. Jade and i were kind of seasick and was super tired. So after kayaking we went to settle down and carried our kayaks back to where it was. Thank you Jade for being a great kayaking partner! I love you :) Had outdoor cooking after that! Had magee noodles. It was drizzling for awhile so we had to go into the shelter but after that it wasn't drizzling anymore so we went out to cook. Ahpa helped Siwen and I to lit up the solid fuel. Thanks Ahpa :) After eating and stuff we went to play our navigation game. It kept raining so MummyPuah gave us a poncho. After playing we went



back to school to eat our dinner. Had a knot tying game after. Went to wash up and pitched our tents in the parade square, and then we had our beauty sleeps! :)

DAY 3,

Had a tree top walk! Saw how beautiful nature was :) Saw some cute little creatures too! For example a little squirrel who kept squeaking haha. After tree top walk, we went back to school and started our high ropes course. I overcame my fear of heights! First had flying fox, rock climbing then abseiling. During flying fox Alan was super funny. He went to shout "Hallelujah" and jumped. He broke a tree branch while on his way down. Haha. Poor tree branch xD

Rock climbing was fun, but tiring. I managed to climb to the top! Yay.  
KIMBERLY IS THE ONE THAT IS MIGHTY, NOT HAIQAL :) Abseiling was high and scaryyy~ But overall, was still fun. Went down from the 4th floor to 1st floor with Siwen.


After ropes course, CAMPFIRE!! Had to plan out some drama. Had around 1 hour to discuss. After discussing had CAMPFIRE!! It was the best of all. All of us were super crazy and hyper. Haha. It was super funny :) WOOO! I love saying all the cheers, just being free and going crazy. We acted our dramas and stuff, had our supper, and slept in the hall.

DAY 4,

Woke up, packed all our sleeping bags, and went to the place near the plaza to do some morning exercises, without even brushing our teeth yet! Haha. Had a 1 round morning jog around the field outside our school, and then we went to wash up, brushed our teeth (finally) and everything. Had a morning surprise in the camp room! We wrote down all the things that stresses us out on the balloon and we played a game with the balloons. The rules are that we cannot let the balloons drop on the ground. Our group's timing was the longest and we won! Yayyyy :) We did some reflection and was dismissed :(

Okay. I learnt a lot from the camp! Well i learnt how to co-operate with one another, how to overcome fears, and how to have A LOT of fun (well actually i learnt that a very long time ago)!

A big thank you to MummyPuah, Miss Suzanna (heh i dont know how to spell it), Ahpa and NannyGrace :) I love you all. And thank you 1E3!  
And i have come to realise that, i love 1E3 to death :)  
1E3 IS SO MIGHTYYYYYY!

Posted by KIMBERLY at 12:04 AM 0 comments 

According to the camp booklet, the class camp experience is intended to help the students develop team-bonding and acquire effective teamwork skills and attitudes. The camp also aims to develop students' interpersonal skills, self-awareness and resilience, and increase their self-confidence and self-esteem. The camp comprises a series of indoor and outdoor activities including tent-pitching, knots and lashes, kayaking, orienteering, first-aid, games, adventure experiences, campfire, reflective journaling and civics and moral education. In fact, the class camps for the secondary one and two classes are part of the Civics and Moral Education<sup>37</sup> (CME) curriculum in CHR. Therefore, the students' participation in the camps, their essays on environmental issues and their blog entries about the camps are included in determining their final CME grades.

One of the intended outcomes of the camps is that the students build strong rapport with teachers, instructors and helpers. Even though I did not play a major role in the camps, some of the students continued to acknowledge me by greeting or chatting with me when they saw me in the school. On most of these occasions, students made unsolicited comments about how much they missed the class camps and some were so keen to repeat these experiences that they asked if they could join other class camps. Such incidents provide anecdotal evidence of the students achieving the rapport-building outcomes. Other specific outcomes are described and discussed more fully in later chapters.

### **Overseas community involvement programmes**

The overseas Community Involvement Programme (CIP) is part of the bi-cultural education programmes in the school, the objectives of which are stated in the student handbook as:

- Improving understanding of self and others.
- Increasing experiencing and appreciating of foreign cultures.

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<sup>37</sup> In Singapore, values education mainly takes the form of the subject Civics and Moral Education. Students at secondary school attend two 35-minute lessons per week and are given a grade at the end of each year.

- Improving knowledge of global events.
- Widening individual perspective.
- Building a deeper understanding of Regional Countries.
- Building social and learning ties with peers. (Christ Church Secondary School, 2008d, p. 16)

I participated in one secondary three CIP overseas trip to Karimun island in Indonesia (see Appendix F for schedule).<sup>38</sup> Besides the form teacher, there were four other teachers who accompanied the class of 32 students. The organisation of the trip was sub-contracted to a service provider with contacts in Karimun island. The school has used the same service provider for this programme since it started in 2004.

We were told to report to school at 6.00am to provide ample time to catch an 8.00am ferry to Karimun island. However, we were delayed by a massive traffic jam on the way and arrived at the Harbour Front ferry terminal half an hour behind the scheduled time. This necessitated a somewhat chaotic and stressful dash for the harbour with our bulky luggage, although in retrospect, we saw the amusing side of this incident. The ferry ride to Karimun island lasted about two hours but seemed an eternity for a majority of students and teachers who suffered from motion sickness as the ferry manoeuvred through choppy waters.

As soon as we arrived on the island, the students were whisked off in two local buses to two different local schools. I accompanied the students who were deployed to the gifted school in Karimun island. We were told that the students in this school could read two paragraphs from a simplified Enid Blyton storybook and could retell the story with some prompting. The CHR students went prepared with Scrabble sets and intended to get their Indonesian peers to play games using English. I observed that some of the CHR students were able to engage the local children in using English to introduce themselves and playing word games.

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<sup>38</sup> Such trips are relatively expensive and I was required to self-fund any in which I participated, so it was not possible for me to participate in more overseas trips with other classes.

However, some other CHR students appeared to be frustrated by receiving only lukewarm responses from the local students. On the whole, the Karimun students seemed to enjoy the English lessons with their Singaporean friends and they clapped and cheered when they heard that the next CIP visit to their school would be in two days' time. The two photographs in Figures 10 and 11 show the Karimun school that we visited and some of the CHR and Karimun students interacting.



Figure 10. A school in Karimun island in Indonesia.



Figure 11. CHR students and their Indonesian peers in the classroom.

After spending about three hours in the schools, the class took a bus to the local guide's house for a much-appreciated home-cooked meal. We checked into Padi Mas Hotel after lunch where I shared a room with the form teacher of the class (which provided further opportunities for informal discussions about the class and its activities). After a short rest, the students were assembled for a geography field trip. At this point, a number of students and staff expressed some anxiety about the much-anticipated trek to Mount Jantan scheduled for the following day. For instance, one student told me about his allergies to various plants and his concerns about his medical fitness to climb Mount Jantan (as I was only an aide on this trip, I referred him to the teachers and guides to decide if he could be exempted). Some of the teachers also said that they would not be fit for the climb as they had injuries and/or other medical conditions.

The field trip addressed issues such as land cultivation and river systems that were part of the Geography syllabus. Students were given worksheets on these topics to complete. I was a little surprised that the students were expected to answer questions that required some pre-requisite knowledge in Geography when only half of the class took Geography as a subject. Nevertheless, it was a learning experience for all, including the non-Geography students who tapped upon the knowledge of their fellow classmates. The photograph in Figure 12 shows two of the students who volunteered to measure the river's depth.



Figure 12. Measuring the depth of the river.



Day two of the trip included a trek to Mount Jantan, which commenced at 9.00am and took five-and-a-half hours to complete. Although a few of the students found the trek quite easy, a majority found it to be more difficult because it was their first attempt at climbing a mountain. During the trek, each group of 10 students (see Figure 13) was assigned a local guide. The guide not only tried to ensure the safety of the group but also pointed out various plants and features throughout the trek. I spotted some pitcher plant flowers bigger than the size of my palm and many colourful insects along the way. There were also quite a few good look-outs (see Figure 14). However, I observed that the students were either too tired or too bothered by the unfamiliar terrain to take in the sights. Many of the students I spoke with had very little experience in the outdoors. When we arrived at the summit, the students were disappointed to find a rusty and disused tower (see Figure 15), which they were told to steer clear of. We rested at the summit for about half an hour and then gathered for a class photograph (see Figure 16) before making our way down.



Figure 13. Trekking up in groups of ten.



Figure 14. Look-out on the way.



Figure 15. Disused tower at summit.



Figure 16. Class photograph at the summit of Mt Jantan.

Many of the students struggled to stand up and walk down the steep slopes and some even chose to slide down the slopes on their buttocks! When they reached the

foot of the mountain, their pants were covered with mud. At the end of the trek, we came across a food stall where we settled down to have lunch, after which we needed to head towards the junction so that the bus could pick us up. Many of the students claimed that they were too tired to move another inch. Although many students complained about their discomfort during the trek and how disappointed they were when they saw a disused tower at the summit, most of them shared that they enjoyed the trek and felt a sense of achievement.

On the final day, I did not join the students for the second visits to the local schools. Instead, I accompanied a different group of teachers in a reconnaissance of the island as part of the planning for an adventure race event (another kind of adventure began when we missed the ferry back to Singapore after the reconnaissance!).

### **Camp Echo**

Camp objectives:

- Enable students to increase their level of self-awareness and self-control.
- Build quality relationships among students and teachers.
- Build a closer bonding with own teammates whereby they could get to know one another better in an enclosed area.
- Accept each other's behaviors (eg., snoring, sleeping postures etc.) and inculcate the values of tolerance.
- To develop the sense of responsibility among the students.
- Expose students to ways to manage their socially unacceptable behaviours.
- To reward students who show [sic] as a form of encouragement. (Christ Church Secondary School, 2008a, p. 1)

Held annually for the past eight years, Camp Echo, is organised by the beginning teachers of the school for a selected group of boys in the lower secondary levels.



Mr Ang, the principal, mooted the idea of Camp Echo<sup>39</sup> to help students build quality relationships with their teachers and, in doing so, enable them to exercise more control over their emotions. He also believes that such a camp creates opportunities for beginning teachers to understand students better. In the principal's letter to the parents, he explicitly states that the camp is intended to help the selected boys "become more sensitive to the people around them and to solve interpersonal problems" (Christ Church Secondary School, 2008a, p. 78). Of the twenty or more boys who attended Camp Echo each year, more than half were recommended by their form teachers due to their lack of ability to control their anger. Based on the recommendations, the school discipline committee and/or counsellor decided upon the list of students for the camp.

In my conversations with students selected for this year's camp, several told me that they had attended Camp Echo previously, and knew what to expect. To give the readers an idea of how some of these students perceive the camp, I have included an unedited pre-camp blog from one of the students, who nicknamed himself "iamxconvict".

*1. How is this camp I am going on, suppose to help me in my learning about:*

*a. Myself*

*b. Others (your classmates going on the camp with you)*

*c. The environment I am going to experience (camp site/ activity sites)*

*2. What am I concerned about myself when I go on this camp?*

*3. How can I make use of my strengths to help me get the most learning out of this camp?*

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<sup>39</sup> The principal intended Camp Echo to give students an opportunity to "express their true feelings and emotions" during the camp. The name Camp Echo was coined by the first group of teachers who planned the camp. These teachers reasoned that the word "Echo" resonates with the students' "voices from within" and their desire to be heard and understood. (personal communication, 10.12.2010)

***4. How can i work with my classmates and my teachers to help me get most learning out of this camp?***

***Answers:***

***1.a. Control Anger . (can control but got limit, if over limit can't control)***

***b. build rapport . (make a lot of good friends)***

***c. how i know ? haven't go yet ...***

***2. go before once ... experienced all ...***

***3. try to use my brain to do things ... and think a lot, have fun ...***

***4. try to understand them ... and let them understand me ...***

**Posted by iamxconvict at [1:00 AM](#) [0 comments](#) **

Most of the preparation for the Camp Echo I attended was conducted in the first semester so I did not have the privilege of witnessing the process. The beginning teachers told me that they spent many sleepless nights preparing for this camp. From the teacher's manual (Christ Church Secondary School, 2008a) and my conversations with these beginning teachers, I could tell that there was careful thought and extensive effort in the planning of this camp. The teacher's manual includes detailed objectives, logistical needs, and a description, execution plan and safety considerations for each activity to be carried out. The manual also includes notes on how to reinforce positive discipline and tips on debriefing and anger management. To describe every detail of Camp Echo would probably take up the entire volume of this thesis, so I will focus chiefly on the events and activities that will inform my research.

This year's Camp Echo was held at Mawai, a rustic village (off Kota Tinggi in Malaysia), tucked away from civilisation. Twenty-three teachers and 26 boys embarked on this camp after the school's teachers' day celebration concert on 31 August 2008. I was familiar with the camp's location because I have conducted a number of professional development courses for teachers at the site during the past

eight years. The guides who led this trip also knew me and were happy that I was joining them. However, I was a little concerned that my familiarity with the guides might make other teachers feel uncomfortable, so I tried to enact a role that was closer to “teacher” (or teachers’ aide) than “guide” during this trip. We set off two hours behind the scheduled time because the teacher’s day concert ended late. The teachers were worried because they knew that the campsite did not have any electricity and that they might need to settle into camp in the dark.

During the bus journey, the teachers discussed at length the activities to be retained and those that could either be scrapped or postponed. The first activity “kidnapped” (see Figure 17) was carried out as soon as we reached the venue. We arrived at the venue at six o’clock in the evening and I knew that we would probably have another hour of daylight to complete this activity. In this activity, the students were blindfolded prior to alighting the bus. These students were then led to the jetty by a group of teachers (see Figure 18).



Figure 17. “Kidnapped.”



Figure 18. Being led to the jetty by teachers.

A small boat was waiting at the jetty to take the students across the river to the campsite (see Figure 19). The students could take off their blindfolds only when they had reached the campsite. I could hear the students asking their teachers if they would be safe and if they could take a step forward and so on. I could see that the teachers were genuinely concerned about the safety of the students, holding them and leading each step. This activity developed trust and respect between the students and teachers right from the beginning of the camp. I observed that the students were more at ease with the teachers after this first activity and were responsive to the teachers during the activities after dinner.



Figure 19. Crossing the river to the campsite.

The camp commandant, who was one of the teachers, was keen to carry out the planned water obstacles activity even though it was getting dark. He came to seek my advice since I am a specialist with MOE, but I encouraged him to consult his committee members and to come to a decision as a team. I was concerned that I did not offer any useful advice but I was caught off-guard and did not know how to respond at that particular point. I gathered my thoughts while the teachers deliberated on this issue. I went to the guides to clarify my role in the camp and explained that I would not be comfortable with asserting my specialist MOE role in the camp. The guides would therefore have to offer their expert advice to the teachers where appropriate. This was one of the many occasions on which I needed to monitor the effects of what Pillow (2003) describes as the power relationship. Nevertheless, I was relieved when the teachers decided to postpone the water-obstacles activity to the final day of the camp. I would have raised my concern for the students' safety if the teachers had decided to carry out the activity in the dark.

A feature of the camp that caught my attention was the idea of merit and demerit points in the form of "Mawai dollars". Upon arrival, each student was awarded 50 Mawai dollars. The teachers were also given 300 Mawai dollars so that they could reward the students at their discretion. They could also take away these Mawai dollars from the students if they were found to have breached a rule. When in doubt, they could refer to the teacher's manual for the merit and demerit points system. I was also issued the Mawai dollars. I did not realise how much these Mawai dollars mattered to the students until I issued the first reward!

In addition to the activities planned for the next two days, fire-drills and raft-building were among the activities to be carried out in the evenings (see Appendix G for camp schedule). The three-day camp was so packed with activities that the teachers needed to roster themselves to take charge of the different activities. On the second day, a trek to Mount Arong was planned. Figure 20 shows the students warming up for the trek.



Figure 20. Warming up for trek.

However, I found that the teachers and students were not adequately prepared for the experience. The guides packed lunches in boxes for all to bring along but no one seemed interested in bringing along their lunch. Only one teacher, the guides and I brought our lunch. The rest found it a hassle to carry the extra weight for the climb. In fact, the students shared their daypacks and some of the teachers carried only waist pouches for the trip. As none of the teachers have been to Mount Arong before, they depended on the guides who assured them that the trek would be an easy one.

However, the trek took a longer time (more than six hours) to complete than expected by the teachers and students. At the summit, those of us who brought our lunch ate while admiring the spectacular view of the South China Sea (see Figure 21). We offered to share our food with those who might be hungry, but none of them accepted our offer as they felt that they could wait until they got back.





Figure 21. View of the South China Sea from the summit.

On the way to the resting point, we walked past a beautiful stretch of almost pristine beaches. “Most of the boys went ahead to have a swim in the water. Some boys were punished for uttering vulgarities and the group of them was lined up on the beach to do push-ups. It was such a hilarious sight. I took a photograph (see Figure 22) of the scene” (fieldnotes, 30.8.08). We reached the resting place at 3.00pm, where we stopped for lunch and refreshment before taking the bus back to the campsite.



Figure 22. Punishment on the beach.

For the final night, the students were treated to barbequed food and a campfire. One of the highlights of the campfire was an “auction” in which students could bid for snacks and canned drinks with their Mawai dollars. I was amused to observe how groups of students started to form alliances in order to purchase the most coveted items. The night ended well with everyone sharing the food and drinks bought. Everyone went to bed happy. However, the students were surprised to be woken at the break of dawn for a raft-building activity. They were divided into groups, each of which was given limited equipment such as barrels and ropes to build their rafts. The majority of them sprung into action, but a few boys appeared to be half-awake and sluggish, and the teachers punished those who were not helping their peers. By 6.00am, the majority of the groups had managed to build the rafts they designed and they even got to launch their rafts in the pond (see Figure 23). The group that was being punished could not complete their raft (see Figure 24), and were not allowed to go for their breakfast and other activities until they had launched their raft.



Figure 23. All set to launch the raft they have built.





Figure 24. Stuck in the mud.

