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# The nature and scope of outdoor education in New Zealand schools

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## Abstract

This paper reports on a study conducted in 2002 and 2003 investigating the nature and scope of outdoor education in New Zealand primary and secondary schools. The aim of the study was to gather data on teachers' practices in outdoor education in New Zealand, the beliefs and values that shape those practices, some of the barriers teachers faced teaching in the outdoors and resources that they felt would support them in their teaching. Findings suggest that teachers use the outdoors to support teaching across the whole curriculum but the types of activities undertaken and the reasons for using the outdoors to enhance learning varied across the primary and secondary sectors. The learning outcomes that respondents considered most important were primarily around personal and social development. The study highlights that there is considerable ambiguity in terminology and understanding around teaching and learning in the outdoors that merits further investigation.

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## Introduction

Outdoor education has been part of New Zealand education for over 150 years (Lynch, 1998a). The role of outdoor education has shifted over time within the broader context of the changes in the New Zealand education system. Prior to the 1940s outdoor education was primarily recreational. From the 1940s the focus changed to a greater educational intent. Lynch (2000) pointed out that one of the educational shifts that has occurred since the 1970s is that outdoor education has become more instrumental, and the skills and values that are emphasised are associated with employability. It was not until 1999 that outdoor education gained an official place in the curriculum when it became one of the seven key learning areas of the Health and Physical Education (H & PE) curriculum (Ministry of Education, 1999).

Considering how long outdoor education has been part of the New Zealand education scene surprisingly little is known about what outdoor education is conducted in schools and the values and beliefs that underpin teachers' practice. This paper reports on a study investigating the nature and scope of outdoor education in New Zealand. To provide a context for this research, this paper starts with an outline of the curriculum statements that frame outdoor education. This is followed by a discussion on the semantic debate that is occurring in New Zealand around outdoor education. The remainder of the paper details the research process and the findings from the data collected.

## Outdoor education in the curriculum

The 1999 curriculum was the culmination of the most comprehensive curriculum reforms in New Zealand's history. These had been instigated over the previous 15 years (Stothart, 2002) and were part of the major economic and social reforms that had been reshaping New Zealand since the mid 1980s. These reforms were philosophically driven by New Right thinking that espoused a mix of minimal Government input and emphasised individualism and personal responsibility where economic imperatives assumed priority in all policy decisions (Cassidy, 1995). New Zealand has a national curriculum document, but the governance and administration of schools has devolved to individual schools and their communities. The Ministry of Education is the national policy and funding body that supports schools and communities to provide education.

Outdoor learning is included in the Science, Social Studies, Environmental Education and Technology curriculum statements but it has an explicit place as a key learning area in the H & PE curriculum. The new H & PE curriculum brought together the subjects of Health Education, Physical Education, and aspects of Home Economics (Culpan, 2000). The overarching aim of the H & PE curriculum reads: "through learning in health and physical education, students will develop the knowledge, skills, attitudes, and motivation to make informed decisions and to act in ways that contribute to their personal well-being, the well-being of other people, and that of society as a whole" (Ministry of Education, 1999, p. 11). The H &

PE curriculum was divided into seven key learning areas. These were mental health, sexuality education, food and nutrition, body care and physical safety, physical activity, sport studies and outdoor education (Ministry of Education, 1999). The specific aims of the outdoor education learning area were 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” (Ministry of Education, 1999, p. 46). To achieve the outdoor education aims of the H & PE curriculum students require a range of structured, sequenced, and developmentally appropriate learning opportunities in outdoor education. These include:

- o Adventure activities and outdoor pursuits that focus on physical skill development, fun, and enjoyment;
- o Adventure activities and outdoor pursuits that focus on the development of personal and interpersonal skills;
- o Learning about the traditions, values, and heritages of their own and other cultural groups, including those of the tangata whenua<sup>1</sup>;
- o Opportunities to learn about the environmental impact of outdoor recreation activities and to plan strategies to evaluate and manage personal and group safety, challenge, and risk;
- o Finding out how to access outdoor recreation opportunities within the community. (Ministry of Education, 1999, p. 19)

Layered into this curriculum document and into school practice is the history of outdoor education in New Zealand. The diversity and complexity of that history is reflected in the lack of semantic agreement around outdoor education in New Zealand (Boyes, 2000). One of the challenges has been to move away from a narrow, activities based focus to finding terminology that encompasses education that occurs outdoors. In 1980 the New Zealand Department of Education “adopted the term education outside the classroom (EOTC) to refocus the domain back to the wider teaching and learning premises of outdoor education in its broadest sense” (Boyes, 2000 p. 81, original emphasis). Stothart (1998) offered the following definition of EOTC in an endeavour to clarify the meanings of outdoor education in the New Zealand context:

The term refers to education (i.e., curriculum based learning) which takes place in outdoor settings. The outdoor environment is deliberately chosen to enhance learning. It may embrace outdoor pursuits but not exclusively; it may occur

in distant places but not necessarily . . . The range of activities is very broad and may include curriculum-related field studies, environmental education, visits to industrial sites, marae<sup>2</sup>, museums and other places of education interest along with adventure and challenge of camping, tramping and outdoor pursuits. (p. 23)

Both of the terms EOTC and outdoor education are used by teachers and various curriculum documents to describe the practice of taking students outdoors for educational purposes. We attempted to circumvent semantic confusion in this study by defining the scope of the study as the use of the natural environment for the purposes of teaching and learning in the outdoors. The questions in the questionnaire used the terms outdoor teaching or outdoor education.

