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# The sidelining of environmental care in outdoor education programmes: Why it happens, why it shouldn't and what we can do about it<sup>1</sup>

Chris North

University of Canterbury

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## Abstract

The article considers barriers and enablers to including environmental care education (ECE) in secondary outdoor education programmes. Despite the wide range of factors promoting ECE in Aotearoa / New Zealand various barriers such as; cultural attitudes, training of outdoor educators, and assessment practices are impeding ECE. The theory of planned behaviour is introduced as a way to conceptualise how this situation might be turned around. The article concludes with a consideration of how outdoor education teachers can be more effective in educating for behavioural change.

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**Key words:** leave no trace, environmental education, outdoor education.

## Introduction

One of my students forgets her boots, another leaves lunch for his group on the kitchen table at home, and then one of the vans gets lost on the way. It isn't until midnight that we get into our tents at our campsite. Other events take their toll on our timetable: blisters and a sprained ankle slow our travel speed. But making the most of the situation, we concentrate on navigation and bush skills over the next few days. In the evenings we have a "bush" party, and at the end of the trip, tired, happy students and I get into the van and drive home. But nagging me, at the back of my mind, is the thought of the aspects of environmental education that we didn't get around to.

I feel disappointed by my lack of commitment to environmental education.

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1 For definitions of these terms see page 47.

It is an aspect of outdoor education that I value. Unexpected situations can arise frequently during outdoor education trips. But if an ability to accommodate changing plans is part of outdoor education, why did environmental education get voted first off the outdoor education island? At first glance, the reason appears to relate to priorities. I have taught outdoor education at secondary and tertiary education levels, and for private organisations. I feel that my breadth of experience equips me well to provide holistic outdoor education. However, my priorities when outdoors with my students are influenced by what I notice. If I do not teach them technical skills, such as those associated with navigation, I will end up with students who are out of their depth and are at risk in terms of safety issues. If I neglect group culture, I may have conflict in the group. Either way, the outcomes are obvious and difficult to ignore. But if I neglect environmental education at the level of environmental care, the impacts of what we have done remain largely unseen by us as we move to our next campsite and we do not need to live with the consequences of our actions. Despite my belief in environmental education, I still didn't implement environmental care education (ECE). Yet the lack of ECE implementation in my programme is more complex than simple priorities.

In New Zealand, outdoor education teachers generally do not consider the outcomes of environmental understanding to be as important as the development of outdoor physical skills and the personal growth that comes from gaining these skills (Zink & Boyes, 2006). While Zink and Boyes' research suffered from a low response rate, it nonetheless provides indicative data. Also, as Martin (2008) points out, the extent to which teachers of outdoor education understand concepts such as ecological literacy -the ability to understand natural systems and how we interact with them (Orr, 2004) - is rarely optimal. Such an understanding is important because it determines what these teachers actually teach and emphasise during their outdoor education programmes.

In this article, I consider one aspect of environmental education that teachers of outdoor education can readily bring into their outdoor programmes for students. This aspect is environmental care, the set of practices and ethics that enable people to minimise the impact of their presence when outdoors. Environmental education focuses on developing the knowledge, awareness, attitudes, values and skills to maintain and improve the quality of the environment (Ministry of Education, 1999). As such, ECE may be seen as an aspect of environmental education (EE). Furthermore, ECE can be used to introduce environmental and wider sustainability issues. While ECE is focused on recreational impacts in outdoor settings, the principles of ECE offer tangible demonstrations of how our individual and collective actions impact the environment. ECE signals that some measure of EE is being brought into outdoor education programmes. In exploring this

matter, I consider how and why ECE tends to be sidelined in our schools and teacher education institutions despite curricula provision for ECE. I then look at some ways that outdoor educators can remedy the sidelining of ECE. I also refer to models of human behaviour in an effort to indicate the factors that influence humans to act sustainably or otherwise in relation to the outdoors environment, and to show how outdoor educators can help embed the values, principles and practices underlying ECE-related activities.