By the time they managed to complete the task, their peers had already proceeded to other activities of the day. One group had gone to a jungle trail while another was enjoying the water obstacles (see Figure 25). What I took away from this particular incident was that the boys were held to task and not let off until they had completed the task.



Figure 25. Water obstacles on the final day.

Camp Echo was one of the activities in the RACE programme that left the deepest impressions on me. Although the teachers who ran the camp were young and inexperienced, they proved to be adept in managing the boys and resourceful in engaging them. In CHR, getting the beginning teachers involved in the planning of Camp Echo was the very first step towards professional development.

## **Professional Development for RACE**

A majority of the staff members in CHR was exposed to the high challenge course and team-building activities. These opportunities were made available during weekly staff meetings. It was one of the ways to recruit teachers for the RACE team. A few teachers told me that those who expressed interest were selected and then developed professionally.

Professional development for the RACE staff was introduced progressively from 2003. In addition to undertaking the MOE instructor's course to be trained as facilitators of adventure activities, key RACERS also had opportunities to go for overseas attachments. In 2005, two of the RACERS were sent for an ice-climbing course in the Academy of Ice-climbing in China. In 2006, one of them went on a two-week training attachment in New Zealand. In 2007, another RACE staff member was sent for a nine-month Outdoor Education Facilitator course at Sir Edmund Hillary Outdoor Pursuits Centre in New Zealand. According to the CHR (2008b) report, the plan was to support key RACERS for such post-graduate courses. It is hoped that the professional development of RACERS would enable them to design and implement quality outdoor education programme in CHR.

## **The RACE Syllabus**

RACE is a school-based adventure programme at either local or overseas locations for CHR students. According to the CHR (2008b) report, RACE caters to the whole-person development of students from secondary one to five. It provides a structure for activity-based modules that promote CHR students' intellectual,

emotional, social, culture and adversity competence. The RACE syllabus includes certification courses in sports climbing, kayaking and first-aid skills, orienteering, swimming and life-saving skills. Besides attending the week-long class camps, survival swimming and water-safety modules are important components of the lower secondary RACE syllabus. By secondary three, all students would have been engaged in one CIP to Karimun island and climbed at least one mountain during the trip. In addition to the compulsory RACE modules, students in CHR are encouraged to take part in RACE-related enrichment activities (eg., archery, in-line skating, self-defence tactics, white-water rafting, wind-surfing and overseas outward bound courses). Mountain-climbing expeditions to Mount Kinabalu and Nepal, and adventure racing are also regular features of the RACE syllabus. However, the mountain-climbing expeditions and adventure racing cater to only small groups of students who have to undergo stringent selection and training sessions. Through RACE, students are systematically exposed to increasingly challenging tasks.

According to the CHR (2008b) report, students in CHR are given opportunities to attain various certifications by national bodies. For example, the completion of the RACE syllabus enables students to achieve the National Youth Achievement Award (NYAA), Bronze, at the end of secondary three. NYAA is a national award that aims to encourage young people between 14 and 25 years of age to develop personal qualities of self-reliance, perseverance and a sense of responsibility to themselves, to society and to the nation. RACE aims to have as many students as possible attain the bronze award of NYAA.

## **Summary**

This chapter has explored, at both the macro- and micro- levels, the social and physical environment of the case study school. By describing the school's overall RACE framework and my personal experience with the selected activities in the RACE programme and staff professional development plans, I intend to give the reader an insight into the school's outdoor education programme and the

experiences shared by the students. In the following chapter, I discuss the findings and interpretations of this study.

## **Chapter Six:**

### **Findings and Interpretations**

In this chapter, I present an analytical discussion of the findings of this study. I begin by describing my rationale for poetic transcription, defined by Corinne Glesne (1997) as “the creation of poemlike compositions from the words of interviewees” (p. 3) as my chosen mode of textual (re)presentation of the data in this study. Thereafter, I describe the process of how I transform the interview transcripts into poetry. In doing so, I also raise issues that poetic transcription poses for textual (re)presentation and interpretation. I interpret the findings of this study using the theoretical interpretive framework described in chapter two. The key research questions of this study are addressed in a number of sections, with a discussion of the categories and subcategories that I have organised from the data.

#### **Alternative (Re)presentations of Data**

In presenting my findings, I move towards a poststructuralist (re)presentation of my participants’ experiences.<sup>40</sup> My (re)presentation of the data in this chapter intends to make clear the contextuality of participants’ voices and the partiality of my interpretations. In presenting my data, I have selected some blog entries by students to convey their perceptions of outdoor education in the case study school. I present these blogs in their unedited forms because they materialise, in written form, thoughts that I assume students have deliberated upon before they uploaded them to the school’s website. Unlike interview conversations, blog entries are personal responses and views and are not susceptible to the influences of an interviewer’s views, questions, feedback or other interactions. Hence, I have decided to present them in their unedited form.

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<sup>40</sup> I deliberately write “move towards” because I do not claim to embrace a poststructuralist methodological position. Rather, I draw on insights from poststructuralist approaches to data interpretation to expand the interpretive possibilities of my study. I use “(re)presentation” to signal the ambiguities that attend such terms as “presenting”, “re-presenting” (presenting again) and “representing” data and their interpretations in textual forms.

I did not plan to experiment with alternative modes of data (re)presentation at the start of this study and did full transcriptions of all interviews. However, upon mulling over the interview transcripts and discussing issues of data (re)presentation with my supervisors, I could not ignore the opportunities and possibilities of using alternative modes (de Vries, 2007) of (re)presenting the data. Therefore, I have chosen to use poetic transcriptions to (re)present the data of this study.

### **Rationale for poetic transcription**

Rich Furman (2004) describes poems as being effective at conveying strong emotion as poems have the propensity to engage readers in a creative relationship that moves them beyond passivity to co-creation. Moreover, Kevin Kumashiro (1999) argues that poetry, more than prose, makes explicit the many ways in which data are constructed. Poetic transcriptions, where form and writer disappear from view, can remind readers not to assume that the words they read are “mirrors of reality” (Nisbet, 2006, p. 13) and raise questions about “authenticity and representativeness of the text and about the power and authority of the author” (Glesne, 1997, p. 214), which are often taken for granted. Poetic transcription creates a third voice that is neither the interviewee’s nor the researcher’s, thereby creating an interpretive space that belongs to the reader.

Although I conducted and transcribed the interviews in English, the speech patterns of my interviewees, who are non-native English speakers, were closer to Singlish. After reading and re-reading the transcripts, I began to appreciate Kumashiro’s (1999) argument that poetry more closely resembles conversational speech, making it (poetry) more effective in capturing a speaker’s speech. Thus, I decided to use poetic transcriptions to (re)present the data because I am convinced that they express the rhythms, figures of speech, breath points, pauses, syntax, and diction of the interviewees more “authentically” than full interview transcriptions, while simultaneously reminding readers that they are my (the researcher’s) constructions.

### **Process of poetic transcription**

This chapter explores differing conceptions and ideas about outdoor education in the case study school and in Singapore. I have selected the data (re)presented in my poetic transcriptions for their contributions to illuminating the participants' perceptions and understandings of outdoor education. In my role as bricoleur<sup>41</sup> (Denzin & Lincoln, 2000), my multiple experiences as teacher and MOE specialist inform my decisions regarding the portrayal of the content of the interviews. As a former teacher, I have particular insights into the nature of challenges about which the teachers and students spoke in their interviews. This process of selecting the transcript excerpts to use in the (re)presentation of my data and the (re)arrangement of the data into poems made me pay close attention to the participants' voices and what they seemed to be trying to convey.

In this section, I describe how the data poems in this study came into being, namely the source of the poems, how the interview transcripts were used and why I made certain decisions in rearranging the transcripts into poems. After reading the transcripts several times, I generated major themes, then coded and sorted the text by those themes. I categorised the transcripts of the interviewees under the different themes in order to capture the essence of what they were saying. I then decided on the transcript that contained the most content related to each theme and transformed it into a poetic transcription. I made a conscious decision to craft poems from the excerpts of one interview at a time so to present a more detailed picture of students' and teachers' experiences that may otherwise recede into generalised theory (Kennedy, 2009).

In order to maintain a certain flow and fluency in the data poems while keeping them succinct, I chose to omit or change redundant words from the transcript excerpts. However, to ensure that I retained the essence of the interviewees' words and meanings, I limited omissions or changes of words from each excerpt to a

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<sup>41</sup> One who uses diverse research methods, ranging from interviewing to self-reflection, to produce insights into socio-political and educational phenomena.

maximum of ten. The words I chose to omit were primarily repetitions or expression words of Singlish (eg., “lah”, “mah” and so on) and those I chose to change were chiefly corrections to tenses or spelling. In crafting the poetic transcriptions, I use line breaks, punctuations, and rhythm of a given line or stanza, to convey the manner in which the interviewees expressed themselves. Therefore, each line of every poem comes directly from the interviewees. My contribution lies in choosing the transcripts to use and in arranging the phrases and stanzas to create the poems. The process described is not the only way to do poetic transcription; it merely outlines some boundaries I set for myself in my experiments.

### **Issues surrounding poetic transcription**

In moving from simply using interviewees’ words to poetic transcription, I am conscious that this might raise issues of validity and may be viewed (from some methodological standpoints) as lacking in rigour. Laurel Richardson (1994) addresses these issues in detail. She explains that in her poem *Louisa May* “all the words, rhythms, and sound patterns come from an in-depth interview” (p. 10). This process, according to Peter de Vries (2007), is in fact similar to more traditional pieces of qualitative research where the researcher quotes and paraphrases from interview transcripts. To ensure that I did not misinterpret my interviewees’ views, I conducted member checks of the interview transcripts via email correspondence. I have used these member-checked interview transcripts with minimal changes and/or omissions to produce the poetic transcriptions.

### **Theoretical Interpretive Framework**

The theoretical interpretive framework shown in Figure 26 is a portrayal of the purposes and functions of outdoor education derived from the literature review in chapter two. These purposes and functions could be subjected to global influences and further interpretations in local contexts. However, it should be noted that the framework presents only the general image of a much more detailed process and thus not all aspects of the literature reviewed are reflected. Although this



framework broadly describes how the purposes and functions of outdoor education could be derived based on the literature review, my interest is in considering if it is applicable in the case study school and/or in the broader context of outdoor education in Singapore in relation to each of the research questions.

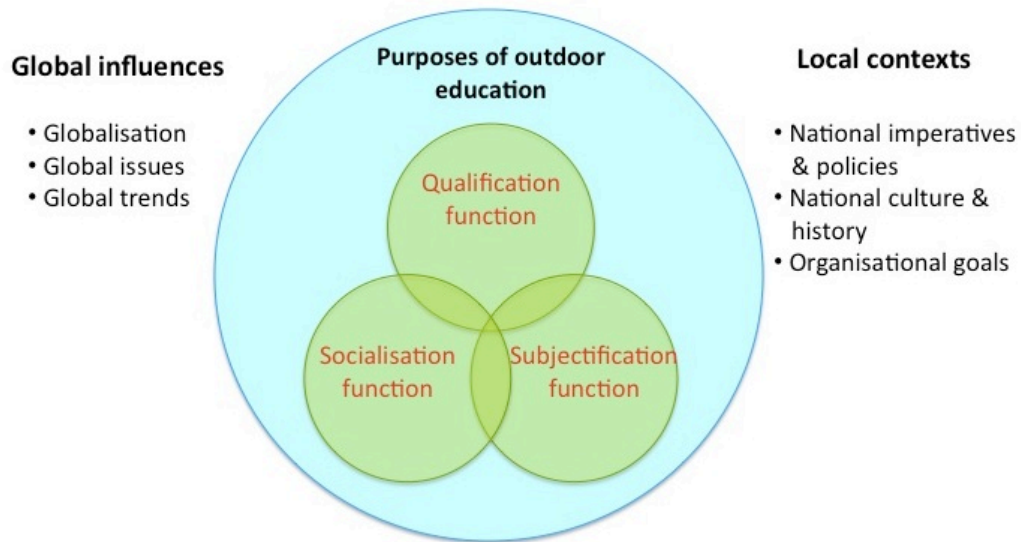


Figure 26. Theoretical interpretive framework.

### Research Question 1: Who and what shape outdoor education in CHR?

Singapore has a centralised system of education for all levels of education, with a Ministry of Education (MOE) that spearheads policy implementation. Although “schooling in Singapore remains largely under centralized control by the MOE” (Vidovich & O'Donoghue, 2003, p. 356), full autonomy is accorded to schools in terms of implementation of policies and their programmes.

The findings of this study suggest that the outdoor education programme in CHR is largely shaped by the school's settings, which I refer to as the environment and the enablers of the RACE programme. According to Itin (1999), the relationship between teacher and student is transactive and they not only interact and exchange ideas, they also learn from the environment and change the environment. The environment therefore includes not only the context but also the larger socio-

political economic systems, and any other system that impacts on teaching-learning processes. The findings in this study point to CHR's environment as key to shaping outdoor education in the school. In addition to creating an environment that is conducive to outdoor education, numerous enablers were also in place in CHR to support its outdoor education programme. I interpret these enablers as the driving forces of the outdoor education programme in CHR.

Figure 27 depicts how the environment and the enablers of the RACE programme shape outdoor education in the school, with the interplay of tensions between the environment and the enablers.

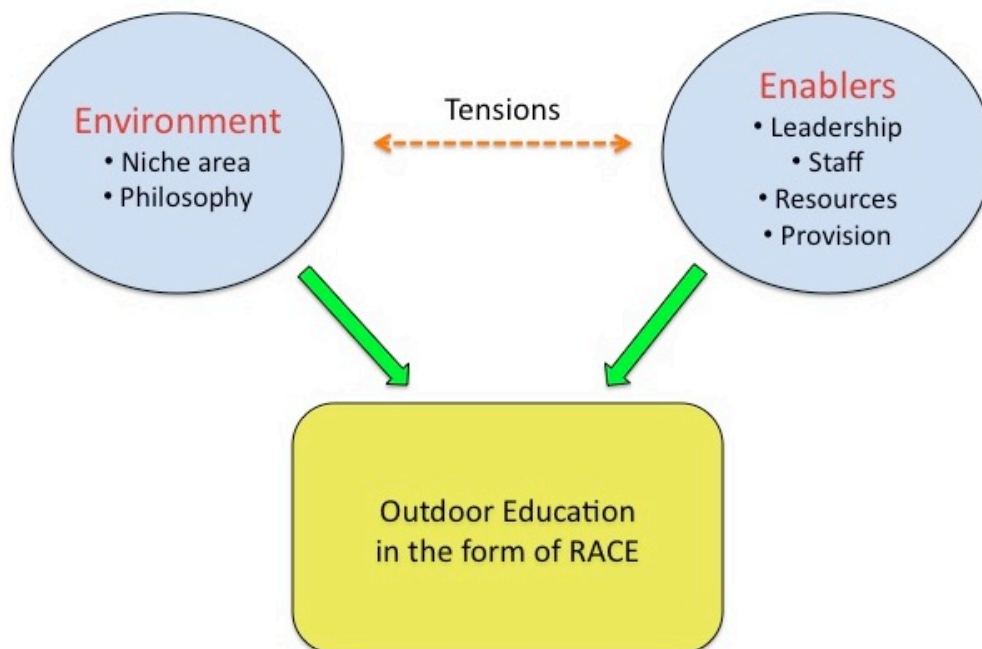


Figure 27. Outdoor education in CHR.

The interplay of these tensions was not easily recorded or observed. I interviewed 20 teachers, 11 students, went on numerous field trips and took on the role of teacher-aide for the outdoor education programme in the school, in order to understand and experience for myself the interplay of tensions. The findings and interpretations are products of the co-creation process of interviews with the teachers and students, observations during fieldwork, students' blogs and my

personal experience in the school. I will discuss some aspects of the interplay of tensions later in this section.

The most challenging task for me was to find out how the students feel and their responses to the school's approach to outdoor education. This is because the "student is always a blind spot in changes in the educational arena" (P.T. Ng, 2004b, p. 80), and yet students, who are well-positioned to reflect on how the system is functioning, also have no voice in the system. Very often, students' opinions are discounted because they are treated as "kids" in a system run by adults who think they know best. Therefore, the discussion on the findings that follows is not solely based on the teachers' and/or adults' perceptions, but it also lends a voice to the students.

### **The CHR environment**

The two subcategories that dominated discussions of what constitutes the CHR environment were its niche area and its philosophy. These subcategories are not presented as the conclusive list of constituents of a CHR environment. They are the two constituents that featured most prominently in the interviews with the participants of this study. Each subcategory will be discussed in the light of how they have shaped the outdoor education programme in CHR.

#### ***Niche area***

A significant aspect of the environment is the niche that the school attempts to create, that is, as a centre for outdoor education. This sense of pride, shared by both teachers and students, provides motivation and support for a positive outdoor education environment. All of the participants I spoke with knew that outdoor education is the niche area of the school. In fact, a majority of them spoke about it with a sense of pride and felt that the niche area defines CHR. To indicate how much they appreciate CHR carving a niche for itself in outdoor education, I have used a transcript excerpt from one of the teachers, Anita, to create the following poem.

I also like the fact  
that we have a name for ourselves in this area,  
that we have many schools coming here to take part in the thing,  
that there are many instances when I'm in the classroom teaching,  
and a screaming Vietnamese girl will just fly by the window  
and the whole class would turn  
and look  
and then I'll say  
get back now that the screaming part is over,  
let's get on with the lesson.  
It's very unique.  
And then we hear the chatter  
from the small tiny Chinese students from China,  
very cute,  
the Japanese school girls all lined up  
and going down,  
screaming,  
running around.  
It's a break from  
every day,  
monotonous,  
mundane,  
school life. (interview notes, 24T, 28.10.08, p. 2)

The poem above not only provides a vivid description of the kinds of outdoor education activities in CHR, it also tells of their prevalence. On the one hand, Anita seems to revel in CHR's reputation and the vibrant environment outdoor education has created in the school. On the other hand, she seems to insinuate that such an environment has caused much disruption and distraction to her students. This vibrant environment for outdoor education was evident when I was doing my fieldwork. The class camps for secondary one and two students were held weekly in the school and these camps were usually a source of great excitement. During

the school assemblies in the morning, the students showed much interest in the class that was going to have the camp so that they could drop by to watch or support their schoolmates. The teachers and students work and study in an environment where outdoor education activities, in one form or another, occur throughout the academic year.