### **The context of the survey**

Risk and safety narratives have occupied much of the discussion and practice around outdoor education in New Zealand (Stothart, 2005). This has been partly fuelled by the 1992 Health and Safety in the Workplace legislation, which has shifted the onus of employee safety much more squarely onto the employer (Ministry of Education, 2002). In the case of education, responsibility for staff and student safety ultimately sits with the school Board of Trustees. The emphasis on safety has also been fuelled by a number of deaths that have occurred during outdoor activities in New Zealand. This provided the impetus for the Ministry of Education (2002) to support the development of “Safety and EOTC: A good practice guide for New Zealand Schools.” This document sets out to “support school boards in meeting their obligations under the National Administration Guideline 5 to:

- (1) provide a safe physical and emotional environment for students;
- (2) comply in full with any legislation currently in force or that may be developed to ensure the safety of students and employees” (p. 5).

This document discusses concepts around safety management in EOTC, legal responsibilities and codes of best practice. It also provides a ‘tool kit’ for safety management which is comprised of a series of templates for the documents required for best practice in safety management in a school setting.

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<sup>1</sup> *Tangata whenua* is the Maori word for “local people, aborigine, native” (Ryan, 1994, p. 73).

<sup>2</sup> *Marae* is a Maori meeting area of whanau (extended family) or iwi (tribe), focal point of settlement, central areas of a village and its buildings and courtyards (Ryan, 1994, p. 36)

The introduction of Safety and EOTC was supported with a series of professional development workshops run throughout New Zealand during 2002 and 2003. All schools were required to send staff involved in the EOTC programmes. This presented an ideal opportunity to gather data on outdoor education practices in New Zealand schools.

## **Research method**

A questionnaire modelled from the questionnaire used by Lugg & Martin (2001) to investigate the nature and scope of outdoor education being offered in Victorian Secondary Schools was used to investigate the scope and practices of outdoor education in New Zealand. The questionnaire was modified to suit the New Zealand context and also to incorporate the outdoor education practices of primary schools. The research questions were based on the following key themes:

- Current outdoor education practices in New Zealand schools;
- Teachers' beliefs and values that underpinned these practices;
- Teachers' perceptions as to the learning outcomes possible in outdoor education;
- Teachers' perceptions of the barriers to providing quality outdoor education experiences;
- Staffing and resource issues related to the provision of outdoor education.

Both quantitative and qualitative questions were asked about the nature and scope of outdoor education in New Zealand schools. Because of the time frame, limited piloting of the survey was undertaken. This may well be related to feedback indicating that some respondents found some questions confusing.

The facilitators of the Safety and EOTC workshops were asked to distribute the questionnaire during the workshops. Some facilitators asked the participants to complete the questionnaire during the workshop while others asked participants to return them at the time of the second workshop or to forward them to us directly. We distributed 1500 surveys of which 210 were returned, hence a low response rate of 14%. This was disappointing especially given that those coming to the Safety and EOTC workshops would have had some interest in and commitment to outdoor education. This rate may be indicative of how busy and overburdened outdoor education teachers are, especially with the rise in accountability and administrative tasks. In addition, the workshops were characterised by a large number of tasks that needed all of the available time to complete.

The quantitative data was analysed using the computer based Statistical Package for Social Sciences (SPSS) that enables easy analysis of quantitative data. These data were collated through percentages or rank order depending on the nature of the question asked. The number of people responding in the affirmative to a particular question was totalled and compared with the overall number of replies. These figures were then converted to percentages and presented in graphs where the percentages are presented in order from high to low (left to right). With the rank order presentations, the likert scale figures were totalled across the participants and the average (mean) computed for each point on the scale. The means are then presented in order from high to low.

The qualitative data was grouped into categories or around similar themes. Some comparisons are made with the Victorian data from Lugg & Martin (2001) and with the South Australian data from Polley & Pickett (2003). While the educational contexts across Victoria, South Australia and New Zealand are different, there appear to be a number of commonalities in the importance of a range of learning outcomes across the three education systems. There also appear to be some similarities in the barriers that teachers experience in providing outdoor education.

## **Results**

Responses came from 36 secondary schools, 147 primary schools and eight area schools<sup>3</sup>. Of these 148 were state schools, 25 were integrated schools<sup>4</sup> and seven private schools. 173 of the respondents indicated their school was coeducational and 11 worked at a single sex school. The average decile level of the schools was 5.7 and the majority of respondents rated their schools at a decile level of four or higher<sup>5</sup>. The results are discussed in relation to the specific questions asked in the survey. Data from primary and secondary schools is discussed separately in regard to current practices. The data from primary and secondary schools is discussed together with relation to the other aspects of the survey unless a significant difference was found between the two.