### The Sidelining of ECE

I am well aware that every time my outdoor education colleagues and I neglect to teach our students environmental care, we may be contributing to the production of a group of highly motivated and active outdoor enthusiasts who can explore the outdoors with relative safety and skill, but who have no idea of the potentially adverse impacts of their presence there and how to mitigate them. This level of ecological illiteracy can leave a legacy of unnecessary damage to the environment and generations of recreationists inadvertently damaging the places they love (Hendee & Dawson, 2002). As Orr (2004, p. 5) states, "The truth is ... education can simply equip people to be more efficient vandals of the Earth." Although Orr directed his comment at university graduates entering the workforce, the same could be said of outdoor educators who fail to teach the basics of ECE to their students.

While some outdoor educators are undoubtedly teaching ECE effectively, many other such educators are, I believe, avoiding or paying lip service to ECE, even though their personal ethics probably are strongly pro-care of the environment (Vagias, 2009). In her examination of outdoor education provision in New Zealand, (Cosgriff, 2008) stated that the almost exclusive focus on personal and social development in outdoor education has led to the sidelining of environmental education. But why this is so is puzzling, given the emphasis accorded to ECE in the national curriculum, other curriculum-related documents, and qualifications for outdoor instructors, and given the reported attitudes of outdoor educators themselves. The lack of New Zealand literature on the nature of outdoor education also provides little opportunity to doubt Cosgriff's statement.

The sidelining of ECE is not due to a lack of promotion in documentation. New Zealand's national curriculum contains a number of directives that both require and encourage outdoor educators to cover ECE in their programmes. The values section of the national curriculum document (Ministry of Education, 2007), for example, calls for a focus on environmental care (p. 20), while the Education Outside the Classroom guidelines (Ministry of Education, 2009) emphasise the need for those responsible for coordinating such programmes to take account of environmental care

when planning their teaching sessions. Throughout the education system, all outdoor education unit standards reference the environmental care code (Department of Conservation, n.d.), either in the special notes or the performance criteria (New Zealand Qualifications Authority, n.d.-b). Assessment measures relating to outdoor education also emphasise the need to assess students' knowledge and application of environmental care practices. And the syllabi for all assessments run by the New Zealand Outdoor Instructor Association (the major outdoor instructor assessment scheme in New Zealand) contain sections on environmental care.

New Zealand has a well-recognised environmental care code that is distributed extensively. Through consultation, the Department of Conservation and the Ministry for the Environment developed a thorough environmental care code, which is displayed prominently at huts and on track signs. The responses of the 36 secondary school teachers to a survey conducted by Zink and Boyes (2006) suggest that these educators are aware of the code and so recognise their obligation to consider care of the environment when conducting their programmes. The teachers who responded accorded a high degree of agreement to this statement: "Outdoor education is the best medium for environmental education." The answer as to why, despite all this emphasis, environmental care has only a minimal presence in New Zealand's education system seems to be the product of a number of factors. These are considered in the next section.

#### **Factors inhibiting the presence of ECE in outdoor education programmes**

According to Zink (2003), New Zealand society in general expects outdoor education to be pursuits and challenge-driven, and this thinking influences both teachers and students' attitudes. As Zink observes, New Zealanders are constantly exposed to adventure advertising and extreme outdoor sports images, as well as to the character-building advantages of such pursuits. Little mention, if any, is made of the effect such pursuits have on the natural environment. More particularly, as Hill (2008) points out, high-adrenaline, "take-away adventure" tends to be linked to a perception that the environment is a resource for consumption. This situation reinforces the focus of outdoor education teachers on skills and personal development rather than on environmental education (Zink and Boyes, 2006). Culturally, as Hill (2008) implies, we, in New Zealand, seem predisposed to under-emphasise EE let alone ECE: care for the environment is not positioned as an "adventure" pursuit and so is not conflated with challenge and excitement.