### ***Philosophy***

The principle of *challenge by choice* seems to be adopted as a philosophy for outdoor education in CHR by most of the staff I spoke with. In my discussions with the participants of this study, it became apparent that they demonstrated a consistent and positive belief in the mantra of challenge by choice. The philosophy of the school that “each pupil has worth and that his/her growth and development can be nurtured to the optimum” (Christ Church Secondary School, 2008d, p. 4) was not as widely known or articulated by the participants.

My discussions with teachers revealed that the adoption of the challenge by choice mantra to guide outdoor education in CHR was decided after they attended James Neill’s keynote address at the first MOE outdoor education conference held in Singapore in 2004. The principle of challenge by choice was part of James Neill’s presentation on building (psychological) resilience through outdoor education. The CHR (2008b) report explicitly states challenge by choice as a philosophy underlying the RACE programme in CHR, that is, “no one is forced to do any activity” (p. 9). In conjunction with this philosophy, the Full Value Contract (FVC) tenets are emphasised to create an environment conducive to participants feeling safe to be themselves.

As highlighted in my literature review, the challenge by choice principle appears simple in theory but is complex in reality and practice (Neill, n. d.). Challenge by choice is often misconstrued as an exit strategy for students who do not wish to participate in activities (Wallia, 2008). In the case of CHR, challenge by choice is not only thought upon as a philosophy that guides the outdoor education practices in the school, it is also seen as a clause to protect students’ rights to abstain from

activities if they (students) are not “prepared to take the plunge” (Christ Church Secondary School, 2008b , p. 9). The following poem is created from an interview transcript excerpt with Andrew, one of the teachers. To a large extent, the poem conveys teachers’ understandings of the challenge by choice philosophy that underpins the outdoor education programme in CHR.

Philosophy?

We do have one sentence that everyone must know

It is Challenge by Choice

Not everyone must go through

Not really

Of course, if the students don’t want to participate

for example,

rappelling, abseiling,

we don’t force them,

we encourage them,

we try to explain to them.

What are the procedures?

What are the safety factors factored in?

So they need not be worried about their safety,

and try to help them

mentally, physically.

To prepare them,

to overcome the barrier. (interview notes, 28T, 13.11.08, pp. 3-4)

During my fieldwork, I witnessed on many occasions how teachers and students live out the challenge by choice philosophy. This was especially evident in the high elements of the adventure activities like abseiling, rock-climbing and the flying fox. Usually 10 or more students were allocated to each of the challenge activities after the large group briefing. During these briefings, most of the time was dedicated to instructions on safety and on the use of the personal protective equipment, such as harnesses and helmets. At the various challenge activities, some

students would start to show signs of fear and reluctance to participate in some of the activities. The two most feared activities were abseiling and the flying fox. More often than not, the students were driven to the “impel to challenge” part of the continuum depicted by Neill (n. d.), rather than exercising their “challenge by choice” option. Even on occasions where students verbalised their fears (usually of heights), the instructors would usually coax these frightened students into going for the activity by assuring them of their safety. If the students emphatically refused to take part in the activity, the instructors would eventually let them off the hook, quoting challenge by choice as the reason for their “leniency”.

The adoption of the challenge by choice principle as a philosophy to guide outdoor education programme at CHR substantiates Nicol’s (2002b) assertion that “much of outdoor education philosophy has grown out of accepted practice and it often lacks clarity and purpose” (p. 5). This lack of clarity and purpose is in part due to the lack of a philosophical framework for outdoor education at large. Therefore, many practitioners of outdoor education including, in this case, the CHR staff, appear to have conflated the challenge by choice principle with a philosophy of outdoor education.

### **Enablers of RACE programme**

Teachers and students in CHR perceived numerous enablers as driving forces of the RACE programme. They strongly believed that the success of RACE was a collective effort by everyone in the school and its community. However, I have limited my discussion of the enablers of the RACE programme to those that were most prominently featured in the data. These key enablers are subcategorised into the following domains: leadership, staff, physical resources and provision.

#### ***Leadership***

Throughout my time at CHR, I could see from the point of view as a teacher-aide, the emphasis given to RACE programme. The principal would personally lead some of the meetings with regards to RACE programme and constantly remind

teachers of its importance during weekly staff meetings. It also emerged strongly in my interviews with participants that the school's leadership, and particularly the principal, had paved the way for RACE to succeed. Participants unanimously cited the principal as the key reason for CHR's emphasis on outdoor education. The following poem, created from Nora's transcript excerpt, seems to give the impression that the principal decides on CHR's niche area.

That's what the Principal choose  
for the school.  
He chose outdoor education  
as the niche.  
But I suppose,  
as far as I know,  
his approach is very different.  
He doesn't go all the way  
for them to grasp  
just the academic.  
He wants them to grow  
as a whole.  
It's a holistic  
kind of approach  
to the pupils' education. (interview notes, 21T, 21.10.08, p. 4)

The general perception of teachers and students about the principal's commitment to RACE made me curious about the principal's motives. When I asked the principal about the reasons for his choice of outdoor education as the niche for CHR, he said he strongly believed that students need certain life skills in order to thrive in a global world. He initiated RACE because he felt that these life skills could best be taught through outdoor education. When asked what RACE sets out to achieve, he quoted four "quotients" which are proxies for measuring abilities in different domains, namely, Adversity Quotient (AQ), Emotional Quotient (EQ),



Intelligent Quotient (IQ) and Cultural Quotient (CQ) as the chief objectives of the programme.

Although it is conceivable that an autocratic principal could create conditions for outdoor education to fail, due to her/his lack of specialised knowledge in the field, this is not the case at CHR. The general perception that RACE is the principal's pet project has harnessed adequate support for RACE from the staff of the school. This is, in part, due to the full autonomy that the ministry accords to principals in appraising the teachers in their schools. Moreover, performance bonuses in the form of monetary rewards are pegged to these appraisal reports. Therefore, in the realm of power relationships, and the desire to gain a favourable appraisal report, it is not uncommon for a staff member to do the bidding of his or her reporting officers. At CHR, the principal's partiality towards outdoor education has directly and indirectly impacted on the teachers' focus and thus, created an environment in which outdoor education thrives.

### *Staff*

The implementation of RACE takes more than just strong leadership. Many participants with whom I spoke agreed that the staff in CHR made sacrifices and "went the extra mile" in running RACE programme. The RACE team comprises a group of staff members trained as MOE instructors. When I was at the school, I saw the group of 22 RACE teachers being assigned duties to help facilitate the adventure activities for the weekly class camps. They were clearly dedicated to performing their duties in the adventure activities despite many of them being academic subject teachers and new to the activities. Generally, the perception of risk was high and they were extremely cautious when it came to the safety aspects of conducting high element activities. They were also very aware of the responsibilities attached to their RACE duties.

Even students like Mariah observed the presence of the RACE teachers and had this to say about the RACE teachers:

We have this group  
of teachers.

They call themselves -  
RACE trainers.

Quite a number of them  
take part in it.

Erm, not all,  
only some.

I can't really remember,  
quite a big troupe lah.

They go for a course,  
they always tell us.

We can't go for this and that  
because they have

a RACE course. (interview notes, 9S, 24.9.08, p. 2)

At the same time, staff members who are not part of the RACE team are also called upon to carry out RACE duties. During my fieldwork, I observed that form teachers of the classes involved in the field trips or class camps would inevitably be tasked to help in these activities. Their duties ranged from chaperoning the students in school during the camps to organising overseas service learning trips and/or bi-cultural activities.

Although RACE duties were not often expected of non-RACE teachers, the increase in workload for non-RACE teachers led to some resentment among them. Many felt that they were not formally trained in outdoor education and should not be taking on such responsibilities. The teachers who carried out RACE programme may not feel ownership of them because most of them had not been involved in their conceptualisation. The design of the class camps, for instance, hinges largely on the "expertise" of one chemistry-trained teacher in the school who has been deployed fully to conduct the class camps. When asked about the planning for the

curriculum, she said candidly that it was based on her personal experience in the outdoors.

Apart from one teacher fully deployed in organising class camps, there was hardly any mention of how the outdoor education curriculum in the school had been designed. The curriculum appeared to be activity-driven, with activities organised in the name of the RACE programme. In the same vein, the CME teachers who planned the service learning overseas trips for RACE said that they have tapped on their expertise in CME to craft the learning objectives and subsequently relied on the service providers' expertise to lead the students in the overseas trips. Therefore, in spite of the lack of specialised knowledge in the field of outdoor education amongst the teachers, the RACE programme was able to take off. However, the implementation of the programme has resulted in a certain degree of resentment among the staff.

### ***Physical resources***

The staff members in management positions said that funding was not an issue in the implementation of RACE. Other participants whom I interviewed agreed that the level of support for RACE was extremely high. This support for RACE was especially evident from MOE's funding. The MOE funds enabled the school to build the various adventure facilities and the challenge ropes course within the school grounds. The adventure facilities of CHR were not just the centre of attention among staff and students, but also attracted the attention of the community around the school. Over time, these adventure facilities have come to symbolise what CHR stands for.

One of the teachers, Sabrina felt that:

It's like we're being recognised  
for all the high elements,  
or rock-climbing,  
abseiling, flying fox facilities.

Some schools come over  
and use our facilities.  
Makes it much easier.  
With MOE adventure centre,  
it's sometimes,  
it's fully booked,  
it's like,  
it's a hotspot.  
An alternative would be,  
for them  
to come over here. (interview notes, 17T, 10.10.08, p. 6)

### ***Provision***

What struck me most about CHR was the abundance in opportunities for outdoor education to be offered to staff and students. The participants I spoke with seemed grateful about the outdoor education opportunities that CHR provided. One teacher, John, was delighted at the opportunities offered, in comparison to those offered during his own time as a student. He said

I think  
to get students  
to be exposed  
to what they don't see in school  
outside school curriculum,  
it's a good experience.  
For me,  
during my secondary school days,  
seldom have all these activities.  
Yes, there is,  
but not for  
majority of the students.  
Like only

maybe CCA

go for overseas trip - Mount K<sup>42</sup>.

I went before.

But then,

in one school,

only select one student.

Only I,

have the chance. (interview notes, 25T, 4.11.08, p. 3)

The provision of outdoor education in CHR was structured around the framework of RACE. Outdoor education was formally included in the curriculum of the school through the subject CME. Instead of delivering the national CME syllabus at secondary one and two levels, CHR condensed the weekly CME lessons into two annual class camps. Each of these class camps lasted for about four days in duration. This seemed to be based on the premise that some of the components and contents of the CME syllabus were incorporated into the class camps. The students were then assessed and given marks for the subject CME, based on their participation in their class camps. When the students in CHR reached the upper secondary levels, they were expected to go through one more RACE experience. It was designed as a CIP that was made compulsory for all students. The CIP in CHR was implemented as a service learning expedition to Karimun island in Indonesia. The students in CHR were exposed to some form of language and cultural immersion activities before embarking on this trip. Therefore, in CHR, outdoor education is regarded a key component because of its place in its formal curriculum and this signalled its importance in the school curriculum.

### **Interplay of tensions**

In the following sections, I draw attention to the interplay of tensions that have emerged from the implementation of RACE. This interplay of tensions represents some of the unresolved challenges of RACE programme in CHR.

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<sup>42</sup> Kinabalu.

***Tension between RACERS and non-RACERS***

The formation of the RACE programme gave rise to some differences among the staff. It was clear that RACE teachers, who proudly call themselves the RACERS, feel that they are part of a team. Many staff members (including non-teachers) aspire to be a RACER. However, teachers who are not involved in RACE view things differently. “I found out during a casual chat with one of the staff members that the school's emphasis on outdoor education or RACE may not be welcomed by all staff members in the school. I was told that those who are not in the RACE committee feel marginalised because they do not feel rewarded or appreciated at the end of the day” (fieldnotes, 18.7.08). For that reason, Lolita felt that some teachers might have been pressured to “go with the flow”. Lolita, being a senior teacher, voiced her concern for young teachers in the school.

Young teachers in this school,

so it has.

It's good and

it's not so good.

Young means

you can tap on them.

I mean

they are enthusiastic.

But you can also drain them.

You can drain them out very fast.

When they come in,

they are raring to teach.

And then,

you have all these.

Okay,

they are interested,

they like it.

But,

after a while,

they want to balance it up.

There's where

the problem starts. (interview notes, 26T, 4.11.08, pp. 8-9)

### ***Tension between teaching and RACE duties***

In the previous section on enablers of RACE, the dedication and commitment of the staff towards RACE was evident. However, many of the teachers also raised concerns that their workload was an issue that could not be easily resolved. In addition to their teaching responsibilities, many of them have to also take on RACE duties. Lolita explained that the additional workload affects not only the teachers taking on the RACE duties but also the other teachers who were called upon to relieve their teaching duties.

Because the teachers do the planning,

the focus, the attention,

is on both.

So much as you need

to find time

to do all these,

but then

it's still very demanding.

So, it's not just the students,

it's the teachers.

And then,

teachers also affect the other teachers.

Because when they are away,

we have to relief.

And then,

it's not our subject area,

we can't do much.

We just go in and

baby-sit.

So it's like  
a lot of curriculum time  
is wasted.  
So it's like  
the main people are affected.  
Fine.  
I mean those who are really involved.  
They do the running.  
They do the planning.  
The students are involved.  
The whole school is involved.  
You see? (interview notes, 26T, 4.11.08, p. 4)

### ***Tension between tangible and intangible outcomes***

As mentioned in chapter two, the shifts in educational emphases and the broadening of the educational landscape over the past decade have not changed the exam-oriented culture in Singapore. The findings of this study are consistent with a recent survey reported by Davie (2005) that parents' regard for academic results remained their sole concern. Therefore, parents look for tangible outcomes from the school, in particular, the academic performance of their child. Some teachers are convinced that learning has occurred through the RACE programme. Many accept that its outcomes may be intangible, yet others questioned the outcomes as well as its intents. Outdoor education is therefore not necessarily seen as an enhancement of students' development, particularly in the academic domain. Rather, it is seen by some as a distraction to the students who are already struggling with their schoolwork. When asked about the outcomes of the outdoor education programme in the school, two of the teachers, Sarah and Anita voiced their opinions in the respective poems.

[Outdoor education] does give students  
some sense of confidence  
after all these training.



But  
we don't really see  
the result.  
As like  
improvement.  
Not that it's linked to  
academic.  
So far,  
it's  
it's not  
tangible. (interview notes, 18T, 11.10.08, p. 3)

How do you measure the intangible things anyway?  
How do you look at the depth of experience?  
And say that that was a very experienceful learning?  
And all that?  
Well,  
we can always say that  
at the end of the day,  
we know that  
somehow  
somewhere  
it's gonna affect them.  
And maybe,  
10 years down the road,  
they will make the right choice  
based on not just what some people say,  
but their own understanding of themselves,  
which has somehow been sparked off  
long time ago when  
they went for outdoor education,  
or something.

But it's so difficult to  
actually sit down  
and tabulate. (interview notes, 24T, 28.10.08, p. 6)

### ***Tension of balancing academic work with RACE***

One of the most pressing challenges that needed to be addressed was the poor academic performance of CHR students. One of the staff, Song An, feels that there has to be a certain balance. He thinks that outdoor education has a strong appeal to students in general. Hence, he feels that the students who already are not interested in academic subjects could be drawn further away from their studies by being involved in outdoor education programme. However one teacher, Anita, felt that outdoor experiences gave the students an edge in terms of writing essays. She said that outdoor experiences provided the authentic and original content needed for much essay writing. Nevertheless, she also raised concerns about students who neglected their academic studies because of outdoor education.

I felt that sometimes,  
the students take it very seriously.  
To the point where  
they neglect their studies.  
And then  
get mixed up.  
I got one student who  
routinely left the classroom,  
like every two weeks once.  
She will leave the classroom by 12 o'clock,  
because we have visitors coming.  
And somebody has to be there  
at the station.  
And somebody has to bring  
the primary school kids around.  
She has to be an ambassador

and all that.  
So, she's like very  
smart student, but  
unfortunately, she missed many lessons  
coz she will leave at 12.  
School actually goes on  
until two or one.  
And then I really felt that  
she was actually sacrificing quite a lot for that.  
Then I've had students,  
brilliant in outdoor stuff.  
When it comes to the indoors,  
and really focusing on academic performance,  
their mind is very diverted,  
and thinking or planning,  
about next week's thing.  
And so they'll be distracted.  
Maybe because they are not really told  
about the fact that  
you need to have your academic first  
before you can actually embark on other things.  
That kind of thing.  
The lack of focus is there,  
where like  
it's not very balanced. (interview notes, 24T, 28.10.08, p. 3)

Even the students I spoke with did not portray CHR as being particularly conducive for academic studies. For instance, one of the students, Mei Qi explained that "students down here doesn't really have that kind of learning mindset. They are all very slack, they don't really have this kind of studying attitude. They came here just to sleep then, just to some kind of give face to teachers like that" (interview notes, 8S, 24.9.08, p. 1). In the following poem

constructed from the interview transcript with another teacher, Lolita expresses her frustration with having to deal with students who are not able to focus on academic studies.

CHR students can boast that  
they have been here  
and been there.

I mean in comparison to  
their friends in other schools  
who do not have the opportunity.

So at least they can say

I've been to Karimun,

I've seen this,

I've seen that,

that kind of thing.

So it's more an enjoyable form of education  
that they have in Christ Church.

But er,

I think being a CHRian

you also have to have this ability to  
switch on and switch off.

It's good that

they have been to all these places

and all that

but then when it comes to studies,

you have to switch back

into the study mode.

So that is what we need to teach our students  
which is very much lacking.