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<sup>3</sup> Area schools are generally located in remote rural areas where there is a small population and the school caters for all year groups.

<sup>4</sup> Integrated schools are mostly church schools that work to the national curriculum and are funded through both the Government and the church.

<sup>5</sup> Each school in New Zealand is given a decile rating which is linked to the funding formula for schools. Census information and school ethnicity data are used to calculate the decile. Included in the calculations are household income of students, occupation and educational qualifications of parents, household crowding, levels of income support and ethnicity (Ministry of Education, 2004).

### Current practices in primary schools

The outdoors was used to support teaching across the whole curriculum. Not surprisingly, the outdoors was used most frequently in H & PE with 74% of the primary respondents indicating they used the outdoors to enhance their teaching. This was closely followed by science (69%), social studies (60%), and environmental education (54%). The outdoors was used less frequently to support teaching in the arts, technology and maths with languages the lowest on 29%.

H & PE was also the curriculum area where primary teachers spent the greatest proportion of their teaching time in the outdoors. Across the sample this came to an average of 37%, followed by environmental studies at 20% and science and social studies at 12% and 11% respectively. These figures should only be taken as indicative as there would be many points of similarity in subject matter, especially with the prevalence of thematic teaching at this level.

Respondents were asked to list examples of outdoor education experiences they offered across the curriculum. The activities were very diverse and included outdoor activities such as abseiling, tramping<sup>6</sup>, camping, rock climbing and sailing. Many different outdoor environments were utilised in teaching experiences. Some examples of these were botanical gardens, farms, sanctuaries, mountains, rocky shore and wetlands. Other venues that were mentioned were various cities around New Zealand, the Antarctica centre, observatories, art galleries, Marae and museums and Government House. The variety of outdoor learning experiences reflects the fact that curriculum enrichment was seen as the main focus in primary schools. This was followed by personal and social development and thirdly by outdoor pursuits.

Primary school teachers reported taking their students to an array of venues, but the majority of the teaching and learning in the outdoors occurred in the school grounds. This was closely followed by outdoor centres and then rural and urban areas and then National Parks (Figure 1). Other venues included beaches and the coast, community visits and Marae visits.

Even though outdoor centres were the second most frequently used location, only one third of outdoor education programmes had a residential component. Respondents also indicated that only 20% of outdoor programs occurred outside of school hours. This suggests that the majority of the learning experiences primary students have occur during the school day and are of shorter duration.

### Current practices in secondary schools

The questions canvassing outdoor education practices in secondary schools were split into two sections. The first section related to the activities respondents offered in their outdoor education programs, the regularity of the programs, the main locations they occurred and how much of the program occurred outside of school hours across the whole program. H & PE, and therefore, outdoor education is a compulsory part of the curriculum for all students until the end of year 10. In years 11, 12 and 13, or senior secondary<sup>7</sup>, H & PE becomes an elective subject. Students in senior secondary are assessed against national standards in the form of the National Certificate of Educational Achievement

<sup>6</sup> Tramping is known as bushwalking in Australia.

<sup>7</sup> New Zealand schools generally do not have separate schools or campuses for senior secondary students.

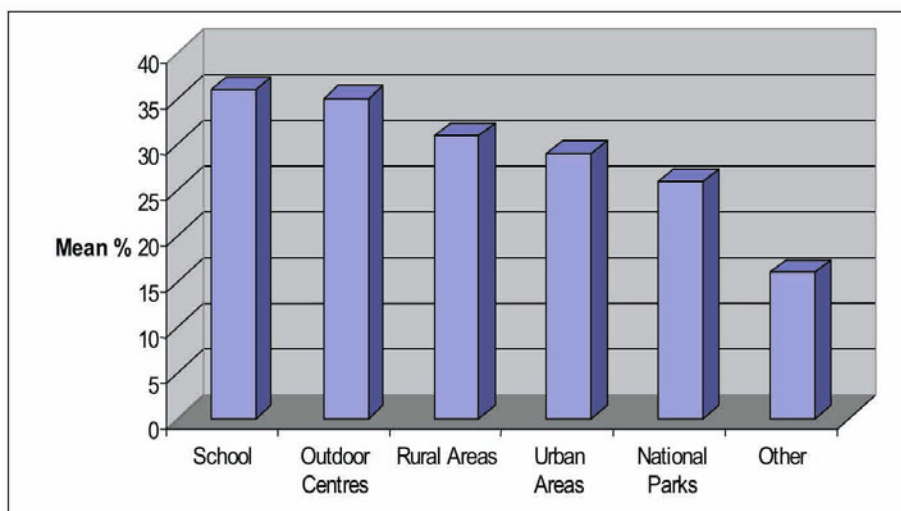


Figure 1: Locations where primary school outdoor education programmes occur.