Teacher's baseline knowledge of the research underlying and practices associated with environmental care is important. Yet, in New Zealand there is a lack of understanding of, and basic competence in, effective environmental education (Law, 2003). As Grossman (1995) found, teachers

with weaker conceptual understanding of a subject area or discipline are likely to present information as arbitrary and rule-bound. Grossman also states that the extent of knowledge influences teachers' abilities to construct explanations and/or new activities for students. Thus, an outdoor education teacher with a weak knowledge of environmental care may present the environmental care code as a list of rules that leave little scope for individual judgement about the best course of action or for the development of an outdoor ethic.

If ECE only comprises a set of displayed rules, then it will be largely ineffective in changing people's behaviour in the outdoors (Manning, 2003). This is because, as Manning (2003) points out, simply presenting people with information (in this case the environmental care code) does not constitute effective teaching and learning. I know from my own experience how easy it is for teachers to point out to students that they can access and read the code on websites, brochures and signs, and then to take the matter no further, possibly in part because of their own lack of knowledge about environmental care.

The skills and knowledge that come from sound environmental care education fall outside the domains of traditional technical and interpersonal skills. Traditional technical skill acquisition is linked directly to consequences such as burnt porridge for breakfast or successfully paddling a rapid. Interpersonal skills are those used in relationships and group dynamics. Environmental care is neither necessary for our immediate comfort and safety nor reflected in group dynamics. Rather, it is a personal choice of behaviours that may affect an ecosystem over a longer period. These consequences are far more intangible and may be unobserved (Roggenbuck, 1992; Watson & Cronn, 1994). An environmental care skill set depends on the development of ethics in conjunction with skill teaching, which is something that educators generally are not comfortable with (Simmons, 1991).

Outdoor training can become highly focused on safety and skills. For example, the Mountain Safety Council advertises 12 training courses (New Zealand Mountain Safety Council, n.d.). While some courses are very specific and may not need to include environmental care (such as river safety), others, including bushcraft and alpine training courses, do not mention ECE in their course content. The one exception is the outdoor leader training course, which has environmental care as a focus. Although the Mountain Safety Council is a leading provider of outdoor training and encourages enjoyment of the outdoors, its core focus has not extended to environmental care. In the past, there has been lack of advocacy for ECE in New Zealand. Before the introduction of the Leave No Trace programme, introduced in 2009, no organisations in New Zealand targeted ECE, a

situation that I consider has greatly limited opportunities to develop courses specifically on environmental care.

Trends within teacher qualifications reinforce this lack of opportunity. While there are exceptions, initial teacher education is becoming increasingly lecture based and often provides little practical outdoor education training. Where outdoor training is provided, it focuses largely on the fundamentals of student safety rather than with the principles and practice of environmental care education.

The documents used to guide student assessments are much the same. My analysis of a sample of outdoor education unit standards in the canoeing-kayaking domain showed that references to environmental most commonly appeared among the last few performance criteria. While environmental care is referenced in every outdoor education unit standard, either in the special notes or in the performance criteria, the wording of assessment requirements can make a significant difference. From his examination of assessment in the New Zealand Outdoor Instructors Association syllabi, Moyle (2004, p. 84) concluded that “care needs to be taken to ensure that requirements are stated explicitly and allow for valid assessment of what needs to be assessed”.

Examination of the wording of unit standards relating to outdoor education programmes in schools reveals some inequities. The most common phrasing pertaining to ECE is:

2.5 Care for the environment is demonstrated based on the New Zealand Environmental Care Code.  
(New Zealand Qualifications Authority, n.d.-a)

The assessment requires reference to the environmental care code (no other performance criteria I reviewed does this) and there is no range statement. Contrast this with the wording of other, particularly “hard skills” performance criteria that are far more detailed:

2.1 Moving skills are smooth and efficient.  
Range: must include but is not limited to – rhythm, balance, rest.  
(New Zealand Qualifications Authority, n.d.-a)

Given the sparse wording of the environmental care performance criteria, I suggest student assessment is likely to be based on an absence of unnecessary impacts rather than on a demonstration of skills and knowledge. This “innocent until proven guilty” assessment means that environmental care may well be assessed in very few instances; students who do nothing wrong, but may still have very low knowledge of environmental care, can easily pass the EC components of unit standards.