You know they enjoy themselves,

they like the overseas and all

but they cannot switch off –

they are on

all the time. (interview notes, 26T, 4.11.08, p. 6-7)

### ***Tension between choice and compulsion***

In a school that is well known for its outdoor culture, I expected that CHR students would be comfortable in the outdoors, but this was much less the case than I anticipated. For instance, some of the secondary one students expressed their fears and discomfort in their blogs. That is why I found the following unedited blog entry to be unusual. This boy was very vocal during the class camp and I took notice of him because he was not very popular with his peers. He was perceived by his teachers and peers as outspoken and opinionated.

Well, the camp was alright but it can be improved very much. There are up sides and the down sides and I would like to complain MORE but it would sum up to 3-5 pages of paper. I would like to go for more camps but not like this camp.

P.S, try not to FORCE us to do something when we don't want to. We are human beings too you know.

Posted by Luqmanhaziq070 at [1:29 AM](#) [2 comments](#)  

From my personal experience of a trekking trip to Mount Jantan, I wrote:

During the trek, I chatted with some of the students. I was rather surprised that some of them were exposed to such rugged terrain for the very first time. I had assumed that they have built up their outdoor skills from secondary one onwards. I heard that their sec one camp was held at the Bukit Batok campsite which they did nothing much. They did not seem to like it. They went on a tree-top walk and did kayaking in their sec two camp last year. From my observation, many of these kids were uncomfortable in the forest and some of them find the steep slopes very challenging. I had to encourage quite a few of them along the way. However, there are two boys who had climbed Mt K before and they seemed more confident. There were also a couple of OAC members who seem a little more at ease. (fieldnotes, 24.7.08)

The mantra of challenge by choice appears to be in conflict with the RACE programme, which is designed to be compulsory for all the students in CHR. Students appear to have little choice but to be involved in the RACE programme. Although they can, in principle, refuse to participate in activities that they are not comfortable with, peer pressure coerces them to comply. If the students' choices were to be respected, there would not be any need for the staff to coax the students into taking part in the activities that the students are not comfortable with. Clearly, this tension between offering outdoor education as an option and making it a compulsory subject in the curriculum remains as a challenge that is not easily resolved.

### **A summary: Who and what shape outdoor education in CHR?**

The findings in this question could be interpreted further in the light of the theoretical interpretive framework from chapter two. From a broader perspective, global influences and local contexts have shaped outdoor education purposes and practices in CHR. Traditional outdoor adventure activities (eg., abseiling, rock-climbing, kayaking etc.), developed primarily for personal development purposes, were adopted in CHR mainly to fulfil the functions of developing skills and competencies perceived as important for the global economy. Although much criticised by scholars like Brookes (2003a, 2003b) and Cosgriff (2008), these neo-Hahnian outdoor education approaches, based on the assumption that adventure experiences could build character or develop the individual, continued to be adopted uncritically due to the historical association of outdoor education with outward bound, adventure pursuits and military practices.

To a large extent, MOE also sets the climate for outdoor education to perform these functions. Outdoor education has been selected by MOE as one of the means of teaching the concepts, values and skills of global education because it is perceived to be able to provide students with authentic experiences that can actively engage the students holistically. But how this can be achieved is largely left to the schools

to plan and implement. MOE assumes that outdoor education can and will hone the competencies of the 21<sup>st</sup> century's economy, deemed necessary for the students to thrive in the global world.

It is also for these economic reasons that Singapore broadened the educational landscape, in order to inject fluidity throughout the education system by recognising talents besides academic achievements and providing more flexibility in the school curriculum. However, this broadening of the educational landscape did not reduce the academic pressures faced by students as parents and the society at large continued to view academic excellence as a passport to better career prospects. In fact, this competitive climate adds to the pressures on schools to compete and be recognised even in non-academic areas, for instance, in niches such as specific sports or the arts. In view of the diversification of the educational landscape, one of the targets that MOE has set is for half of its 365 schools in Singapore to achieve and be recognised for their niches of excellence. Many of the staff and pupils in this study concur that CHR is not known for its academic achievements, but is instead highly regarded for its adventure facilities and outdoor education programme. Hence, the development of outdoor education in CHR can be seen as a strategic move towards an area of excellence for the school.

However, this strategic direction, which is strongly supported by the principal, appears to have created some tensions in the school. The teachers who implement and deliver RACE do not necessarily feel that they have a stake in it. Many of them do not feel any ownership of the programme and some even feel resentful because they see their main duties in the school as concerned with teaching for academic excellence. Although the implementation of outdoor education in CHR appears to be successful, teachers need to experience a sense of ownership and be involved in charting the strategic direction of the school in order to alleviate some of the tensions that have surfaced.

## **Research Question 2: What are the desired and perceived outcomes of outdoor education in CHR?**

In my literature review, enhancing personal development traits such as self-concept and social skills, are often cited as desired outcomes of outdoor education programmes. Outdoor education studies and research also tend to focus on the outdoor education outcomes espoused by educators and often neglect the accounts and experiences of the participants of such programmes, a point emphasised by Barrett and Greenaway (1995) as one of the weaknesses of outdoor education research. Quantitative studies in particular, where outcomes are computed into a composite value, neglect accounts of the rich experiences of participants. My findings, which I present under the various subcategories of desired and perceived outcomes, attempt to address the weakness to which Barrett and Greenaway (1995) refer.

In my findings, I differentiate and organise the outcomes of outdoor education at CHR under two broad categories: perceived and desired outcomes. Perceived outcomes are those that are specified by the teachers and students during the interviews. These perceived outcomes appear to be close to the participants' hearts and they could readily identify them (and with them). Desired outcomes are those envisioned by the school leaders and the teachers who implement the RACE programme. These desired outcomes are the explicit purposes of outdoor education at CHR. The desired and perceived outcomes of outdoor education at CHR are summarised in Figure 28. Although some links can be established (see red dotted lines in Figure 28) between desired and perceived outcomes, a gap remains between them.



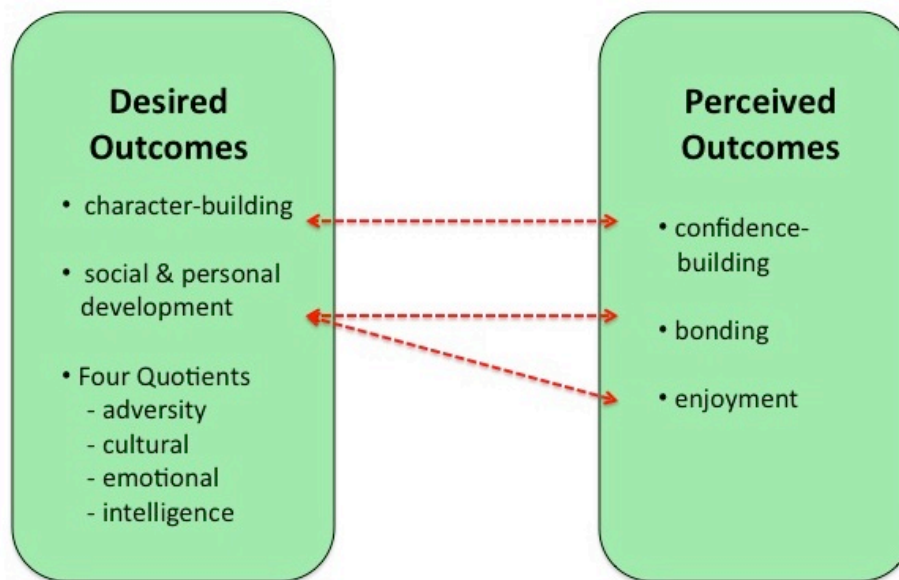


Figure 28. Desired outcomes and perceived outcomes of outdoor education in CHR.

### Desired outcomes of outdoor education

In the case study school, the desired outcomes point to character building, personal and social development and the four “quotients” (ie. Adversity Quotient, Emotional Quotient, Cultural Quotient and Intelligence Quotient). The findings in this school support our previous observation (Martin & Ho, 2009) that Singaporean teachers ranked highly the outcomes related to personal development and service to the community. In the same study, we also found that Singaporean teachers considered outdoor education as most importantly pursuing educational outcomes such as resilience, group co-operation and personal responsibility (Martin & Ho, 2009).

Many of these desired outcomes appear to be historically and politically linked to nation-building (K. Y. Lee, 1966, 2000). Character building and resilience building have been key foci of Singapore education since the country’s independence. Brookes’ (2003b) cogent and convincing argument that character building in outdoor education is a flawed concept has not significantly impacted outdoor education literature in countries like the USA, New Zealand, UK, and parts of Australia where desired outcomes such as personal development persist. Therefore

it is hardly surprising that many teachers in CHR view outdoor education as an effective means of character building.

### **Character building**

Given Singapore's historical and political emphases on building a "rugged" society (The Straits Times, 1990), many teachers in CHR consider outdoor education to be a very good way to build the character of students. In the following poem, a teacher, Swee Hoe, details how outdoor education in CHR builds the character of its students.

The school's approach is like  
building their foundation.  
Sec one is just  
self-awareness between friends  
and some team-building.  
Then Sec two  
they start to go outdoor,  
stay outdoor.  
Then Sec three,  
they start to go Karimun,  
overseas,  
then they start to go expedition.  
I think there is a kind of like  
building up and showing  
building their character. (interview notes, 1T, 18.7.08, p. 4)

### ***Personal and social development***

In CHR, personal and social development is featured as one of the desired outcomes of outdoor education. One of the teachers in CHR, Zac, highlights the importance of personal and social development, which he deems as lacking in Singaporean students today.

Living in Singapore,  
children don't really get out much.  
Even if they go out,  
they don't really run around  
like what we used to be.  
There's no place to really go climb or  
to really interact with each other and  
Singapore is relatively very safe, in a way.  
There's no, not much risk  
except for the traffic and stuff lah.  
Yah, so when you put the outdoor activities,  
actually give the students a chance to really bond together.  
Yah, and not only to play and have fun  
but also through the risk, the fear,  
they can help each other,  
they can encourage each other.  
Yah,  
that's where I see  
it will help them in  
their personal development. (interview notes, 16T, 7.10.08, p. 2)

### ***The four quotients***

During my first meeting with the school principal, I was told that RACE was a programme for behaviour modification and the building of the four quotients of AQ, EQ, CQ and IQ in the students. He went on to say that

[RACE] aims to enable students to develop their ability to make responsible choices and understand the importance of having perseverance, open-mindedness and flexibility in working towards their goals and handling obstacles in life, as well as the importance of creating a safe environment through risk-awareness and giving support. (fieldnotes, 24.1.08)

However, throughout my fieldwork in the school, I was surprised to find that only a few staff members (mainly those in middle management) made specific reference to the four quotients as outcomes of RACE. The following poem is created from the transcript excerpt of Boon Hwa, one of the key staff members driving the RACE programme.

The management  
or the principal wanted to  
really give  
the 4 Qs to the students,  
provide the 4 Qs in their life  
in CHR.  
One of the Q  
is AQ, adversity quotient.  
And adversity quotient is deemed to be  
what do you call that?  
You'll probably be able to  
only get or enhance  
your AQ through outdoors lah.  
So AQ - a risk,  
a risk factor.  
So we got AQ,  
we got CQ,  
Emotional Q.  
After all,  
the IQ is  
easily addressed lah. (interview notes, 3T, 10.9.08, p. 4)

Other than three staff members who made specific references to the four quotients, the majority of the participants quoted resilience (an aspect of the adversity quotient) as a desired outcome of outdoor education in CHR. There was no mention of the other three quotients (ie. CQ, EQ, IQ), which appears to indicate

that the staff do not share the same vision as the principal who, at least in this aspect of outdoor education at CHR, appears to be solely driving a programme, without the full endorsement (or understanding) of the staff.

### **Perceived outcomes of outdoor education**

In this section, I highlight outcomes of outdoor education at CHR to which the participants of this study drew attention. Students' blogs and other accounts of their outdoor education experiences at CHR point to outcomes that cohere around themes of bonding, confidence building and enjoyment.

#### ***Bonding***

Bonding was one of the perceived outcomes of outdoor education in CHR that was mentioned most often. For instance, a secondary one student blogged about the bonds formed with her friends after the class camp.

They was alot of great bonding time for us to bond together, not only my clique lah(jiaqi,ellenca,cara,christina,me and rhoda)but the entire class and i think we did a very good job trying our best to unite with each class even with our enemies(TRYING!!).

**Posted by forever at [4:34 AM](#) [0 comments](#)**

However, the bonds formed were not limited to peers. Participants also valued the teacher-student bonds that were formed during such outdoor education trips. Two of the students, Wen Hui and Hannah, spoke positively about the many trips that the school offers. Their most memorable outdoor education trip with the school involved trekking to the Annapurna base camp. Their experiences are captured in the following poem, which includes details of how they bonded with their teachers and peers during the trip.

I mean all of us started out  
we didn't know each other  
very well,

some of us  
we don't even see each other  
in school,  
there is a group of eight of us  
when we started  
there was another part at the end.  
was supposed to reach the summit  
according to plan  
but due to the snowstorm  
we couldn't make it  
because the snow level is up to  
the "ang mo<sup>43</sup>'s" knees,  
which is our waist.  
So Miss Puah was saying  
that it was rather dangerous,  
she didn't wanted to risk our lives  
so it is the kind of attitude that we show.  
Then in the end,  
the guide and Miss Puah  
and the teachers,  
they were so shocked because  
all the guys and  
we cried.  
Some of the guys,  
they literally broke down. (interview notes, 5S, 23.9.08, p. 6)

### ***Confidence building***

Many teachers like Elle felt that the main aim of outdoor education in CHR is to enable students to be more rugged and resilient. This is because outdoor education has given her students, who are not academically inclined, a chance to excel, thereby boosting the confidence of these "weaker" students. Nora, another teacher,

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<sup>43</sup> A term for Caucasian in Hokkien, a Chinese dialect.

felt that not all students in Singapore have such privileges. She thought that CHR was unique in providing all students with an opportunity to experience outdoor education. Another teacher, Swee Hoe, even testified that his students grew more confident after the class camp. He felt that his students spoke up more often, became more rugged and were more confident of themselves. These teachers felt that the canoeing and the obstacles courses contributed to the boost in their students' confidence. I have included one of the student's blogs to provide a perspective on the students' experience.

**The thing that i was most scared of is the rockwall. I only climbed three quarter of it. Some people reached the highest peak. I really admired them. Next we did abceiling. My hand was hot when i came down after rubbing the gloves on the ropes. Kenny was scared of height. He looked like he was going to cry when he was going down but he was a good basketball player. I meant everyone is scared of somethings and good in somethings.**

*Posted by Guan Hoe at [6:13 PM](#) [0 comments](#)* 

One of the students, Matt, attributed his transformation from a timid to a more confident person chiefly to his outdoor education experiences in CHR. He recounted that

When I come in here,  
we have camp,  
a lot of camps.  
Outdoor activity,  
also have.  
Break through my fears lah.  
Because I also  
very scared of high element.  
And still have to try lah.  
Then  
I like this school,

because the students here,  
we have confidence.

Turn out  
very confident lah.

Because last time,

I very...

very quiet one,

very scared one.

Timid...

Timid. (interview notes, 6S, 23.9.08, p. 1)

### *Enjoyment*

Fun or enjoyment of activities was hardly mentioned (or perhaps even thought of) as an desired outcome of outdoor education in CHR. However, there were many participants who recalled their personal outdoor experiences as truly enjoyable. Teachers like Anita, were certain that the students enjoyed their outdoor education experiences. She said

I know that the students love it very much  
because when we actually do writing,  
like school report writing  
and all that in the classroom.

Ah, like for example two years ago,  
we had a mid-year exam question where,  
what are some of the features  
of the school that you really like,  
the features of the school  
and talk about it  
in the descriptive compo.

So we had many students writing  
about the outdoor education programme  
and how they felt



that Christ Church was like  
a good example,  
how they really enjoyed themselves,  
the outdoor adventure programme  
is a very important part  
of the class camps and  
how through the class camps  
you really got to know each other very well  
and bonded with one another.  
And even when I do journal writing  
with my sec twos,  
they mention it a lot. (interview notes, 24T, 28.10.08, pp. 1-2)

**A summary: What are the desired and perceived outcomes of outdoor education in CHR?**

Most research literature focuses chiefly on outcomes from the perspectives of educators and researchers rather than of participants. Examining the gap between desired and perceived outcomes and considering reasons for the discrepancy could shed light on whether the programmes have been implemented in purposeful ways.

From the findings of this study, it seems that the perceived outcomes did not necessarily correspond with the desired outcomes. Although the expression of terms did not match, there are elements of similarity between the desired and perceived outcomes. For instance, the perceived outcome of confidence building could be an example of the desired outcome of character development intended by the school management. Bonding and enjoyment, both perceived by the participants as outcomes, could be examples of the desired outcomes of social and personal development for the students. The variations in expressions used to describe the perceived and desired outcomes might suggest that the programmes have not entirely fulfilled their aims. One plausible reason for the usage of different terms is that the desired outcomes were not explicitly communicated to staff and students. Although the desired outcomes of outdoor education were listed and

described in school reports, handbooks and newsletters, they were not mentioned during the outdoor education sessions I observed. The activities were the main focus of the programme, with little obvious attention given to the desired outcomes that RACE intended to achieve. That is why, the majority of participants did not – and perhaps could not – verbalise the desired outcomes of the RACE programme. When asked about the outcomes of RACE, participants expressed outcomes that were closer to their hearts, largely based on their personal experiences with outdoor education in CHR.

Realistically speaking, there is no way to tell whether these outcomes, desired or perceived, have been achieved. In the case of CHR, I agree with Biesta's (2009) argument that effectiveness alone should not be the gauge of good education and programmes. He argues that sometimes educational strategies that are not effective, but provide opportunities for students to explore their own ways of thinking, doing and being, can be more desirable than those that effectively produce specified outcomes. Instead of making a case for effective education, Biesta argues for a need to ask "effective for what?" In the case of CHR, I agree that despite the discrepancy between desired and perceived outcomes, the RACE programme at CHR has, to a certain degree, nurtured a generally positive and confident outlook among the student population.