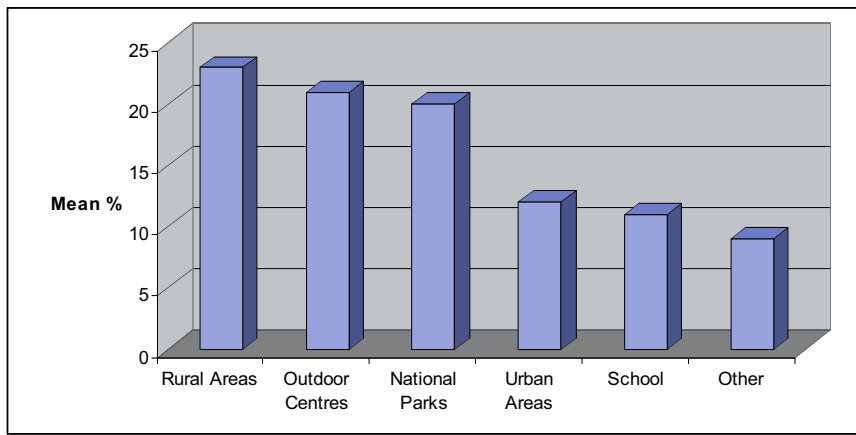


Figure 2: Locations where secondary school outdoor education programmes occur.

(NCEA) in each subject area they study. Schools can use New Qualification Authority (NZQA)<sup>8</sup> units which set learning outcomes for a range of outdoor related activities as part of their NCEA assessment process if they wish. The second section of the questionnaire was aimed at those who used the outdoors as a learning context for subjects offered at senior secondary level.

There were some key differences in the outdoor learning practices between secondary schools and primary schools. Curriculum enrichment was not as clearly identified as a programme focus as in the primary sector. Respondents indicated that on average 22% of their programmes had a curriculum enrichment focus. Social and personal development constituted 23% and 19% of the programme focus respectively. But 36% was classified as having 'other' focuses. The types of activities that respondents listed as other included work experience, museum visits, Duke of Edinburgh programs, retreats, sports exchanges and special needs programs.

As with the primary sector, secondary teachers listed an array of activities when asked for examples of how they used the natural environment for purposes of

teaching and learning in the outdoors. This included a wide range of outdoor activities. They mentioned non-pursuits based activities less frequently than those in the primary sector. The secondary school respondents also listed subject specific field trips, such as biology, economics, geography, maths, science, history, Te Reo<sup>9</sup> and English field trips.

Outdoor learning experiences primarily took place in rural areas, followed closely by outdoor centres and national parks (see Figure 2). Respondents indicated that 45% of the outdoor programmes they ran were residential and that 57% of secondary school programs occur outside of school hours. While

<sup>8</sup> NZQA have the overarching role in the provision of qualifications and monitoring the quality of qualifications at the secondary and tertiary level, except for Universities. The NZQA units available to schools are also used by Polytechnics (TAFEs) and other providers of outdoor recreation training. The NZQA units were not specifically designed for use in schools, rather they were designed to meet industry requirements in terms of the skills and knowledge required of employees.

<sup>9</sup> Maori language

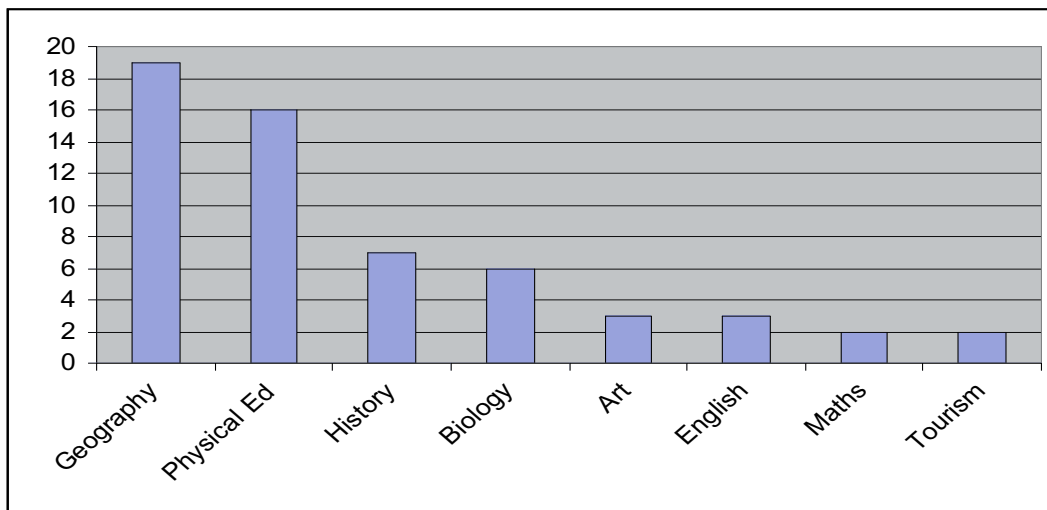


Figure 3: Curriculum areas where the outdoors were used in teaching at senior secondary schools.

a large proportion of outdoor learning occurred at places other than school, respondents said they most frequently took outdoor learning experiences of less than two hours duration, which suggests a lot of outdoor learning experiences occurred at school. We did not ask any questions about if or how school based outdoor learning related too, or supported, residential programs teachers ran.