The relegation of ECE performance criteria to the end of most unit standards, the sparse wording of performance criteria, and the limited focus on training and assessment of leaders reflect the priority (or lack of) given to ECE in outdoor education. I am not suggesting that matters relating to the environmental care code should dominate all other aspects of outdoor education. Rather, I am suggesting that we need to give ECE a specific, acknowledged focus in outdoor education so that it receives the attention it deserves. But does it really deserve a more prominent place in outdoor education programmes?

### **The importance of ECE**

Environmental care education is an opportunity for students to learn in, about and for the environment in a very real and direct way. Direct experience of nature in early life is significant in developing an affection for and connection with the outdoor environment (Ewert, Place, & Sibthorp, 2005). As Martin (2008) says, fostering this feeling is important because we will not fight for what we do not love. Tarrant and Green (1999) concur stating that, “outdoor-recreation participants are more likely to hold strong beliefs about environmental issues” (p. 27). There is ample opportunity for us to explore ethics relating to different wilderness and outdoor settings in contemporary New Zealand. Opportunity for students to enter these environments carefully facilitated by experienced outdoor educators is an important step in helping students recognise the value of the outdoors and to learn behaviours that allow them to protect it.

Extending the notion of care for the environment to outdoor urban settings is an area that has received little attention in outdoor education programmes and even less attention in the literature, and what is present regarding the effectiveness of any such move is contradictory. For example, while a study in New Zealand found considerable barriers to transference of environmental care from the outdoors to urban lifestyles (Cutler-Welsh, 2006), or indeed transference from outdoor education in general (Brown, 2010), others found grounds for optimism in urban attitude changes after an outdoor experiences (Hammitt, 1995; Tarrant & Green, 1999). This is an area that deserves greater recognition by those of us involved in environmental education, whether as teachers, researchers, or both in order to explore the complex nature of this area.

Unlike the contradictory research on transference, clear evidence exists that unskilled or unknowing behaviours can have a significant adverse effect on the environment. At the extreme end of human impacts in New Zealand are wildfires that burn entire forests or the introduction of foreign species, such as didymo (an invasive river algae), where the consequences are enduring, extensive and cost tens or hundreds of millions of dollars (Biosecurity New Zealand, n.d.). At the more common end are a wide range

of poor practices such as littering, inadequate human waste disposal, feeding wildlife, and inconsiderate behaviour that negatively affect the experience of others. The costs of these impacts are difficult to measure, as they can cause ecological damage and/or cultural and social insults. Which impacts are the worst is highly subjective.

Because of cost-cutting, the Department of Conservation no longer monitors the impact of humans on our natural environment. We consequently no longer have robust evidence to support a national trend of increasing adverse environmental impacts. However, before DOC ended its monitoring, Sutton (2002, p. 268) observed that “increased use of some popular destinations has already led to unacceptable impacts”. Human waste and rubbish continues to be left in large quantities in New Zealand’s “beauty spots”, which has led Basham (2008), amongst others, to advocate the need for a national protection policy. Impacts are also being noticed by the public and councils around the country. In the past few years, there has also been much media coverage of the impacts people are causing, especially “freedom campers” (Basham, 2009; Dangerfield, 2010; Edens, 2010; Gilbert, 2010; Johnson, 2004). In order to maintain the quality of outdoor experiences, various advocates have called for legislation that would restrict freedom of movement and punish offenders (Basham, 2008; Kennedy, 2009).

While legislation has its place, it does allow us to nimbly shift the responsibility for these impacts on to government departments. According to Wallace (1990), the effectiveness of government authority (legal and punitive threats) in changing behaviour is far inferior to the authority of the resource (explaining the consequences of actions in terms of the impacts to the ecosystem). Enforcement is difficult or impossible at remote locations. In addition, regulations tend to antagonise people rather than to win their support (Marion & Reid, 2007; Sutton, 2002).