In the light of the theoretical framework, the desired and perceived outcomes of RACE at CHR can be interpreted as fulfilling the three functions of outdoor education, whereby character and resilience building, personal and social development, and enjoyment are featured most strongly. I will further relate how some of these outcomes are linked to the functions of outdoor education in the next chapter.

### Research Question 3: In what ways do Singapore's social and educational policies influence outdoor education at CHR?

In this section, I consider whether social and educational policies in Singapore have an influence on the implementation of outdoor education in CHR. The education system is an open system that is shaped by global influences and the local contexts as depicted in Figure 29. Although MOE focuses on the conceptualisation, which includes the development and specification of policies, schools like CHR are expected to implement them.

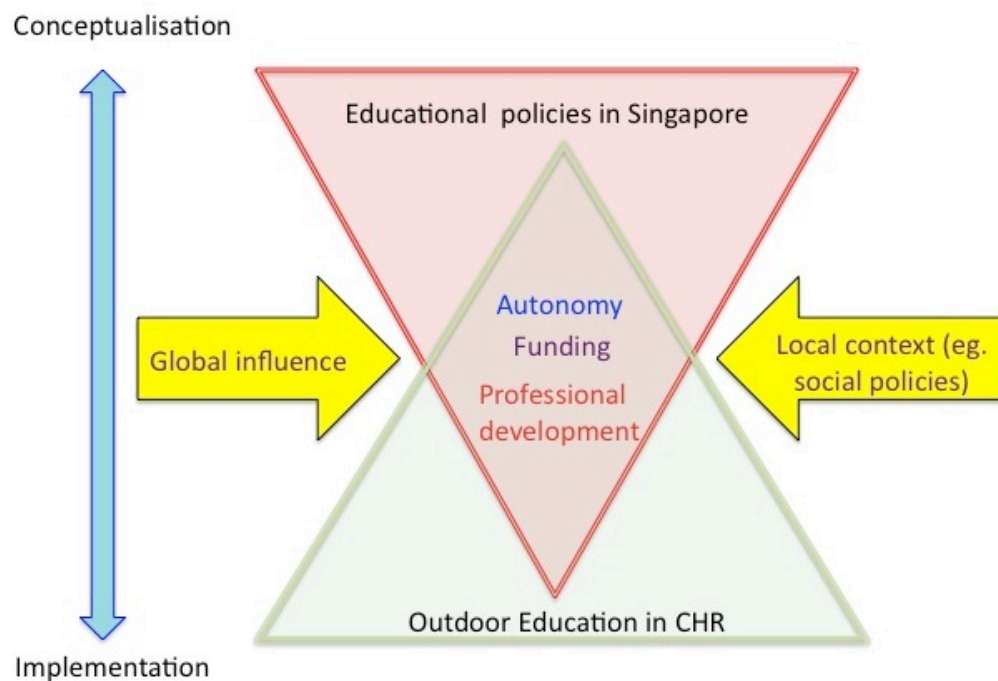


Figure 29. Influence of social and educational policies on outdoor education in CHR.

My literature review demonstrates that educational policies in Singapore are shaped by larger forces of globalisation and economic imperatives for creating diverse talents. Outdoor education practice, provision and development in CHR is, in turn, influenced and shaped by the social and educational policies in Singapore.

As depicted in Figure 29, MOE's influence is at the level at which the school decides its focus. The influence does not appear to extend beyond the stipulated number of camping experiences in most schools, except in CHR. For CHR, it went beyond the provision of camping experiences to promote the school as a centre for outdoor education, hence the RACE programme. However, MOE does not have a direct influence on the design of RACE and its implementation. MOE supports CHR by providing the funding for RACE. Many participants attributed RACE's success to this scheme for funding innovative programmes in schools. Thus, MOE's impact appears to be limited to kick-starting the programme.

In the following sections, I will revisit some of Singapore's social and educational policies and the history of their formation before focusing on their influence on outdoor education in CHR. I will also present the views of participants in this study so as to better understand the way outdoor education in CHR is shaped by the social and educational policies of the nation-state. I will suggest some ways of interpreting how the participants in this study negotiate and respond to the diverse processes of globalisation and nation-building in Singapore.

### **Influence of globalisation and national imperatives**

As suggested in Figure 29, global influences and local contexts (such as social policies) have shaped both the educational policies of Singapore and the practices of outdoor education in CHR. Educational policies in Singapore have tended to develop from pragmatic considerations for the future of the nation. This is because education in Singapore has always been developed by the government as a vehicle for "social engineering" (Horsky & Chew, 2004, p. 246). These efforts to influence popular attitudes and social behaviour on a large scale can be seen to fulfil the socialisation function of outdoor education, as suggested in the theoretical interpretive framework I presented in chapter two. The government's policies of promoting a multiracial mix within school environment and fostering national cohesion through daily pledge-taking clearly serve the socialisation function of education. The government's call for the building of a "rugged and dynamic" (K. Y.

Lee, 2000, p. 25) society as early as the 1960s, are efforts to unify the citizenry and to build up a strong army that can protect the nation-state.

Subsequently, the government continued to remind Singaporeans who were becoming more affluent to work towards a “rugged society” (The Straits Times, 1990, p. 1). The government’s concern centred on the increasingly affluent and sedentary lifestyles of Singaporean youths which, if left unchecked, may have had detrimental effects on the nation and, in particular, its military defence capability. Hence, the MOE was charged with the responsibility to “toughen up” young people through physically rugged and outdoor activities (S. Lim, 1990). Although national service was only compulsory for boys, every citizen, including girls, was expected to participate in the nation’s defence. Therefore, the notion of a rugged society would mean a nation of citizens mentally, physically and psychologically prepared to defend the country. In the early 1990s, in support of the nation’s repeated calls for a rugged society, the MOE endorsed a policy that required every secondary school student to go through at least one residential camping experience in his or her secondary school years. This policy statement for outdoor education was revised a decade later to require every secondary school student to be provided with at least two residential camping experiences in his or her secondary school years (Shanmugaratnam, 2004a). This increase in the number of camping experiences signalled the growing importance attached to building resilience among young people, in the light of an emerging comfortable lifestyle in affluent Singapore (Almenoar, 2005b; C.L. Goh, 2004). Although the policy statement was not a foolproof solution to building tenacity among the masses, it was nevertheless a step towards exposing students to the outdoors, as a contribution to developing a rugged generation of youths. According to former Education Minister Tharman Shanmugaratnam (2004b), character traits such as “ruggedness of mind” (p. 1) would do young Singaporeans well in the future, and would do Singapore well. The outdoor and rugged activities were therefore seen as fulfilling the qualification function of outdoor education in building tenacity and strength of character among youths.

In the late 1990s, the Singapore government responded to globalisation through a number of educational reforms. Initiatives such as the infusion of Information Technology (IT), National Education (NE) and Thinking Skills (TS) into the curriculum were launched to address the different facets of TSLN, including more autonomy for schools and an ability-driven education paradigm (P.T. Ng, 2004a). Although the introduction of thinking skills has the potential to serve the function of subjectification in Singapore, it was seen more in terms of qualification, that is, as a key strategy through which the citizenry would enable the nation to stay competitive in the international economic arena for the next generation (C. Tan, 2008).

### **Influence of systemic structures and provisions**

#### ***Autonomy***

With increased autonomy, teachers and school leaders were empowered to make changes at the school level to better cater to their students' needs. There have been many initiatives undertaken by MOE in its attempt to encourage diversity in the education system. One key principle was to create diverse pathways for students of different abilities. Besides creating independent schools that were "freed" from the central system in areas of staff recruitment, admission policies and curriculum design, the ministry also accorded schools with autonomous status. The principals of schools with autonomous status were given discretion to admit five percent of their students based on demonstrated talents in specific niche areas. Therefore, all schools were also encouraged to develop their unique strengths and niche areas. The target set by MOE was to have half of the 365 schools in Singapore develop their niches of excellence by 2012. It was against this backdrop of a more diverse educational landscape that CHR took on the challenge of carving a niche in the area of outdoor education under RACE.

One of the interviewees, an official from MOE, Adam, believed that policy initiatives would only succeed if the school leadership believed in them.

It all depends on the principal.  
Whenever something has been pushed down  
from the top  
and becomes curriculum,  
means  
whether you like it or you don't like it,  
it will happen.  
So, sometimes  
if a teacher,  
who likes outdoor or  
who believes in the quality of outdoor,  
actually the best choice for them is  
to choose a good principal who believes in it.  
If not, it's just a dream  
which will not materialise lah. (interview notes, 32M, 12.2.09, p. 7).

As in the case of CHR, the principal's instrumental role in the implementation of RACE is a result of the autonomy, which allowed him to determine the niche area for the school. Although MOE sets a direction through its policies, the way a niche area is developed is decided at the school level. In the case of CHR, the top-down approach resulted in a discrepancy between perceived and desired outcomes (as discussed in relation to the previous question), but the discrepancy is at the level of implementation. The principal's vision was not cascaded fully to, and owned by, the staff members who also did not necessarily have the expertise required to run the outdoor programmes at CHR, thereby creating a gap between the principal's desired outcomes and the students' (and staff's) perceived outcomes.

### ***Funding***

To support pedagogical transformation, MOE has committed substantial structural and resource support for schools. In terms of resource support, MOE has set aside \$40 million to ensure that school infrastructure is sufficiently flexible to support teaching approaches to better engage students in learning (P.T. Ng, 2008). As

mentioned in the previous section, CHR was able to redesign the CME curriculum and CIP to be incorporated into RACE. The school was given additional funding to build the adventure challenge courses and other adventure elements such as the rock-walls and zip-line within the school. The school was also able to engage additional professional services for RACE programme. However, the high dependency on service providers, who are not teachers, to teach outdoor education in CHR gives rise to a number of teaching and pedagogical issues, such as the sessions focusing on activities rather than learning objectives. Many of the participants, including Adam from MOE, made this observation.

Government is willing to spend  
on resources.

The only problem about resources  
is the manpower.

Actually,  
they are going to embark on it [OE]  
with very few trained people.

It could be a minus effect  
because

if you are going too fast  
without the training. (interview notes, 32M, 12.2.09, p. 12)

### ***Professional development***

Educational policies on pre- and in-service professional training and development of teachers have impacted on the design and delivery of RACE in CHR. RACE might not have realised its potential due to the inadequate or inappropriate training provided by NIE, the sole provider of pre-service teacher training. More alarming is the reliance on service providers to fill the void. These service providers may not be the most appropriate personnel to deliver OE programmes because they may not be equipped with a depth of pedagogical knowledge and experience. Schools like CHR relied heavily on such courses to equip their RACE team. The lack of teacher competency affects how outdoor education is conceptualised and taught in schools.



For instance, RACE is taught by a group of teachers and service providers who are not outdoor educators. These teachers have some in-service training from MOE to become outdoor instructors for the adventure challenge ropes courses, kayaking and rock-climbing. However, specialised courses that increase competency in outdoor pursuits may limit the teachers' knowledge and understanding of outdoor education's broader possibilities. This observation is supported by my previous finding that Singaporean outdoor educators expressed the view that outdoor education requires specialist knowledge and skills (88%), yet many (39%) were unsure about the adequacy of their own qualifications and experience for teaching outdoor education (Martin & Ho, 2009). Owing to the inadequacy of pre-service training in outdoor education, schools like CHR rely heavily on in-service courses to equip their team of RACE teachers.

Although schools may leverage on MOE's in-service courses to address their short-term goals, these courses may not be able to fill the void in pre-teacher training in the long term. Many participants in this study, including those from CHR, felt that more could be done. Janet from MOE felt that:

The sustainability of  
an OE curriculum within a school  
requires a lot of  
expertise and manpower,  
commitment, efforts.  
Ah,  
at this stage,  
I think we are still not ready  
to launch into that.  
Of course,  
I don't think  
our teachers are ready  
unless Ministry goes  
into the directions

that you have OE  
as a subject  
and this is within NIE<sup>44</sup>'s training.  
So you have OE teachers  
where they can do specialisations.  
Otherwise,  
with a teacher juggling two subjects,  
as what it is currently,  
it's not easy (interview notes, 12M, 30.9.08, pp. 4-5).

As mentioned in chapter two, there is currently no structured outdoor education component in pre-service teacher training, other than a few days of outdoor pursuits experience within the PE teaching diploma course. Despite the growing interest in outdoor education in schools, NIE did not step up teacher training courses to adequately prepare teachers for teaching outdoor education. The void in pre-teacher training therefore remains one of the more pressing challenges for outdoor education in Singapore (Martin & Ho, 2009).

### **Issues of outdoor education implementation**

Participants in this study drew attention to two key issues that confronted them in implementing outdoor education. These were the lack of clarity in the outdoor education policy's intentions and Singapore's exam-oriented culture.

#### ***Lack of clarity of policy intentions***

With regard to policy matters, I interviewed a number of my past and present colleagues from the MOE. They were familiar with the policy of providing at least two camping experiences for secondary schools. They also believed that more could be done at the individual schools' level. However, they did not provide details of how outdoor education could be carried out. Chris, a colleague who was with MOE for three years and has gone back to the school system, felt that schools

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<sup>44</sup> National Institute of Education, the sole pre-service teacher training facility in Singapore.

would fulfil the policy by conducting camping experiences for the entire cohort of students. In order to minimise the disruptions to their school programmes, schools would limit the camps to a few days.

Another MOE colleague, Adam, added that the majority of the schools carried out the policy without much deliberation, especially when the principals and teachers were unclear of the policy intentions. Many of them would employ “managerial speak” (Velayutham, 2007, p. 166) in reasoning why certain policies were necessary for Singapore. Adam added that

They will only hear  
from the Minister  
and then they'll say  
we want resilience,  
ah okay okay  
we shall be resilient.  
We want adventure,  
then we will have adventure.  
Then again  
because outdoor encompasses a lot of things  
but for our nation  
what we are looking for  
is the aspect of adventure  
because we believe  
that Singaporeans are becoming softies.  
That's why last time  
you don't hear about  
people dying so often  
but now you can hear  
people dying  
for the simplest reason. (interview notes, 32M, 19.2.09, p. 7)

This managerial speak is usually used by government officials to articulate constraints experienced by Singapore and to formulate solutions for them (Velayutham, 2007). To the people on the ground implementing the policy, things seemed a little hazy. Except for the principal of CHR and perhaps a few staff members in the middle management level, the rest were not certain of any MOE policy guiding the implementation of RACE. Therefore, the implementation of educational programmes should not be naively conceived as a simple transfer of policy intent into practice. For the majority of the staff members in CHR, they were unclear about policies governing outdoor education in the schools. A few teachers, like John and Tom, said they were uncertain about the direction that RACE would take, and added that it is dependent on MOE's policy and how far MOE is going to push for outdoor education.

### ***Pressure of exam-oriented culture***

Singaporean society places a heavy premium on examination results and academic achievements. The shifts in policy emphases over the past decade have not changed the exam-oriented culture of Singapore (C. Tan, 2006a). The possibilities for outdoor education in CHR are constrained by the national examinations taken at secondary four and/or five. Most activities in RACE are offered to the students in secondary one to three, leaving a void in developing a holistic experience and outlook in outdoor education. On the one hand, schools are given autonomy and encouraged to develop niche areas. On the other hand, the degree of choice and diversity is limited by the imposition of national examinations, which restrict the scope for curricular innovation (J. Tan, 2006). It is evident in the findings reported in previous sections that staff members in CHR were particularly concerned with the school's performance in the national examinations. Most of the participants of this study agreed that CHR could not afford to stray too far from the mainstream curriculum. Janet from MOE felt that the challenges that Singapore schools were facing put constraints on their capacity to introduce outdoor education into the formal curriculum.

In a Singapore context,  
with all the emphasis on  
excellence  
and mainstream subjects,  
academic excellence  
and all that,  
I'm not sure at this moment,  
we are ready.  
Whether Ministry is ready  
or whether the schools are ready  
to take it on. (interview notes, 12M, 30.9.08, p. 4)

**A summary: In what ways do Singapore's social and educational policies influence outdoor education at CHR?**

Decentralisation and the increased autonomy accorded to schools in Singapore were not simply about shifting power and authority. The government has a responsibility for achieving national outcomes and providing high value returns on the investment of public funds. Although schools have been encouraged to find their own niche and to create new frontiers, they still need to achieve certain standards and performance indicators (P.T. Ng, 2007).

My findings demonstrated that policies from conceptualisation by MOE to implementation by schools are by no means unproblematic and uncontroversial. My findings suggest that the implementation of outdoor education policies would not be possible without systemic structures and provisions (autonomy, funding and professional development). However, outdoor educators also need to explore some of the deeper and more subtle issues of implementation (such as clarity of policy intentions and the pressures of exam-oriented culture) at the schools' levels. Like many educational policies, outdoor education policies premise themselves on the assumption that they are self-evident and self-explanatory such that leaders and teachers would simply find ways to implement these policies once they are

articulated. The lack of provision at the schools' level was evident in that most participants were unclear of policy intentions and felt that there was inadequate training for outdoor educators.

As highlighted in the theoretical interpretive framework, Singapore's social and educational policies have influenced outdoor education in CHR. My findings show that social and educational policies in Singapore delineate the purposes and functions of outdoor education, which in turn impact on the development and practice of outdoor education at CHR. The purposes and functions of outdoor education in Singapore, the focus of this thesis, will be discussed in greater detail in relation to the following question.

#### **Research Question 4: How might insights drawn from CHR inform understandings of the purposes that outdoor education does, could and should serve in Singapore?**

From my interviews with teachers and students, many of them were uncertain about the functions and purposes of outdoor education. Nevertheless, they attempted to articulate the potential and possibilities of outdoor education in Singapore. The majority of the participants suggested that outdoor education has the potential to solve problems, ranging from local to global issues. They also proposed integrating outdoor education with the existing curriculum as a possible approach to outdoor education delivery. The participants unanimously saw the potential of growing outdoor education as an activity or programme. However, they did not conceive outdoor education as a subject area in the broader context of the Singapore education system. Although the participants could not pinpoint the purposes of outdoor education in the Singapore education system, they acknowledge outdoor education's potential contribution in education and society.