The outdoors was used as a learning medium across the whole curriculum at the senior secondary level (Figure 3). It is interesting to note that the outdoors was used as a learning medium slightly more frequently in geography than in H & PE by the respondents. The examples of activities respondents provided were largely field trips associated with specific subject areas, e.g. for biology the outdoors was utilised for seashore studies, bush and mountain studies. Within the H & PE subject area the outdoors was primarily used to for pursuits based activities, such as mountain biking, tramping and kayaking.

Respondents utilised a wide range of NZQA units to support their teaching at senior secondary level. The majority of units that respondents listed were outdoor pursuits related and ranged across tramping, climbing, skiing and snowboarding, adventure based learning, risk management and first aid. The data gathered does not allow us to comment on how teachers used the NZQA units to support their teaching and the NCEA assessment process.

### **Learning outcomes**

The remaining results have been combined for primary and secondary respondents unless a significant difference was found between the two. Participants were asked to indicate how important they felt a range of 18 different learning outcomes were in outdoor education. The list of learning outcomes was based on the work of Lugg and Martin (2001) and Polly and Pickett (2003) with some additional items such as cultural/ethnic understanding and Tikanga Maori<sup>10</sup>, to address learning outcomes unique to the New Zealand curriculum. For each outcome respondents were asked to choose one option from: very important (4), important (3), of some importance (2), and not important (1). The learning outcomes that were considered most important were largely concerned with personal and social development. These included group co-operation, improved self esteem, consideration of others, safety knowledge, increased self-responsibility and social and communication

skills. Tikanga Maori, data gathering and analysis and spirituality were considered less important in terms of learning outcomes (see Table 1).

**Table 1: Outdoor education learning outcomes ranking.**

Learning Outcomes	Mean Ranking
Group co-operation	3.82
Improved self esteem	3.72
Consideration for others	3.71
Safety knowledge	3.71
Increased self responsibility	3.66
Social & communication skills	3.66
Problem solving	3.56
Leadership	3.52
Env. knowledge & appreciation	3.51
Survival skills	3.38
Recreation / leisure skills	3.31
Critical thinking	3.29
Environmental action	3.16
Physical fitness	3.15
Cultural/ethnic understandings	2.97
Tikanga Maori	2.55
Data gathering & analysis	2.54
Spirituality	2.51

Things such as recreation/leisure skills, environmental action and physical fitness were considered important but there was much more variability as to the significance placed on these across the sample compared to the other outcomes listed.

An analysis of variance (ANOVA) analysis was conducted to see if there were statistically significant differences between any two groups of the participants, for example males and females or primary and secondary teachers. An ANOVA determines whether a difference in scores between two such groups is by accident or can be attributed to the distinct nature of either group. The result is presented by an F figure where the larger F is a stronger result. The p figure is the strongest indicator, where .05 is needed for significance and anything under that (e.g., .01) is a stronger difference. There were no differences in how the learning outcomes were ranked between the female and male respondents.

Primary school respondents rated physical fitness somewhat higher than their secondary counter parts (1,(173), F=7.346, p < .007) whereas the secondary respondents rated problem solving somewhat higher (1,(173), F=4.045, p < .046). Consistent with Lugg and Martin's (2001) and Polly and Pickett's (2003) findings, recreation skills and physical fitness did not rate as highly as personal development and environmental knowledge outcomes. This is consistent with the

<sup>10</sup> *Tikanga Maori are the customs and traditions that have been passed down through the passages of time (<http://www.maori.org.nz/tikanga/>, accessed 27 Sep. 2005).*

aims of outdoor education in the H & PE curriculum document which opens with the statement that outdoor education provides opportunities for students to develop personal and social skills (Ministry of Education, 1999). Learning outcomes linked to personal and social development are also consistent with dominant themes that permeate much of the outdoor education literature. Lynch (2000) states that the underlying purpose of outdoor education in New Zealand has always had a social and moral development component, although what that has been has varied over time to reflect broader social changes. In addition, the broader aims of syllabi like science and social studies would not focus on recreation skills or physical fitness.

The focus on personal and group development may also be an indication that teachers are taking up the broad concepts of health and well-being that underpin the H & PE curriculum. The four underlying concepts of the curriculum are: well-being, hauora<sup>11</sup>; health promotion; the socio-ecological perspective; attitudes and values that promote hauora. These work together to enhance the well-being of self, other people and society (Ministry of Education, 1999). The contention that teachers are taking a broad view of health and well-being does need to be treated with caution however, as we did not ask teachers to identify their specialist teaching areas. Those who work in areas other than H & PE may have little understanding of the underlying concepts of this part of the curriculum.