### **So, what can we do?**

Clearly, there are limitations to a top-down, legislative approach. Environmental care training programmes are needed to address the knowledge deficit in New Zealand. Effective ECE programmes throughout the schooling system and in teacher pre-service and in-service education would act as a complement to and a reinforcement of, the messages underlying the regulations and also (hopefully) reduce the requirement for further regulations. While posters, signs and brochures are useful as reminders of the need to exercise care for the environment, employing a greater variety of methods will be more effective in bringing about deeper learning and behaviour change (Manning, 2003).

There is recognition in the teaching community of deficits in teacher knowledge and competency. Secondary teachers most frequent request was for environmental sustainability training, and primary teachers it was the third most common request (Haddock, 2007a, 2007b). While education for sustainability is far broader than ECE, ECE does address aspects of sustainability within the outdoor setting. These teachers’ responses indicate that ECE courses might fulfil a training gap. This signals the need for professional development opportunities and accessible resources for teachers. Short courses for outdoor leaders are available on a variety of topics, including risk management, outdoor first aid, adventure-based learning, search and rescue, and avalanche awareness. Timperley, Wilson, Barrar, and Fung (2007) consider training effective when it enhances the teachers’ knowledge of their curriculum and how to teach it. Many of the short courses for the outdoors provide not just information but also practical exercises in the form of scenarios and teaching resources. While a review of literature revealed no research into improved student learning as a result teachers attending outdoor training courses, according to the general findings of Timperley et. al., these types of courses can be effective in changing teacher practices and enhancing student learning.

The addition of short courses on environmental care could similarly lead to more environmentally skilled and knowledgeable educators and instructors. But while a leader’s knowledge and skills may result in an increased focus on environmental care, these attributes may not bring about changes in people’s behaviours when outdoors. Effective courses are those that facilitate enduring behaviour change (Marion & Reid, 2007)

The purpose of ECE is to provide people with the information, skills and practices they need in order to make educated decisions about how they can reduce their impacts on the outdoor environment. But the steps between gaining information and changing behaviour are not simple. An example of some of the difficulties faced can be seen in the Department of Conservation’s initiative to stop people despoiling the alpine areas of New Zealand with human waste. This initiative originally arose because of Ngai Tahu’s concerns over contravention of the tapu (sacred) accorded to Aoraki/Mt Cook and the waters arising from it. To help address this concern, the department developed a device called the poo pot, which climbers can carry when on summit bids or traversing areas distant from toilet facilities. Although the department made the pots readily available and provided information about them through the Aoraki visitor centre, website, and signs, few climbers used the pots (Garrard, 2008). This outcome indicates that the methods used were not very effective as a behaviour-changing tool. In order to minimise impacts, educators need to educate for behaviour change.

## Changing behaviours

If providing information about what to do resulted in behaviour change, marketing would not be a career path. Increased knowledge and awareness do not automatically lead to behaviour change (Jucker, 2002). Recourse to theoretical models of behaviour can be useful in helping us understand what influences behaviour. Simple linear models show knowledge leading to awareness/attitudes and then to behaviour. However, these models do not reflect the complexity of educating for behaviour change. Further information needs to be added to this linear model to identify the most influential factors in changing behaviour.

Human behaviour is, of course, complex, and the factors that influence behaviour are diverse. Another model, the theory of planned behaviour, originally conceived by Ajzen (1991), has been tested repeatedly and shown to be a good predictor of behaviour (Manfredo, 2008). Under this model (see Figure 1), beliefs are grouped into; attitude towards the behaviour, subjective norms, and perceived behavioural control, all of which influence behavioural intention. It is worth looking at each of these in turn and applying them to the case of human waste removal in Aoraki/Mt Cook National Park.