#### **Functions of outdoor education in Singapore**

Many of the participants in this study anticipated a new emphasis in Singapore's outdoor education arising from global imperatives to address a range of complex

environmental issues. One MOE colleague, Adam, highlighted global warming as an impetus for the change in focus.

The main issue will be global warming  
because global warming  
will affect all the weather  
and if we see around  
now we are getting freak weather.  
We are getting floods  
and so on,  
sea level is rising  
so for them  
they have to learn about it  
so that hopefully everything  
goes better lah. (interview notes, 32M, 19.2.09, p. 12)

Closer to home, outdoor education was seen as a way to “toughen the kids up”. Some of the participants felt that outdoor education should continue to fulfil its original function and purpose of preparing youths for National Service. A few participants, including a CHR teacher, Anita, felt that outdoor education should serve the needs of the nation-state’s military defence.

I was going to say about National Service.  
A lot of questions have been brought up  
about,  
about the NS guy who died,  
the regular<sup>45</sup> also died  
with no apparent reason  
then the question was  
their medical examination,

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<sup>45</sup> A full-time army personnel.

was it good enough  
and when that thing was also addressed.  
When they said they did the ECG  
and everything already  
and the person was still alright.  
Then the next question was  
how come this person managed  
to get NAPFA<sup>46</sup> test Gold, Silver lah,  
when actually was certified fit.  
So now you are in secondary school  
then everybody asking them  
why were they not prepared  
for the CCA  
for the ruggedness,  
for this kind of training.  
Is it that the training provided in NS,  
is it like too much?  
Is there anything comparable at secondary school level?  
Then, of course outdoor adventure comes in.  
Does the outdoor adventure prepare them  
for national service and all that?  
So of course,  
that's emerging thing that is going to come out.  
So I think,  
even the parents will be asking  
what kind of CCA should I put my kid in  
so that next time  
stands the best chance of surviving  
the NS. (interview notes, 24T, 28.10.08, pp. 9-10)

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<sup>46</sup> National Physical Fitness Assessment. It is a norm-reference test used in the schools and the army to determine fitness levels.



At a personal level, many of the participants considered outdoor education an effective way to inculcate values. Like many teachers in CHR, Janet, from MOE, felt that:

Another big area  
would be character development  
or social emotional competency or learning,  
you know  
whatever you call that.  
I think with socialisations,  
I think our youths  
nowadays,  
the values systems have  
kind of changed  
from what it used to be.  
Like in my time,  
our parents' time,  
or even many decades before,  
with the changing values,  
I'm not sure  
but I kind of suspect  
that maybe education,  
OE can actually do  
something towards that. (interview notes, 12M, 30.9.08, p. 5)

Outdoor education is also seen as serving the function of keeping students engaged and interested. In the case of CHR, many teachers felt that outdoor education could interest or even engage some of those students who are not keen on attending school and help them stay out of trouble. Farah felt that even parents would prefer their children to be engaged in school than getting into trouble outside school. She said:

Outdoor education in Christchurch ah?

I think the parents would say

actually it's okay

because I think

they would rather

have their kids in school

than they run off somewhere.

And you know

the police come

and say your son did this.

I think coming from

the point of parents,

a normal auntie would say

they'll rather have their kids

in school,

which is safe. (interview notes, 15T, 16.10.08, p. 5)

### **Approach to outdoor education in Singapore**

Many of the participants I interviewed felt that integrating outdoor education into the curriculum is a possible approach to outdoor education. Anita said:

I think that everything

should be integrated into

a part of the academic

like maybe you want to

have a science lesson or

you want to calculate free fall

or something,

$g = 10\text{m/s}$  or whatever, right?

You know you could actually

make it more experiential.

Even in the classroom also,  
they get tied together,  
very exciting.  
You want to,  
you want to  
write a descriptive essay  
about wind and  
everyone climbs on top of  
this very high structure,  
tower,  
stand there for five minutes  
and you  
write a five-paragraph,  
write a one-paragraph,  
writing only wind,  
creating atmosphere,  
you know what I mean?  
Then the mathematical aspect  
is always there. (interview notes, 24T, 28.10.08, p. 9)

Many of these teachers saw the experiential nature of outdoor education as appealing and felt that subjects like National Education<sup>47</sup>, geography, history and the sciences could be integrated with it. The majority of participants, however, felt that the integration of outdoor education with academic subjects must have purpose and meaning.

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<sup>47</sup> National education. It is not a subject but needs to be infused into the curriculum as part of the TSLN vision.

**A summary: How might insights drawn from CHR inform understandings of the purposes that outdoor education does, could and should serve in Singapore?**

The following summary refers to the theoretical interpretive framework on purposes and functions of outdoor education, adapted from Biesta (2009), presented in chapter two. The participants in this study viewed outdoor education in Singapore as fulfilling the socialisation function of addressing complex global issues such as global warming and other environmental imperatives. In addition, outdoor education was considered to be an effective means of developing healthy and fit citizens who could contribute to the military defence of the nation-state, which could be seen as fulfilling the qualification function of outdoor education. Lastly, outdoor education was seen as having the socialisation function to develop youths, in the area of character, personal and social development. The purposes and functions of outdoor education in Singapore's education system and society will be discussed in greater detail in the next chapter, which is the concluding chapter, of this thesis.

## Chapter Seven:

### Conclusions

In this chapter, I examine the purposes outdoor education *does* serve, *could* serve and *should* serve in Singapore's education system and society. I agree with Biesta (2009) that one way to develop a framework for discussions about the purposes of education is to start from the functions that educational systems perform. I therefore developed my theoretical interpretive framework (see Fig. 2 in chapter 2), adapted from Biesta's (2009) conceptual framework, as a basis for deliberating on the purposes of outdoor education in Singapore.

I explore the links between my theoretical interpretive framework, the grounded theory data from the case study and the possible scope of outdoor education's purposes from the literature review. I analyse the matches and mismatches from among these links to deliberate on the purposes that outdoor education *does*, *could* and *should* serve in Singapore. This is followed by a discussion of the wider implications of the findings of this study. This chapter concludes with some recommendations for how outdoor education can be sustained and can flourish in Singapore's education system and society.

#### The Purposes Outdoor Education *Does* Serve

This section explores the distinctive purposes that outdoor education currently serves in the context of the Singapore education system and society. Context is important because outdoor practices, if they continue to be grounded in universalist assumptions, may gradually lose their relevance, especially in the fluid educational landscape of a globalised nation-state like Singapore.

### **Building resilience**

Outdoor education in Singapore serves the purpose of building resilience in its people. This is evident in the desired and perceived outcomes of outdoor education at CHR and the data produced from interviews with the teachers, many of whom testified that their students grew more confident after their outdoor education experiences and that students spoke up more often and were more confident. Outdoor education is perceived to have contributed to the students' resilience, that is, the character, personal and social development, of the child.

My literature review of outdoor education in Singapore demonstrates the pervasive notion of building resilience through outdoor education and the changing context of this notion over time. From the political rhetoric of building a “rugged society” (The Straits Times, 1990, p.1), the notion of resilience is expanded to embrace mental and emotional toughness through outdoor education (Shanmugaratnam, 2004a). Despite Brookes' (2003a, 2003b) and Cosgriff's (2008) argument that character and personal development through outdoor education is a flawed concept, outdoor education practices in Singapore continue to be entrenched in a neo-Hahnian outlook. The strongly held belief that outdoor education is an effective means of developing healthy and fit youths as well as a pathway to character, personal and social development, is reflected in the CHR case study as well as in the local government officials' speeches.

In the light of my theoretical interpretive framework, building resilience through outdoor education can be seen as fulfilling the three functions of outdoor education (qualification, socialisation, subjectification) in Singapore. The qualification function is about providing students with the knowledge, skills and understanding to “do something” which can range from the very specific (eg. training for a particular job) to the much more general, such as the teaching of life skills (Biesta, 2009). In the case of outdoor education in Singapore, building resilience fulfils the qualification function through the teaching of life skills.

After four decades of independence, the challenges facing Singapore remain the same, although they may take various economic, ideological and/or cultural guises. That is, Singapore's challenges, as interpreted by many local scholars, are always forms of threat (Velayutham, 2007), as a result of its lack of natural resources, small land mass, and being surrounded by bigger countries such as Malaysia and Indonesia. Hence, building resilience fulfils the qualification function of outdoor education in Singapore, which fits well with the government's emphasis on the economic progress of the country.

At the same time, building resilience appears to fulfil what Biesta terms the socialisation function of education. This has to do with the many ways in which, through education, we become members of and part of particular social, cultural and political "orders". Outdoor education influences each individual through group activities that engage teams of students in authentic learning situations. We see the impact of socialisation through outdoor education demonstrated at CHR where staff and students identify themselves with, and pride themselves on "belonging" to, a school with a distinctive outdoor education programme.

Biesta (2009) argues that any education worthy of its name should contribute to processes of subjectification that allow for those educated to become independent in their thoughts and actions. Building resilience could fulfil the subjectification function of outdoor education because this neo-Hahnian outlook for outdoor education could emphasise Hahn's first expeditionary learning principle (primacy of self-discovery). However, this is not evident from the CHR case study because of the way the outdoor activities are organised. The activities are designed for group participation and time is not allocated for self-discovery or exploration. Even after-activity reviews and debriefing sessions are conducted in a group setting. The personal blogs that were posted were largely similar in thoughts and expressions and did not reflect any conflicting views. The seemingly conformist responses of the students do not necessarily mean that the subjectification function cannot be fulfilled. The issue lies in the nature of facilitation, as highlighted by Mike Brown (2002).

Drawing on the evidence from the literature review, the CHR case study and my theoretical interpretive framework, one purpose that outdoor education in Singapore does serve is building resilience. Although building resilience fulfils the qualification and socialisation functions of outdoor education in Singapore, the CHR case study suggests a lack of focus on the subjectification function. I will return to a discussion of the subjectification function in a later part of this chapter.

## **The Purposes Outdoor Education *Could* Serve**

### **Building social skills**

The teachers at CHR cited a lack of social skills as one of the major challenges confronting Singaporean youths today. The urbanised environment, coupled with the proliferation of information technology (IT), has changed the way youths relate to one another, often through electronic communication devices rather than communicating interpersonally with one another. This lack of face-to-face interpersonal skills of youths is perceived to be a problem not just by the teachers at CHR but also at the national level.

The Ministry of Education recently introduced to schools a set of socio-emotional competencies that should be taught and developed in students over time. These socio-emotional competencies refer to a set of skills “to recognise and manage emotions, develop care and concern for others, make responsible decisions, establish positive relationships, and handle challenging situations effectively” (Ministry of Education, 2009b, p. 1). The MOE believes that such skills and attitudes are necessary for students to understand and appreciate the interrelatedness among people and their individual differences, along with the ability to communicate effectively, which are considered crucial in the current era of globalisation. Zhenghua secondary school is one such school that includes building socio-emotional competencies in their students through outdoor education (Zhenghua Secondary School, 2010). Therefore, if appropriately designed and



facilitated, outdoor education in Singapore could serve the purpose of building social skills in youths.

This concept of building social skills through outdoor education is not new. As noted in the literature review, the aims of developing personal and social skills appear to have prevailed in the history of outdoor education in countries like the UK, Scotland, New Zealand, Australia and the USA. In the light of my theoretical interpretive framework, building social skills could be considered as fulfilling largely the socialisation and qualification functions of outdoor education in Singapore. Building social skills help the individual acquire the competency (qualification function) to interact with others, thereby creating a socially desirable behaviour for a certain social order, as described in Biesta's (2009) socialisation function of education.

### **Building an emotional bond with the nation**

Outdoor education in Singapore could serve the purpose of building an emotional bond with the nation. Although political apathy and a lack of emotional attachment to the country do not feature in the CHR case study, politicians and local scholars have raised these as concerns, as discussed in my literature review. Living in an era of globalisation, coupled with a hectic pace of life, local scholars (eg., Horsky & Chew, 2004; Neo & Chen, 2007; Ooi & Shaw, 2004; Ooi, Tan, & Koh, 1999; Velayutham, 2007; Yeoh & Kong, 1996) from various fields are beginning to express their concern over the way people are becoming placeless, or rootless, and the impact this has on our relationship with the world around us (Stewart, 2003). In Brenda Yeoh's and Lily Kong's (1996) study of the notion of place in Singapore, they express a concern over an emerging trend that could see future generations of displaced Singaporeans who have little sense of their history. According to Yeoh and Kong, few people in Singapore stay in places long enough to develop deep relationships with those places. They argue that place and history are closely intertwined in the rich texture of individual and social life; there is no history without place and no place without history (Yeoh & Kong, 1996). In recent

research by Velayutham (2007), he describes the Singapore home as “a hotel for emigrant Singaporeans who come on short visits and play tourists taking in things that they have missed about Singapore and leave once the nostalgia fades” (p. 181).

Since the early 1990s, the Singapore government has shifted its strategic direction to embrace globalisation through the restructuring of its economy. This strategy of “going global” brought with it some new challenges such as the problem of emigration and the drop in fertility rate (Velayutham, 2007). The government not only had to persuade the more mobile and affluent Singaporeans to stay, it also had to attract “talents” from overseas to meet the demands of the new economy. The extent of this issue is portrayed by Gillian Koh (2008):

Minister Mentor Lee Kuan Yew said in February that Singapore is losing 1,000 capable people "at the top end" every year. The Government has attracted foreign talent, so despite losing our own and our low fertility rates, we have a net "brain gain". What is unclear is whether a higher presence of foreigners might not precipitate an even greater exodus of Singaporeans. (p. A22)

The government realised that it took more than economic success to bind Singaporeans in an affective commitment to the nation-state. Velayutham's (2007) research findings indicate that in spite of the government's quick response to global and local dilemmas, the task of nurturing a citizenry with a positive emotional attachment to the country could not be imposed. Tan Soon Yong et al. (2009) also lamented that “building new and active citizens who not only understand and accept issues, but take it upon themselves to get involved and even lead such efforts” (p. 272) is an even steeper hill to climb.

Given the hype generated around the challenges of keeping Singaporeans rooted in the face of a globalised world, I was a little surprised that the participants in the CHR case study did not mention outdoor education as fulfilling the purpose of building an emotional bond with the country. I agree with David Orr (1992) that developing a sense of place is important and the importance of place in education

has often been overlooked. He reminds us that those things closest to us were often the most difficult to see and, moreover, place has always been a nebulous concept. Outdoor education in Singapore could serve the purpose of shaping in our youths a strong connection with Singapore, particularly with their local places. Outdoor education, with its emphasis on experiential learning in particular (often natural) settings, could provide multi-layered opportunities for place-based education. However, attachment to place grows over time until “mere words and thoughts give way to something deeper” (Orr, 2005b, p. 102).

Outdoor education could deliberately “slow down” learners’ experiences so that they could be awakened to the details of a particular place (Stewart, 2003) and therefore deepen their sense of connection to it. However, it takes time and patience for such deep connections to develop. Therefore, outdoor education in Singapore could emphasise the development of the learner’s sense of place to help them connect to their community and, eventually, instil in them a commitment to serve as active, contributing citizens. For such an education to occur, we as outdoor educators must allow ourselves and our students the time and space “to give ourselves up to a particular landscape, to dwell on it, wonder about it, imagine it, touch it, listen to it, and recollect” (Orr, 2005b, p. 106).

The purpose of building an emotional bond with Singapore through outdoor education could be considered as fulfilling the socialisation function of outdoor education in my theoretical interpretive framework. Building an emotional bond with the country may be construed as socialising an individual into what Biesta (2009) terms a “‘specimen’ of a more encompassing order” (p. 40). I also view this purpose as serving a subjectification function, best understood as the opposite of the socialisation function (Biesta, 2009). Through place-based education, I believe that students could be more actively involved in national issues, to which Singaporeans do not currently appear to form a deep sense of ownership. By helping students develop strong connections to Singapore, outdoor education could alleviate the current political apathy among Singaporeans, in which national issues are deemed to be the government’s responsibility. Outdoor education could

influence students at a more individual level by creating, in each learner, a heightened sense of national identity and pride. Although building an emotional bond with the country could create a particular kind of social order for Singapore, it could also produce individuals who think independently and resist the order that has been created. This could create a more dynamic and diverse society, with a sense of connection to the country, especially in the light of the government's willingness to consider broader views and approaches to national issues (H. L. Lee, 2010).

### **Building ecological literacy**

Outdoor education in Singapore could also serve the purpose of building ecological literacy in students. Ecological literacy is best understood as “a basic comprehension of ecology, human ecology and the concepts of sustainability, as well as the wherewithal to solve problems” (Orr, 2005a, p. xi). As discussed in my literature review, I agree with Bucknell and Mannion (2006) that to justify and establish outdoor education in contemporary curricula, it is in relation to its contribution to broad environmental goals that outdoor education might be able to claim a distinctive purpose. Building ecological literacy could lead to an understanding of environmental issues, faced locally and globally, thereby creating awareness as well as generating possibilities for these issues to be tackled, as noted by some of the CHR teachers and MOE staff in the case study.

Although Singapore has achieved a balance between economic growth and environmental sustainability, the government recognises that the global environmental challenge is becoming greater as we progress (S. Y. Tan, et al., 2009). Therefore, as a first-world nation, Singapore has a responsibility to be proactive in addressing global environmental challenges as well as addressing the root causes of excessive consumption (Martin & Ho, 2009). S. Y. Tan, et al. (2009) also observe that as the residents of Singapore become more affluent, many of them seem less willing to sacrifice consumption and convenience for the efforts needed to improve the environment. This indifference, which is not unlike the political apathy and a lack of emotional bond with the country, cited earlier in the

literature review, is compounded by the public's notion that such issues are to be addressed by the government. The general indifference of Singaporeans to global environmental issues adds to the importance of building ecological literacy in students.

This purpose of building ecological literacy through outdoor education primarily fulfils the qualification function, in that students could be equipped with the fundamentals of ecology. Although the Singapore education system has an excellent reputation for having a rigorous academic curriculum, especially in reading literacy and numeracy, the curriculum appears to have neglected ecological literacy, owing to the lack of awareness and discussion of ecological issues in Singaporean society at large. There is considerable attention given to teaching our young to read, count and compute, but not nearly enough has been given to ecological literacy. No responsible education system today can ignore environmental issues. Although there have been efforts in Singapore to incorporate environmental elements into the formal curriculum, in subjects such as social studies, geography and biology since the 1980s (S. Y. Tan, et al., 2009), the impact of these efforts appears to be limited.