One area that requires further investigation in relation to learning outcomes is how teachers see outdoor education contributing to curriculum enrichment, particularly in terms of how curriculum enrichment and personal development are linked. Curriculum enrichment may provide a productive segue into understanding teachers' practices around

how they use the outdoors as a learning environment. This would be particularly relevant in the primary sector where respondents reported that over half of the learning experiences they conducted in the outdoors were focused on curriculum enrichment. Polly and Pickett (2003) also found that outdoor education is linked to other curriculum and learning areas in South Australia.

Another area that invites further investigation is around the opportunities for learning about traditions, values, and heritages of one's own and other cultural groups, including Tangata whenua. Cultural/ethnic understandings and Tikanga Maori were ranked as not very important learning outcomes in outdoor education. Yet visiting Marae, Maori trips and Te Reo camps were identified as outdoor learning opportunities provided to students at both primary and secondary schools. Perhaps these activities were not identified with the definition of outdoor education provided in the preamble, where the focus was on learning through the natural environment.

**Beliefs and values**

The questionnaire contained 15 statements around values and beliefs. This list of statements was generated by the researchers and was based conceptually on our own personal experiences as outdoor teachers, and readings, research findings and theoretical positions from the literature. In addition, anecdotal evidence was gathered from a number of

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<sup>11</sup> *Hauora is a Maori philosophy of health. It comprises of taha tinana, which is physical well-being; taha hinengaro, which is mental and emotional well-being; taha whanau, which is social well-being; and taha wairau, which is spiritual well-being (Ministry of Education, 1999).*

**Table 2: Beliefs and values of outdoor education practice**

Beliefs and values underpinning outdoor education practice	Mean ranking
OE can enrich all curriculum areas	4.64
OE is a fun teaching & learning medium	4.53
Outdoor teaching often requires specialised knowledge & skills	4.23
Outdoor activities should be taught by progressions	4.20
The outdoors is ideal for promoting aesthetic appreciation	4.15
There is a place for one-off adventure experiences	4.09
Red tape is making teaching in the outdoors more difficult	4.04
OE is the best medium for teaching environmental education	4.02
I feel sufficiently qualified and experienced to teach outdoor education	3.94
We have become preoccupied with safety	3.90
OE is an ideal medium for students to become socially critical	3.88
OE is best thought of as a teaching methodology	3.68
Assessing student outcomes is a neglected area in OE	3.43
OE is based substantially in the Health & PE curriculum	3.29
OE is mainly focused on outdoor pursuits	3.19

teachers about why they took their students into the outdoors and some of the issues they had identified in relation to taking students outside. It was not the result of a formal research process, rather the list was viewed as a means of gaining some insight by the researchers as to how broadly applicable the anecdotal evidence was. Respondents were asked to indicate their level of agreement on a five point scale from strongly agree through to strongly disagree (see Table 2).

The statement that respondents most consistently agreed strongly with is that 'outdoor education can enrich all curriculum areas.' As a corollary to this, respondents agreed least strongly with the statements that 'outdoor education is based substantially in the H & PE curriculum' and that 'outdoor education is mainly focused on outdoor pursuits.' Yet at the same time respondents were less inclined to agree with the statement that outdoor education is best thought of as a teaching methodology. More detailed investigation of teachers' beliefs and values is needed to try and tease apart this apparent contradiction.

Other statements that respondents agreed with strongly were that outdoor education is a fun teaching and learning medium, specialised knowledge and skills are often required and that outdoor activities should be taught by progressions. There was a high level of agreement that the outdoors is ideal for promoting aesthetic appreciation, that there is a place for one-off adventure experiences and that it is the best medium for environmental education.

Secondary school respondents agreed more strongly than primary respondents with the statements that outdoor education teaching required specialised skills and knowledge (1(172),  $F = 5.528$ ,  $p < .02$ ), that there is a place for one-off adventures (1(174),  $F = 8.95$ ,  $p < .0003$ ) and that they feel sufficiently skilled and qualified (1(173),  $F = 10.706$ ,  $p < .001$ ). This may indicate that outdoor education programmes at secondary schools have a stronger pursuits focus than outdoor learning experiences at primary schools. Primary school respondents tended to be more likely to agree that outdoor education is substantially in the H & PE curriculum than their secondary counterparts (1(179),  $F = 4.242$ ,  $p < .041$ ). This requires further investigation as primary respondents also indicated that they used the outdoors for curriculum enrichment to a much greater degree than secondary schools. This may be a reflection of the primary teacher's responsibility for all curriculum areas and the greater use of cross-curricular thematic methodologies.

#### **Barriers to teaching outdoor education programs**

The questionnaire identified 18 potential barriers to teaching outdoor education programs. This barriers listed were based on Lugg and Martin's (2001) and Polly and Pickett's (2003) studies. The researchers

added the item of school rules as anecdotal evidence suggested that in some schools the rules were a barrier to taking students outside during class time. The respondents were asked to rank each item on a four-point scale indicating to what degree each item was relevant to their teaching in the outdoors. The scale ran from 'not at all relevant' to 'regularly relevant.'