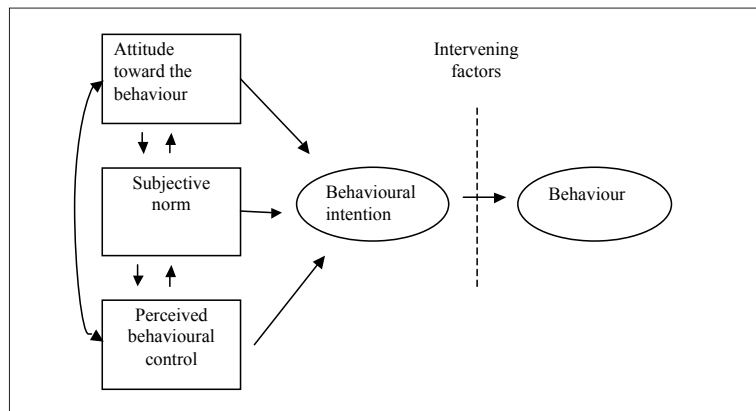


Figure 1: Representation of the theory of planned behaviour Source: (Ajzen, 1991), p. 182.

“Attitude toward the behaviour” is how important an individual considers the outcomes of a behaviour. In the case of human waste removal, some may consider human waste an insignificant impact and therefore not important. “Subjective norms” relate to individuals’ perceptions of their social /cultural group’s expectations of them (peer pressure). Societal

norms are considered to influence beliefs through the normative beliefs. The low number of climbers using the poo pots suggests that the influence of normative beliefs were not strongly positive or may have even influenced behaviour against pot use. “Perceived behavioural control” relates to an individual’s belief that he or she has the competency and control necessary to complete the specified behaviour; climbers who had not experienced the poo pots may not have been confident of their ability to use them. Within this category are also climbers who may be climbing with far more experienced partners who, are being to some extent, lead up the mountain. Climbers in this category might consider that it is the responsibility of the more experienced climber to organise and implement proper disposal of waste and thus have a low perceived behavioural control. These three types of belief, acting in concert, determine the strength of intention to behave in a certain way. In the case of the Aoraki/Mt Cook experience, evidence suggests that these three beliefs were generally not sufficiently positive to influence behaviour. Finally, as the model shows, behaviour driven by behavioural intention will not occur if intervening factors overwhelm the intention. For example, environmental care intentions can come unstuck due to fatigue, cold, hunger and/or lack of equipment.

The model is particularly useful for those of us who are educators because it shows us some of the key beliefs that we need to address in order to gather sufficient strength of behavioural intention. While this model adds different dimensions, it is still a simplification. Increasing the array of exposures to a message (for example, reading about a particular environmental practice, discussing it, and performing scenarios) over a period of time and in different settings should result in greater levels of behavioural intention.

For those of us who are outdoor educators, change models also show how we can more effectively engage with the principles and practice of environmental care and teach these to our students. Throughout our time with students, we need to display positive attitudes to the behaviours we want changed, and to model those behaviours. To achieve this, we need to allow time for ourselves to spend enjoying the outdoors, and testing and learning the behaviours we want our students to acquire. We need to believe - and to convey this belief to our students - that our individual actions do make a difference. Nowhere can we demonstrate this more clearly than when camping. The stream that provides our drinking water needs to be kept separate from where we deposit our toilet waste. We need to ensure our food is positioned so that it cannot be accessed by animals. An opossum that finds a food bag becomes habituated to our food and gains valuable energy for reproduction. Soon we have more of these animals eating our native plants and animals and aggressively seeking human food.

Subjective norms are important. We need to work hard in the outdoors, whether with colleagues, friends or students, to develop a group culture of respect for the environment through appreciation and understanding of the ecosystem. Our friends, co-workers and family will determine to a large extent our attitudes and behaviour through our group culture (subjective norm). We can be powerful in the creation of group culture. Hearing the voices of many different people helps us develop norms in this regard; students, teachers, the people we meet and guest speakers can all reinforce the message that environmental care is the accepted norm. Perceived behavioural control can be enhanced by practice and repetition over time. Environmental care becomes our default behaviour. We need to learn what to do and how to do it, from digging a cat hole for toilet waste to being considerate of the other people we meet on tracks and in huts.

We also need to plan ahead and prepare in order to integrate ECE into our programmes. ECE should be a seamless part of the whole outdoor programme. This approach should ensure that when unforeseen situations arise while we are outdoors and when time is squeezed, ECE is not relegated to the sidelines but remains as an essential part of the programme. Those of us who teach pre-service teachers and require them to lead outdoor classes as part of their practicum or Education Outside the Classroom experience, need to provide these students with time to plan, with appropriate resources and with feedback on their planned programme before everyone sets off. We need to emphasise to them the importance of embedding ECE in their planned outdoor programme. Student-led classes are often highlights of courses and provide an opportunity for students to develop the attitudes and behaviour changes required to bring about environmental care.