Tay (2006) found that in a typical secondary school level camp in Singapore, there was an absence of environmental education and he interprets this as indicating that environmental education is not seen as important. He concludes that it is essential for local schools to play a more direct and focused role in developing environmental awareness and sustainability among our young through outdoor adventure programmes. Ideally, outdoor education curriculum should be introduced in primary schools. Although there have been attempts made by schools such as Henry Park Primary and Nanyang Primary schools to delve deeper into environmental issues through the introduction of topics such as climate change (D. L. Ong, 2009), more could be achieved if these environmental issues could be taken beyond the classrooms into the outdoors.

I feel that if we could develop an outdoor education curriculum that builds ecological literacy, it would have great potential for helping our students to understand and be engaged with environmental issues. Beyond fulfilling the qualification function, outdoor education in Singapore could serve the purpose of building ecologically literate individuals who could engage in critical discussion and deliberation about environmental issues, thereby fulfilling yet another aspect in what Biesta (2009) terms the subjectification function of education. Over time, a social order comprising the ecologically literate could be created, thereby impacting the socialisation function as well.

### **Other purposes outdoor education could serve**

My literature review of outdoor education practices from other parts of the world reveals some of the other purposes that outdoor education could serve in Singapore. For example, critical outdoor education, as discussed by Allen Hill (2008), Martin (1999) and Phillip Payne (2002) could help students to develop critical perspectives on pressing social, political and environmental imperatives as these relate to people's understandings of their relationships in and with outdoor environments. Outdoor education could also serve the purpose of educating students about environmentally sustainable living (e.g., Boyes, 2000; Webster, 2004), by focusing explicit attention on specific cultural beliefs and outdoor pursuits and practices that may be perpetuating (or doing little to ameliorate) the current ecological crisis. However, problems of sustainability differ from place to place and unless basic ecological literacy is taught in Singapore, efforts to promote sustainability through outdoor education may prove futile. An emphasis on critical perspectives and sustainability issues in outdoor education could contribute to the fulfilment of Biesta's (2009) subjectification function, which is the function of education that receives the least attention in Singapore.

### **The Purposes Outdoor Education *Should* Serve**

Biesta (2009) argues that the question of good education is composite and that in our discussions about the purposes of education we need to distinguish between the

ways in which education can contribute to the qualification, socialisation and subjectification functions. In this respect, good outdoor education for Singapore should also serve these three functions. I go one step further in my theoretical interpretive framework, by including global influences and local contexts as matters to be considered realising quality outdoor education in Singapore.

As discussed in my literature review, education in Singapore has always been a handmaiden to the nation's dual role of sustaining economic development and establishing a sense of national identity (Horsky & Chew, 2004). In a nutshell, education in Singapore appears to be developing what C. Tan (2008) describes as the "ideal citizen", who is, "an expert problem-solver who has the drive to innovate, learn continuously, think globally but be rooted locally" (p. 111). I agree with C. Tan and consider the expert problem-solver, with the drive to innovate and think globally, the result of the subjectification process that good education should fulfil, the ability to learn continuously and think globally, as an outcome of the qualification function, and finally, the act of staying rooted locally, as an outcome of the socialisation function that education in Singapore should serve. In this respect, good outdoor education in Singapore should also seek to develop C. Tan's "ideal citizen". To do so, outdoor education in Singapore should seek to go beyond the purpose of building resilience, to also serve the purposes of building an emotional bond with the country and building ecological literacy. Working towards these three purposes would contribute to developing C. Tan's (2008) ideal citizen, and would also assist in building an emotional bond with the country and building ecological literacy, neither of which are adequately addressed within the current Singapore education system.

In the light of my theoretical interpretive framework, these three purposes contribute to the functions of qualification, socialisation and subjectification. Outdoor education, being a practice-based discipline that includes risk-taking adventures, obviously lends itself to building resilience. Although there is a strong tendency in the CHR case study to confine outdoor education to qualification and socialisation, there is room for subjectification to be fulfilled, especially in the way

an outdoor education programme is being designed and delivered. The inclusion of solo walks and self-reflection, for example, could contribute the subjectification process. Hence, building resilience could contribute to qualification, socialisation and subjectification.

The emphasis on place-based education in recent outdoor education literature suggests how it could contribute to building an emotional bond with the country. Place-based education emphasises repeated field trips to one site (or a small number of sites) over a sustained period of time, and these could help to develop young people's sense of connection with the country. Although the purpose of building an emotional bond with the country emphasises the socialisation function of education, that is, the representation of a social order into which students should fit, it could and should also contribute to subjectification by creating in students the desire to take national issues seriously (deemed presently to be the responsibility of the government).

In the light of pressing global environmental concerns, it is timely and appropriate for outdoor education in Singapore to contribute to the purpose of building ecological literacy. Although ecological literacy can also be taught in subjects like geography and science, outdoor education presents authentic learning situations beyond classrooms, which could accentuate the relevance of ecological literacy. Building ecological literacy fulfils the qualification function, with the possibility of contributing to the subjectification and socialisation functions, as discussed in the previous section.

Clearly outdoor education in Singapore can and does serve many other purposes, such as building social skills, but these skills should not necessarily be a high priority for the attention of outdoor educators because they can be honed in many settings, of which outdoor education is just one. Other possible purposes that outdoor education in Singapore could serve, such as developing critical perspectives and sustainability issues, can also be served by areas other than outdoor education. The purposes on which I have focussed, that is, building



resilience, building an emotional bond with the country, and building ecological literacy, can be interpreted as bridging the gap between the educational purposes that outdoor education currently serves in Singapore and should serve into the future.

## **Implications**

I draw attention here to two implications arising from my study of the purposes of outdoor education in Singapore. The first is that outdoor education requires recognition of its own disciplinary base and the second concerns professional development pathways for teachers. These implications will also direct the recommendations arising from this study.

### **Outdoor education as a discipline**

From the three purposes that outdoor education in Singapore should serve, outdoor education should be recognised as a discipline rather than as a process of learning in schools. Similar to Lugg's and Martin's (2001) findings on Victorian schools, the emphasis on outdoor education as a process rather than as a content area might have contributed to the difficulties that outdoor education teachers face in establishing and implementing their programmes in Singapore.

Although an outdoor education component was included in the 1999 physical education (PE) curriculum for junior colleges, it was taken out when the PE syllabus was revised in 2006. The current PE syllabus by MOE (2006) lists outdoor activities as the "other physical activities" that can be included in the PE curriculum as a means to attain desired learning outcomes. In the case of Christ Church Secondary School, outdoor education is part of the CME curriculum instead of the PE curriculum. Although it resides with another subject, outdoor education is similarly perceived as a means to achieve the aims of the subject. Therefore, other than listing the outdoor activities that can be conducted during the PE or CME lessons, not much emphasis has been placed on the objectives, scope,

content and expected learning outcomes of these outdoor activities. This lack of clarity of the content and learning outcomes further undermines the idea that outdoor education should be understood as a discipline in its own right.

### **Professional development pathways for outdoor educators**

As with other disciplines, teacher competency can impact significantly on the delivery of outdoor education in schools. However, the inclusion of outdoor education within the PE syllabus in 1999 suggests that its objectives can be achieved through PE. It is also assumed that PE teachers who went through a few days of outdoor pursuits experience within the PE teaching diploma course, can teach outdoor education. Despite the inclusion of outdoor education components in the PE syllabus from 1999, the pre-service teacher training by the National Institute of Education has not included teacher-training courses in outdoor education. The lack of outdoor education teaching modules during pre-service education has led to inadequate preparation of teachers for teaching outdoor education in schools. This has indirectly resulted in an over-reliance on service providers to assume the responsibilities of conducting camps and outdoor education sessions for schools.

## **Key Recommendations**

The following recommendations are based on the implications of this study, the literature review and my professional experience in the Ministry of Education in the last eight years.

### **Diversify the outdoor education curriculum**

Outdoor education is considered as one of the co-curricular activities offered in Singapore schools. The majority of schools conduct outdoor education in the form of clubs and societies, school camps or trips. Only a handful of schools in Singapore include outdoor education as part of their formal curriculum. As seen in the case of Christ Church Secondary School, it is included as part of the CME curriculum. However, teachers find it difficult to accept and implement outdoor

education as an area of learning due to its lack of content and intangible outcomes.

Hence, I see outdoor education continuing to reside within the co-curricular framework in the Singapore school system. This is possibly the optimal way to reach out to the majority of the students in the schools since provision is for every student to be exposed to some form of outdoor camping experiences. Other than a co-curricular policy that governs the provision of outdoor education in the schools, there is no standard curriculum to guide the delivery of outdoor education in Singapore schools. Therefore, for effective delivery, it is timely that the content and outcomes be made explicit through a curriculum that fulfils the three purposes outdoor education in Singapore should serve. It should be inclusive and cater to the different levels of outdoor education within the co-curricular framework. Such a curriculum could be a guide to schools and teachers in their implementation of outdoor education within the co-curricular framework. For schools like Christ Church Secondary School that wish to carve a niche in outdoor education, they could develop elective modules to cater to their own needs. In such cases, outdoor education could be one of the academic subjects offered to students who excel in and/or display an aptitude for outdoor education. In this way, specialised teachers could be deployed in these niche schools to conceptualise and teach the subject.

### **Step up pre-service teacher education**

Teacher training in outdoor education remains as one of the pressing challenges for the Singapore education system. The lack of outdoor education teachers in Singapore could be one of the reasons why outdoor education has not been developed to its full potential. If outdoor education is to be effective in fulfilling the purposes discussed in the previous sections, pre-service training in outdoor education needs to be stepped up. Outdoor educators who are conversant with outdoor education theories and skills would be needed in schools to help fulfil the purposes of outdoor education described in this study.

Such training should come in the form of degree or elective courses offered at university level. The current in-service training courses provided by MOE is

inadequate in providing teachers with the skills and knowledge for outdoor education. NIE, the sole provider of pre-service training for teachers in the various disciplines has yet to offer a course for outdoor educators. To date, only one tertiary institution in Singapore, Republic Polytechnic, has initiated a Diploma of Adventure Based Learning. However, graduates of this programme will not be registered as teachers and cannot fill the void in pre-service teacher training.

### **Enable sustained policy implementation at schools**

The findings have demonstrated that policy implementation and outcomes are problematic and controversial. This is evident in the case study of Christ Church Secondary School. Although leadership, staff, funding, facilities and opportunities were found to be some of the reasons that contribute to the success of outdoor education in this study, challenges such as not coping with the academic curriculum and heavy workload were cited by the majority of the teachers. One of the major insights arising from this study is the need to take into account these challenges and motivation during school-based implementation of outdoor education. Not only does a school-based change require an enthusiastic teacher community that communicates effectively with and is supported by the school administrators, it requires sufficient support in terms of expertise in the subject area.

Many policy reforms premise themselves on an assumption that they are self-evident and self-explanatory. Therefore, once the policies are cascaded to the schools, it is assumed that leaders and teachers will somehow find ways to implement them. However, based on my personal experience from this research, I agree with Ng Pak Tee's (2008) view that "while policy may have the right intentions, to really affect the core of learning in schools, changes need to go beyond the system-level structures and provisions to address deep and subtle issues" (p. 14). Otherwise, the implementation of a system-wide transformation will only lead to elusive goals. Therefore, as we await system-wide changes, MOE could certainly do more to enable sustained policy implementation at the schools'

levels. One way would be for MOE to deploy outdoor education specialists<sup>48</sup> to work alongside teachers in the schools for sustained periods of six to eight months<sup>49</sup>. This could prove to be mutually beneficial to the specialists and the schools that they work with. Many of the specialists, like myself, have been posted to the headquarters and might have lost “traction” with the ground due to our long absence from school settings. My fieldwork in this study has reconnected me to the schools and reminded me of what it was like to be implementing rather than conceptualising policies.

### **Considerations for future research**

Further research could be conducted to continue to clarify the purposes of outdoor education in Singapore. More insight could also be gained from other schools with more diverse backgrounds. This could contribute to deeper understanding of outdoor education in Singapore, as it would allow for more opportunities for voices from a diversity of schools to be heard, a scope that is found limiting in this study. Comparative studies could also be carried out with the different types of schools in Singapore by exploring the different approaches adopted for outdoor education. Such insights could have implications for the policy and practice of outdoor education in schools. It might also be worth considering what and how outdoor education is distinctive and if its purposes could be served by any other disciplines.

Some students in this study expressed their discomfort with outdoor activities and their unwillingness to take part in them. Further research could elucidate the reasons for their reluctance and the extent to which societal and psychological factors have come into play. To this end, there should be exploration of appropriate pedagogies for outdoor education, which has implications for students’ learning and pre-service teacher education.

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<sup>48</sup> Specialists in the MOE headquarters with expertise in specialised fields.

<sup>49</sup> The six to eight month period reflects a semester in the school calendar which I feel is sufficient for specialists to help with policy implementation.

The findings of this thesis could inform policy and practice on the purposes of outdoor education in Singapore. This research, however, has only ruffled the surface with regard to these aspects. More could be done in the areas of curriculum development and learning theories. Future studies could also explore the potential of outdoor education in the enhancement of the pupils' learning in and outside the formal classroom.

One of the aims of this study is to inform future research studies to further expand and diversify the body of knowledge on outdoor education practice in Singapore. At the same time, more research into the areas of outdoor education in Singapore could contribute towards informing practice in other Asian countries, where research in outdoor education is scarce.

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### Appendix A: Demographics of the participants of this study.

Gender	Ethnicity	Age group	Job scope	No. of years in CHR/CCAB	No. of years in MOE
Female	Chinese	40-49	HOD, Staff developer, CPA, Maths	4-6	7-10
Male	Malay	40-49	SH, PE	4-6	17-20
Male	Chinese	30-39	Teacher, PE, Math	1-3	1-3
Male	Chinese	40-49	HOD, PE	11-13	11-13
Male	Chinese	30-39	Teacher, D and T	1-3	4-6
Male	Chinese	30-39	Relief teacher	1-3	1-3
Male	Chinese	20-29	Trainer, IT	less than 1	less than 1
Female	Malay	40-49	Teacher, English, Humanities	4-6	11-13
Female	Chinese	20-29	Teacher, Math, CPA	4-6	4-6
Female	Malay	20-29	Teacher, Art	less than 1	less than 1
Female	Chinese	20-29	Teacher, Science	less than 1	less than 1
Female	Chinese	40-49	Camp Teacher, Science	4-6	14-16
Male	Chinese	50-59	Counsellor	1-3	more than 20
Female	Indian	20-29	Teacher, Literature, English	1-3	1-3
Female	Malay	40-49	SH, Malay	4-6	17-20
Female	Chinese	40-49	HOD, Pupil development	4-6	11-13
Female	Malay	20-29	Teacher, Art	4-6	4-6
Male	Chinese	30-39	Teacher, D and T	4-6	7-10
Male	Chinese	20-29	Teacher, PE, CPA	1-3	1-3
Female	Chinese	20-29	Teacher, PE	less than 1	1-3
Male	Chinese	12-14	Student, BB, Bowling	1-2	NA
Male	Chinese	12-14	Student, Bowling	1-2	NA
Female	Malay	15-17	Student, OAC	3-5	NA
Female	Chinese	15-17	Student	3-5	NA
Male	Chinese	12-14	Student, BB	1-2	NA
Male	Chinese	15-17	Student, BB	3-5	NA
Female	Chinese	12-14	Student	1-2	NA
Female	Chinese	15-17	Student, OAC	3-5	NA
Female	Malay	15-17	Student, OAC	3-5	NA
Female	Chinese	15-17	Student, Councillor, Netball	3-5	NA
Male	Chinese	15-17	Student, Adventure racer	3-5	NA
Female	Chinese	30-39	CCAB OE officer	1-3	4-6
Male	Chinese	40-49	CCAB OE officer	1-3	11-13
Male	Malay	40-49	CCAB OE officer	4-6	11-13

# Appendix B: Interview questions.

Interview with staff members						
<b>Background of interviewee</b>	How long have you been teaching/working in the school?	What are your main duties in the school? What subjects do you teach?	What is your involvement in the OE programme of CCSS?	What do you like or dislike about the OE programme in CCSS?		
<b>What shapes OE in CCSS?</b>	Who plans and teaches the OE curriculum in the school? What are their qualifications?	Where and how do teachers get training in OE?	When a new staff joins CCSS, how are they informed of the OE in CCSS?	What are some of the considerations and thought processes that went into the planning of OE curriculum?	What is the school's approach to OE? Why? When? How? Milestones?	
<b>What are the outcomes of OE in CCSS?</b>	Why do you think OE is a significant part of CCSS?	Do you think OE has a role in this school? Why or why not? If so, what is/are the role/roles?	Are there any philosophy and/or policy that guide OE in the school? If so, what are they?			
	What are some of the outcomes sought by OE?	Why are these outcomes important? Can they not be achieved through any other means?	How is the OE curriculum evaluated or measured?	Do changes occur based on evaluation? How are changes implemented? Any examples?	If I were to ask parents/students about the value of CCSS OE, what do you think they would say?	
<b>Does OE in CCSS influence educational practices and policies in Singapore?</b>	Who are the stakeholders? How do they view the approach of OE in this school?	What is the level of support for OE in this school? Eg. cluster schools, MOE, parents, community etc	Do the stakeholders have a say in the OE curriculum in this school?	Does the OE in this school have an influence on the OE in other schools? How?		
<b>Is there a role for OE in the broader context of S'pore education system and society?</b>	Would you encourage schools in S'pore to introduce an OE curriculum like in this school? Why?	Do you think there are emerging issues that OE can be effective in addressing? Eg. in school or in the larger context of S'pore	What do you think is the potential of OE in S'pore? What can OE not do?			