The cost of the program was seen as the greatest barrier to teaching in the outdoors (see Table 3). Not surprising this is similar to what both Lugg and Martin (2001) and Polly and Pickett (2003) found in Victoria and South Australia. The crowded curriculum was seen as a greater barrier in New Zealand schools than it was in the Australian schools surveyed. This difference may in part be due to the fact that the majority of respondents in this study were from the primary sector whereas both Australian studies only surveyed secondary schools.

Demands on personal time, emphasis on safety and the paper work involved with organising outdoor education programmes were seen as the next greatest barriers. Finding appropriate staff was not ranked as high as it was by either the Victorian study (Lugg & Martin, 2001), where it was seen as the biggest barrier to conducting outdoor education or the South Australian study (Polly & Pickett, 2003), where it was ranked as the third biggest barrier. The unavailability of school-based administration staff and staffing relief, to support teachers while organising and running programs, were also seen as barriers to the delivery of outdoor education.

**Table 3: Barriers to teaching outdoor education programmes**

Barriers to teaching outdoor ed.	Mean ranking
Costs of programme	2.89
Crowded curriculum	2.81
Demands on staff personal time	2.72
Emphasis on safety	2.48
Paper work	2.45
Finding appropriate staff	2.43
Risks involved in practice	2.37
Class size	2.23
Expense of updating qualifications	2.15
Lack of resources	2.01
Staff – student ratios	2.01
School perceptions of OE	1.71
Inflexible school timetables	1.71
Lack of suitable venues	1.55
Students absences	1.52
Staff absences	1.49
School rules	1.43
Lack of student interest	1.34



The respondents thought that school perceptions of outdoor education were somewhat of a barrier. This did not rank as highly as it did in the Victorian study but did rank higher than in the South Australian study. This was followed by a perceived lack of suitable venues for teaching in the outdoors. School rules ranked very low in terms of being a barrier to teaching in the outdoors. Other issues such as an inflexible timetable and staff and student absences were identified as more significant barriers by the respondents. A lack of student interest was seen as the least barrier staff faced in running an outdoor education program. This might suggest that students generally see outdoor education as a worthwhile part of their school experience. Little is currently known about students' perceptions of, and experiences of, school based outdoor education programs and this is an area where further study is needed.

### **Resources required to support teaching in the outdoors**

Respondents were asked to identify resources that would help them to deliver their programs. They were asked to give examples in the following categories: activity resources, video resources, program outlines and guides, theory and research resources, human resources and any others they could identify.

Human resources were cited the most frequently, with the main need being skilled and affordable people to support outdoor activities. As already mentioned, teaching and administration support was also identified as a need. Activity based resources, including video and CD ROM resources followed closely behind human resources. Respondents wanted more activity resources for both outdoor activities and for curriculum specific activities. A need was seen for 'child friendly stuff' and also for activities with a New Zealand focus. The examples given for the video and CD ROM resources tended to be more pursuits and activity specific than the general resources. In both lists safety resources were highlighted and these featured significantly under the category of program outlines and guides. Respondents also identified a need for resources to help them integrate outdoor education across the curriculum and examples of best practice for lesson plans, unit guides and school camps.

Another area where teachers wanted support was in locating appropriate venues, and matching venues with the programs they planned to run. With the demise of the Department of Education in 1989 and the passing of camp venues to community based trusts many camp venues have deteriorated over time to the point of being unusable. In addition, the demise of the school advisory service has meant a vacuum in the support network for teachers in general and outdoor education teachers in particular (Stothart, 2005).

Of the resource categories given in this survey, theory and research were not seen as important to the participants' needs as the other categories. This may be because the other categories address immediate and daily needs of teachers delivering outdoor education programs. This signals a significant challenge to outdoor education researchers in making the outcomes of research accessible and relevant to practitioners in the field. If outdoor education, in its many and varied forms, is to stay a relevant and vibrant part of young peoples' educational experience then researchers do need to continue to find ways of understanding what is going on and of critiquing and questioning outdoor education practices and communicate that work to practitioners in the field (Allison & Pomeroy, 2000).

### **Staff qualifications and experience**

As noted earlier, respondents tended to agree with the statement that they felt sufficiently qualified and experienced to teach outdoor education. The teachers that responded to the survey were highly experienced with an average of 18 years experience taking students into the outdoors. Men tended to have more years of experience taking groups into the outdoors than women ( $F = 9.73, p < .002$ ) but there were no differences in the number of days in a year women and men would spend with groups in the outdoors. Sixty respondents said they spent between one and five days with groups in the outdoors and another 62 respondents said they spent between six and 10 days in the outdoors. Thirty five respondents said they spent more than 15 days a year with groups in the outdoors.