### Conclusion and recommendations

I consider that the barriers that hinder the effective delivery of quality ECE in our outdoor education programmes can be overcome through the approaches considered in this article. Having students engage, while outdoors, in activities such as waste disposal that exemplify care for the environment is not difficult. Ensuring that the values underlying such activities translate into long-term attitudinal and behavioural changes needs to be a sustained focus of all outdoor education programmes, whether conducted in the classroom or outdoors.

Students need to be given opportunity to read about, practise and discuss why the environmental care practices we teach them when outdoors are necessary. This provision need not be difficult. We can address the requisite knowledge and behaviour choices without requiring much extra content in the already crowded curriculum of training and assessment schedules.

Research shows, for example, that integrating programmes such as Leave No Trace is effective in sustaining behavioural change (Daniels & Marion, 2005; Marion & Reid, 2007; Settina, 2006).

In addition, assessment and outdoor leader training opportunities should make genuine effort to incorporate a meaningful and relevant environmental care focus. Improving the wording of performance criteria in the technocratic world of unit standards would support this development. Although the aim of this article is to move ECE from the sidelines of outdoor education, the focus on ECE should not overwhelm other aspects of outdoor education but rather complement them.

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### Definitions for this article

*Outdoor Education:* Providing physical experiences while emphasising people's relationship in and with the outdoors (Boyes, 2000). This article focuses primarily on senior outdoor education programmes run in secondary schools.

*The Outdoors:* Settings for outdoor education, often remote from amenities (such as rubbish bins and toilets) and in more natural places (such as conservation, estate, or regional parks).

*Education for Sustainability:* Education for sustainability is about learning to think and act in ways that will safeguard the future well-being of people and our planet (Ministry of Education, n.d.).

*Environmental Education:* Develops the knowledge, awareness, attitudes, values and skills that will enable individuals and the community to contribute towards maintaining and improving the quality of the environment (Ministry of Education, 1999).

*Environmental Care Education:* Focuses on recreational impacts in natural areas. It includes both socio-cultural and ecological impacts. As such, it is a subset of education for sustainability and environmental education.

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## Opportunities for using achievement standards for assessment in outdoor education within New Zealand secondary schools

Crispian Hills

University of Waikato

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### Abstract

This paper discusses the opportunities of the use of achievement standards for assessment within senior secondary outdoor education courses, particularly in light of the recent alignment project for the National Certificate of Educational Achievement (NCEA). The use of achievement standards to assess learning in outdoor education courses has a number of possible benefits including a closer association with the New Zealand Curriculum, the opportunity to develop cross-curricular links provided by not having to focus on particular outdoor pursuits, and the potential of outdoor education being viewed with greater academic credibility. Two examples are provided to illustrate how achievement standards can be used to assess outdoor education courses configured for NCEA.

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**Keywords:** NCEA, achievement standards, secondary school.

### Introduction

Choices about assessment form only one part of the many considerations that outdoor education teachers need to take into account in their courses. Even though assessment only makes up one aspect of any educational course or programme, it is prudent to consider the effect of different assessment choices particularly as "curriculum, pedagogy and evaluation form a whole and should be treated as a whole" (Bernstein, 1974, p. 81). Hill's (2010) interviews with outdoor education teachers in New Zealand highlighted this connection as the teachers felt under pressure to link their courses to measurable assessment tools and the constraints of assessment were effecting what was taught in their courses. Teachers of outdoor education courses within the senior secondary school in New Zealand have choices in regards to assessment for the National Certificate of Educational Achievement (NCEA) which is the main secondary school qualification (NZQA, 2010a). This means a choice of solely using unit standards or achievement standards, or using a combination of both for assessment purposes. Unit standards and achievement standards are both