**Interview with students**

<b>Background of interviewee</b>	<b>Which primary school did you come from? Did they have OE in the school?</b>	<b>Which level are you studying at? Why did you choose CCSS?</b>	<b>What do you like most about CCSS?</b>	<b>What do you dislike most about CCSS?</b>	
<b>What shapes OE in CCSS?</b>	How often are OE programmes conducted? How many times have you attended? How long do they last?	Who teaches the OE curriculum in the school? Where and how?	What are the things taught in the OE curriculum?	Have you ever been involved in the planning of the OE programmes? If so, how was it like?	
<b>What are the outcomes of OE in CCSS?</b>	What do you like about the OE curriculum?	What do you not like about the OE curriculum?	Can you describe the most memorable OE experience?	What are some of the things you would tell your friends thinking of coming to CCSS?	Have you heard of friends who don't like or like the OE in CCSS? What are their experiences?
<b>Does OE in CCSS influence upon educational practices and policies in Singapore?</b>	Are your parents supportive of OE curriculum in this school?	Do your friends from other schools know about the OE programme in this school?			
<b>Is there a role for OE in the broader context of S'pore education system and society?</b>	Do you think OE is important? Why?	Do you think all schools in S'pore should have an OE curriculum like in this school? Why?			

**Appendix C: Informed consent forms.**

**Centre for Excellence in Outdoor and Environmental Education**

**Information Sheet (Parent/Guardian)****THE ROLE OF OUTDOOR EDUCATION IN THE SINGAPORE  
EDUCATION SYSTEM: A CASE STUDY.****Researcher responsible for the Project – Susanna Ho**

I am Susanna Ho, currently a postgraduate student of La Trobe University, Bendigo in Australia. I am undertaking this research project as part of the fulfillment towards a doctorate degree.

The research in which your son/ daughter/ ward is invited to participate is concerned with understanding the role that outdoor education plays in the Singapore education system. The intent of the study is to describe the scope of outdoor education in his /her school and to explore the role that outdoor education plays in the school.

His/ her participation is voluntary. As a contributor to the study, he/ she will be asked to participate in an interview session. Each interview session is anticipated to take approximately half an hour. He/ she will be asked about his/ her participation in the school's outdoor education programmes and some questions relating to what he/ she thinks the role of outdoor education is. He/ she will also be asked about the experience he/ she has by participating in the programmes and the learning he/ she derives from. All interviews will be audio-taped, unless he/ she requests for the recorder to be switched off.

The information he/ she provides will be strictly confidential. Any reporting or publications produced from this research will use false names if describing participants' responses. He/ she is free to withdraw consent and to discontinue participation in the study at any time, without prejudice. The results from the study and his/ her personal data will also be made available to you on request.

Any questions regarding this project can be directed to myself:

Susanna Ho – Centre for Excellence in Outdoor and Environmental Education (ph. 90188086) or to my supervisors

Prof Noel Gough – Centre for Excellence in Outdoor and Environmental Education (email: [n.gough@latrobe.edu.au](mailto:n.gough@latrobe.edu.au))

Dr Peter Martin – Centre for Excellence in Outdoor and Environmental Education (email: [p.martin@latrobe.edu.au](mailto:p.martin@latrobe.edu.au))

This research project has approval from the University Human Research Ethics Committee. If you have any queries or complaints that the investigator has not been able to answer to your satisfaction, you may contact the Secretary, Human Ethics Committee, Research and Graduate Studies Office, La Trobe University, Victoria, 3086, (ph: 0394791443, email: [humanethics@latrobe.edu.au](mailto:humanethics@latrobe.edu.au))



**Centre for Excellence in Outdoor and Environmental Education****Consent Form**

I, \_\_\_\_\_ (parent/ guardian) of \_\_\_\_\_ (participant) have read and understood the information sheet and consent form, and any questions I have asked have been answered to my satisfaction.

I agree for my son / daughter / ward to participate in the project, realizing that he / she may withdraw at any time. I agree that research data provided by my child / ward or with his / her permission during the project may be included in a thesis, presented at conferences and published in journals on the condition that neither his / her name nor any other identifying information is used.

Copies of the information sheet and the consent form have been provided to me.

Name of Participant (block letters): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Authorised Representative (block letters): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Investigator (block letters): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Student Supervisor (block letters): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**Centre for Excellence in Outdoor and Environmental Education**

**Participant Information Sheet**

**THE ROLE OF OUTDOOR EDUCATION IN THE SINGAPORE  
EDUCATION SYSTEM: A CASE STUDY.**

**Researcher responsible for the Project – Susanna Ho**

I am Susanna Ho, currently a postgraduate student of La Trobe University, Bendigo in Australia. I am undertaking this research project as part of the fulfillment towards a doctorate degree.

The research in which you are invited to participate is concerned with understanding the role that outdoor education plays in the Singapore education system. The intent of the study is to describe the scope of outdoor education in your school and to explore the role that outdoor education plays in the school.

Your participation is voluntary. As a contributor to the study, you will be asked to participate in a maximum of two interview sessions and to maintain a journal (which could be part of your preparation for lessons). Each interview session is anticipated to take approximately one hour. You will be asked about your role in the school's outdoor education programmes and some questions relating to what you think the role of outdoor education is. All interviews will be audio-taped, unless you request for the recorder to be switched off.

Journals will be analyzed for the thought processes that go into the preparation of lessons and what you think are important outcomes to be derived from the lessons. Journals may also prompt ideas to be followed in subsequent interviews. Journals will be collected and read between the two interview sessions. Photocopied extracts will be taken to allow for analysis and to enable punctual return of the journal. The information you provide will be strictly confidential. Any reporting or publications produced from this research will use false names if describing participants' responses. You are free to withdraw consent and to discontinue participation in the study at any time, without prejudice. The results from the study and your personal data will also be made available to you on request.

Any questions regarding this project can be directed to myself:

Susanna Ho – Centre for Excellence in Outdoor and Environmental Education (ph. 90188086) or to my supervisors

Prof Noel Gough – Centre for Excellence in Outdoor and Environmental Education (email: [n.gough@latrobe.edu.au](mailto:n.gough@latrobe.edu.au))

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**Centre for Excellence in Outdoor and Environmental Education****Consent Form**

I, \_\_\_\_\_ (the participant) have read and understood the participant information sheet and consent form, and any questions I have asked have been answered to my satisfaction.

I agree to participate in the project, realizing that I may withdraw at any time. I agree that research data provided by me or with my permission during the project may be included in a thesis, presented at conferences and/or published in journals on the condition that neither my name nor any other identifying information is used.

Copies of the information sheet and the consent form have been provided to me.

Name of participant (block letters): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

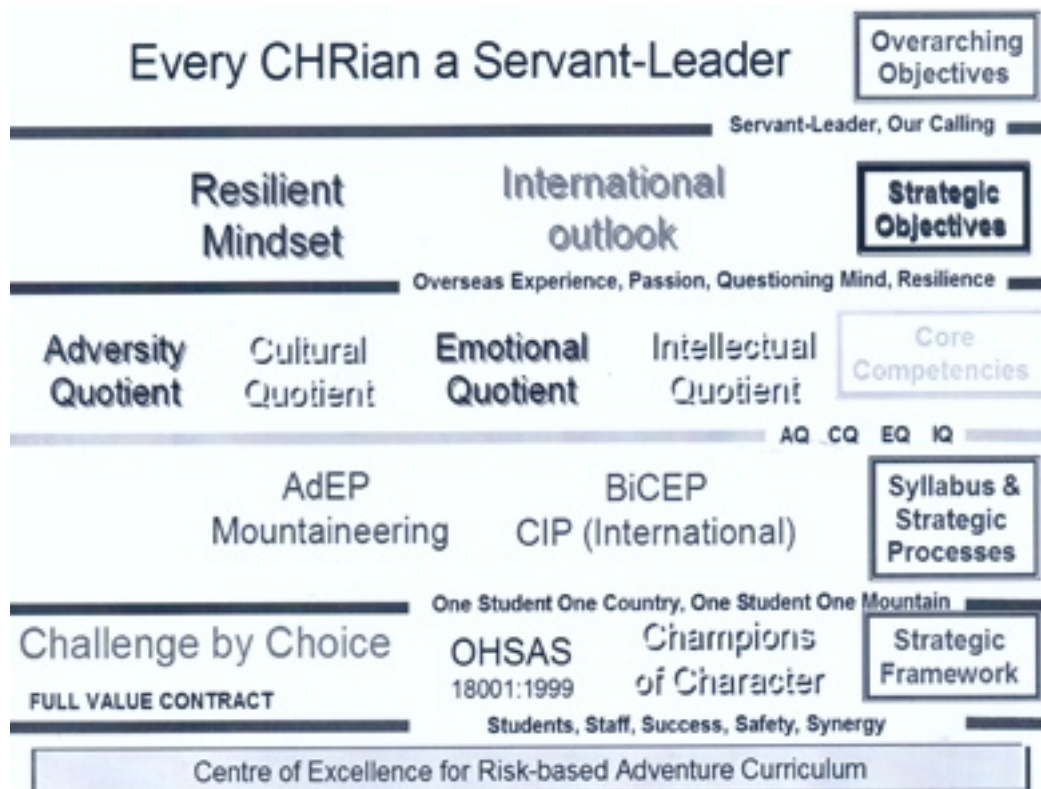
Name of Investigator (block letters): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Student Supervisor (block letters): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Appendix D: The RACE Framework.



**Appendix E: Secondary one camp schedule.**

**Sec 1 Camp 2008**

**Objective of the camp : To bond with the classmates, identify the right values and to appreciate the environment more. Learn some hard skills as well.**

Day	Time	Item	Activity	Equipment	Venue	No of pax	I/C	Remarks
1	0800 – 0900		NSW Competition		Classroom	40	Puah	Ms Sharifah to take a break
	0900 - 0930	Admin	Self intro/ expectation and rules / Group goals	Masking Tape and marker	Camp Room	40 pax	Puah	
	0930 – 1000		Tea Break		Canteen			Own Cost
	1000 – 1030	Ice Breaker	Buddy's up		Plaza and Camp Room	2 x 20	Puah/ Sharifah	
	1030 – 1100	Campfire Songs	Cheers/ songs		Camp Room	40	Puah	
	1100 – 1130	Ice Breaker	Dwarf and Wizard	Foam Tube	Parade Square	2 X 20	Puah / Sharifah	
	1130 - 1200	Trust Game	Pair Trust		Rock Wall and Plaza	2 x 20	Puah / Sharifah	What does it take to trust your friends?
	1200 - 1300		Circle Trust					
			Lunch					
	1300 – 1400	Blogging	Blogging					

	1400 – 1530	Camp Briefing/ Debrief / logistics / Shopping	Program and equipment list, program, peer, pre -camp evaluation	Questionnaire/s	Camp Room	40	Puah	Remind them to bring 2 pair of shoes. Discuss a class goal for each group. Use of reflection slip. Reflection booklets
	1530	Dismissed from school						
2	0830 – 0915		Transport to Camelot					
	0915 – 1230	Kayaking	KOP		Changi Coast MOE Adventure Centre	40	Camelot	Catered lunch for teachers and instructors at the Camelot canteen. Cheng Long and Li Min to reek the check point and put ice cream stick. Puah and FT to take care of the group.
	1230 – 1300		Wash up					Rinse and change to dry clothes, no showering.
	1300 – 1500	Outdoor Cooking / Lunch	Camelot		MOE Adventure Centre	40	Cheng Long /Puah	Cheng Long and Li Min to set up check points during the washing up.
	1500 – 1730	Navigation	Navigation at East Coast Park Connector	Worksheet and chart	East Coast Park	40	Cheng Long/ Puah	Basic Orienteering Skill, Bearing, puzzle question
	1730 – 1830		Transport back to school					Hang up wet clothings and shoes.



1830 – 1920	Dinner	Dinner		Canteen	40	Puah / Cheng Long	
1930 – 2000	Reflection	Reflection using the sticky wall					
2000 – 2130	Communication Game, knots	Tying of knots	Prussic cords	Parade Square	3 groups of 10	Puah/ Cheng Long /FT/ Li Min	Knots : Reef knot, single fig of 8, double fig of 8 on the bight, clove hitch. Bandage : hand sling Facilitation : Different people, different personality and perception
2130 – 2230	Tent – pitching Supper	Teach tent pitching Pitch tent and supper	Tent	Parade Square Canteen	40	Cheng Long / Puah	How to keep and pitch tent 4 groups pitch tent, 4 groups supper and switch
2230 – 2300	ZZZ						
0600 – 0630	Strike tent	Strike tent and PT		Parade Square	40	Cheng Long	Keep the mat
0800 – 0830		Breakfast		Canteen			
0830 – 0900	Transport	Transport to Tree Top Walk					

3

0900 – 1215	Nature Appreciation	Tree Top Walk	Permit	Central Nature Reserve	3 groups 10	Puah/ Cheng Long / FT/ Li Min	Instruction to students : Pick up an natural item that represents you. You need to explain why it's like you.
1215 – 1300		Transport back to school					
1300 – 1400		Lunch and pre-activity briefing		Canteen	40		Wearing of harness
1400 – 1700	Challenge By Choice	HR activity			40	Puah	Li Min / CL : 1.5 hours of belaying each.
1700 – 1800		Dinner	Catered dinner	Canteen			
1800 – 1930		Rest and Relax					Prepare Campfire Item
1930 – 2100		Campfire		Parade Square	40	Puah / Cheng Long	
2100 – 2200		Washup and Supper					
2200 – 2230		Photo – viewing		Camp Room	40	Puah	Retrospect and appreciation
2230 – 2245		Reflection		Camp Room			Use of reflection slips
2300		ZZZ		Hall	40	Puah / Cheng Long	
4	0600 – 0645	PT		Track			



0800 – 0830		Breakfast		Canteen			
0830 – 0930	Morning Surprise	Balloon Frantic	Balloons	Camp Room	40	Puah	1 group of 10 at a time. 10 min x 4. What's the priority in their lives.
0930 – 1000	Current Affairs and Environmental Issues	News gallery	Foolscap and pen	Camp Room	40		CME assessment, marking criteria and brief on homework.
1000 – 1100	Camp Evaluation	Evaluation on the personal and class goals, affirmation	Slips	Camp Room	40	Puah / Cheng Long	What are the things that destroy class team : Reverse brainstorm. Peer and own assessment, camp evaluation
1100 – 1130	Home sweet home	Return of valuable and t-shirt		Camp Room	40	Puah / Cheng Long	

**Appendix F: Schedule of CIP in Karimun island.***Programme in Karimun (Wednesday – Friday) sec- 3-1.***PROGRAMME****DAY 1 Wednesday**

Sin - Time	Indo Time	Activity
0615		Report at CHR
0700 hrs	0600 hrs	Meet at Harbour Front (WTC)
0720 hrs	0620 hrs	Check-in Ferry
0750 hrs	0650 hrs	ETD WTC for Tg Balai
0930 hrs	0830 hrs	ETA Tg Balai Port - CIQ
1000 hrs	0900 hrs	Breakfast
1030 hrs	0930 hrs	CIP Programme (English Games- Std. 1 / English Lessons Std 2)
1300 hrs	1200 hrs	Lunch & Check Into Hotel
1500 hrs	1400 hrs	Geography Field Trip – River Study
1700 hrs	1600 hrs	Geography Fieldtrip- Fishing Village
1800 hrs	1700 hrs	Check-in Hotel Padi Mas
1830 hrs	1730 hrs	Wash-up Free N Easy
1900 hrs	1800 hrs	Dinner
2100 hrs	2000 hrs	Journal Input & Reflection/ Back to Hotel
2300 hrs	2200 hrs	Lights out

**PROGRAMME**  
**DAY 2 Thursday**

Sin - Time	Indo Time	Activity
0645 hrs	0545 hrs	Breakfast
0745 hrs	0645 hrs	Depart for Trek to Mt Jantan
0800 hrs	0700 hrs	Warm-up & Equipment Check
0830 hrs	0730 hrs	Start of Trek to Mt Jantan 475 (above sea level)
1430 hrs	1330 hrs	Lunch
1600 hrs	1500 hrs	Wash-up @ Hotel
1730 hrs	1630 hrs	Journal Input & Reflection
1900 hrs	1800 hrs	Dinner
2100 hrs	2000 hrs	Back to Hotel
2300 hrs	2200 hrs	Lights out

**PROGRAMME**  
**DAY 3 Friday**

Sin - Time	Indo Time	Activity
0645 hrs	0545 hrs	Breakfast
0800 hrs	0700 hrs	Assemble at Hotel Lobby
0815 hrs	0715 hrs	Arrival at School & CIP English Lessons ( Std 1 ) / English Games (Std 2)
1015 hrs	0915 hrs	Farewell
1045 hrs	0945 hrs	Early Lunch
1200 hrs 1400 hrs	1100 hrs 1300	Departure from Tanjong Balai ETA Harbour Front (WTC)

**Appendix G: Camp Echo schedule.**

Day 1	
1230 - 1500	Journey to Jetty.....
1500 - 1600	Blindfold (Kidnapped !!) to <i>Riverbank</i>
1600 - 1900	Water Obst.Course/Bed/3 blind mice
1900 - 2000	wash up and dinner
2000 - 2300	Firefly / night walk / games
2300 - 2359	Wash up and Reflection
2359 - 0200	Rest well....
0200 - 0400	Firedrill

Day 2	
0630 - 0700	wake up
0700 - 0730	Breakfast
0730 - 0900	departure to Mt.Doom
0900 - 1400	reach mountain and lunch
1400 - 1700	sandcastle at beach
1700 - 1830	head back to camp
1830 - 1930	Wash up / Reflection
1930 - 2030	BBQ dinner
2030 - 2200	Camp fire / singing/Auction/Mascot
2200 - 2300	Wash up
2300 - 0200	Rest ...
0200 - 0400	Raft building

Day 3	
0700 - 0800	Wash up
0800 - 0900	Breakfast
0900 - 1000	Jungle Trail / Traps
1000 - 1130	Reflection / pack up/ / Area cleaning
1130 - 1230	Journey to Jusco
1230 - 1430	R & R
1430 - 1600	Journey home