Those in the secondary sector agreed more strongly with the statement that they felt sufficiently qualified and experienced to teach outdoor education than those from the primary sector. Male respondents also rated themselves more highly on experience level than female respondents did. This latter finding is consistent with other studies (Carter, 2000; Loeffler, 1997) that show female teachers and/or outdoor instructors rate themselves lower on experience scales than male teachers/instructors.

Teachers taking young people into the outdoors came through a range of different training paths. A dedicated outdoor education degree program has only recently been established at Christchurch Polytechnic with the first cohort graduating in 2005. A number of other degree programs, particularly physical education related degrees offer outdoor education streams. At this point it appears that little has changed in outdoor education in New Zealand over the last 150 years in that programs seem to still largely be provided by enthusiastic teachers (Lynch, 1998b). Lugg and Martin (2001) made the same observation about the situation in Victoria.

A number of respondents identified their physical education degrees or outdoor education programs at teachers' colleges as relevant pre-service teacher training. Other relevant training identified was in particular curriculum areas such as maths, geography and creative writing and a wide range of activity based training such as in first aid, kayaking and bushcraft.

The professional development courses that respondents had attended in the last three years were primarily focused on specific skill development such as abseiling, first aid, kayaking and a range of bushcraft and alpine courses. The professional development opportunities that participants wanted to attend were also primarily associated with a range of outdoor activities. Other things that were mentioned were around camp planning, integrating camps into the curriculum, environmental education and cooking ideas.

## **Conclusions**

The intent of this survey was to provide baseline data as to the nature and scope of outdoor education in New Zealand schools. Given the low response rate we remain cautious about saying anything definitive about the state of play of outdoor education in New Zealand. One of the things to emerge from this survey is the multiple ways in which terms such as outdoor education and EOTC are understood and used by teachers. This may be a reflection of the diversity of training pathways teachers follow and also the diversity of experiences that learning in the outdoors can offer students.

The learning outcomes that respondents felt were important in outdoor education fitted well with the skill development, fun, enjoyment and personal and interpersonal skill development objectives in the H & PE curriculum document. They did not see the outcomes of cultural and ethnic understanding or environmental understanding to be as important as the skill and personal development goals. This is consistent with Lugg and Martin's (2001) and Polley and Pickett's (2003) findings, in that, personal and social outcomes were seen as the most important outcomes of outdoor education. The low ranking of cultural and ethnic and environmental learning outcomes may be a reflection of teachers' limited training and confidence in relation to teaching in these areas. To examine if and how teachers accommodate and respond to their local contexts in teaching in the outdoors will require working closely with a number of teachers to understand their outdoor education practices.

From the data we gathered it was apparent that there was considerable ambiguity in terminology and understanding around teaching and learning in the

outdoors. One place this ambiguity occurred was in the way respondents used the outdoors as a means of curriculum enrichment across the whole curriculum but did not necessarily agree with the notion that outdoor education was best seen as a teaching methodology. In the primary sector, curriculum enrichment was seen as the dominant focus of outdoor learning programmes, but at the same time primary respondents' located outdoor education more firmly in the H & PE curriculum and rated physical fitness higher as a learning outcome than teachers in secondary schools did. At the secondary level, geography teachers indicated they used the outdoors as a learning medium slightly more frequently than physical education teachers at the senior school level. This may just be a quirk of this study, particularly given the small number of secondary school respondents. However, it does raise questions about how teachers perceive the outdoors and how clearly they are able to articulate the role the outdoors has in student learning. It is beyond the scope of this study to speculate why these slippages might be occurring but they provide the foundation for further research into understanding how and why teachers use the outdoors in their teaching.

The diversity of outdoor experiences that students are being offered can be seen as indicative of schools and teachers recognising that the outdoors offers positive learning opportunities across the whole curriculum. Respondents had a range of training pathways to gain skills to take students in the outdoors and this can only add to the diversity of learning opportunities available to students. The range of training pathways teachers utilise may be indicative of Lynch's (1998b) claim that teachers who are involved in outdoor education tend to be enthusiastic outdoor people themselves who seek to find ways to take their students outdoors for learning experiences. It signals the need for a wide range of professional development opportunities and accessible resources for the many teachers who may not have any specific training in outdoor education.

As is the case in both Victoria and South Australia, outdoor education is predominantly taught by enthusiastic teachers many of whom appear to have developed their outdoor skills separate to their teacher training. They are also prepared to work outside of normal school hours to ensure their students have learning experiences in the outdoors. Demands on personal time was identified as the third most significant barrier to teaching outdoor education programmes and this issue needs to be addressed if outdoor education is to continue to have a viable place in the school curriculum.

The data from this survey has been forwarded to the New Zealand Ministry of Education and it is anticipated that this information will provide them

with a platform from which to improve the support and services provided to teachers involved in outdoor education. This study has highlighted a number of areas for further research particularly in relation to more detail and fine-grained analysis of what it is like to take students into the outdoors. Ultimately data from studies such as this will provide a springboard for developing outdoor learning, outdoor education and / or EOTC in New Zealand.

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