

Re-envisioning the Status Quo: Developing Sustainable Approaches to Outdoor Education in Aotearoa New Zealand

Allen Hill

A thesis submitted for the degree of Doctor of Philosophy

School of Physical Education

Te Kura Akoraka Whakakori

Division of Sciences

Te Rohe a Ahikāroa

University of Otago

Te Whare Wānanga o Otāgo

PO BOX 56,
DUNEDIN
NEW ZEALAND

November 2011

Abstract

We live in a world characterised by significant environmental degradation issues, increasing social inequality, and economic uncertainty. These pressing issues compel an active response from all sectors of our society to work towards a more sustainable future. The role that education, and more specifically outdoor education, has in this response is an important one. This thesis, therefore, explores how school-based outdoor learning experiences can more effectively educate for a sustainable future. Guided by an eco-justice and sustainability theoretical framework this critical qualitative research engaged eight teachers in ethnographic and participatory action research which attempted to challenge the status quo and re-envision sustainable outdoor education pedagogies in Aotearoa New Zealand.

This research revealed concepts of outdoor education to be contested and influenced by deep cultural assumptions such as anthropocentrism, individualism, and consumerism. The transformative intent of this project stimulated pedagogical change for teachers which included: increasing understandings of sustainability, adopting more sustainable approaches to resource use and programming, and developing innovative teaching and learning strategies. Attempts to re-envision outdoor education through sustainability included initiatives such as: focusing on connection to place, utilising cross-curricular approaches to learning and assessment, and developing underlying programme philosophies with a sustainability focus. However, there remains tension surrounding conceptual disparities in teachers' understandings of sustainability and silences on social justice issues within their thinking and practices. This research also revealed the limitations of current outdoor education practices, even those with a sustainability focus, to influence students' attitudes and behaviours towards sustainable action. Enhancing students' ability to love and care for local and degraded environments, as well as the distant and 'pristine' environments where outdoor learning experiences often occur, is a further challenge for sustainable outdoor education pedagogies.

Acknowledgments

There are many people who I would like to thank for their contribution to this research. First and foremost, I would like to thank my family, Janiene, Bree, Keira, and Finlay, for always supporting me and helping me to keep perspective. To be able to arrive home to a wonderful family everyday was the single most important factor in helping me finish this thesis.

I am indebted to each of the teacher research-collaborators who contributed so thoughtfully and meaningfully to this research. My sincere thanks go to Charlotte Major, Lisa Keating, Fiona McDonald, Chris Jansen, Chris North, Martin Leslie, Phil Washbourn, Pete Brailsford, and Peter Dawkins. Without these people this research would not have been possible. It is with their support and permission that they are acknowledged here in person.

I thank the University of Otago for the financial assistance provided through a Postgraduate Scholarship. Thanks also to the School of Physical Education for financial assistance for research costs and providing high quality resources and space for me to able to conduct this research.

Thanks also to the many staff and fellow postgraduate students at the School of Physical Education, and friends who have helped me in this research journey. At risk of leaving people out, special thanks to Geoff Ockwell, Lucy Spowart, Dave Seath, and Dave Irwin for listening to me, bearing with me, and keeping me in my place.

Finally I would like to thank my supervisors, Mike Boyes and Mark Falcous. You have both been amazing mentors, colleagues, and friends as we have worked together through my PhD apprenticeship. I am indebted to you for all the time and effort you have put into helping me hone this research thesis and my skills as an academic.

Table of Contents

Abstract	i
Acknowledgments	ii
Table of Contents	iii
Table of Figures	vii
Chapter 1: Introduction – What is Outdoor Education For?	1
A Global Socio-Ecological Context	1
Environmental Indicators	2
Social Indicators	5
What is Outdoor Education For?	7
Research Implications and Questions	9
My Personal and Professional Background	10
Thesis Structure and Flow	11
Chapter 2: Theoretical Conceptualisations of Eco-justice and Sustainability	13
Introduction	13
Clarification of Terminology	13
The Frankfurt School and Critical Theory	16
Postmodern Critical Social Theories	19
Critical Pedagogy	24
Critical Ecological Theories	28
Sustainability Theories	37
Conclusion: Conceptualisation of an Eco-justice and Sustainability Theoretical Framework	45
Chapter 3: Context – Outdoor and Sustainability Education in Aotearoa New Zealand	49
Introduction	49
Global Influences on Education	50
Influences on New Zealand Education	52
Global Trends, Ideas, and Practices in Outdoor Education	57
The Development of Traditional Outdoor Education in New Zealand Schools	61
Critical Socio-ecological Perspectives in Global and New Zealand Outdoor Education	67
Education for Sustainability in New Zealand Schools	71
Conclusion	73
Chapter 4: Towards a Critical Inquiry – Methodology and Research Approach	75
Introduction	75
A Research Approach Informed by Bricolage	76
A Basis for Critique: Employing Critical Ethnography	80

Phase one: Ascertaining the status quo.....	83
From Critique to Transformative Change: Employing Participatory Action Research.....	84
Phase two: Rethinking the status-quo.....	88
Phase three: Reflection and evaluation.....	90
My Roles as a Reflexive Critical Researcher.....	91
Interpretation and Representation.....	93
Teacher Research Collaborators.....	98
Ethical Considerations.....	101
Conclusion.....	102
Chapter 5: Exploring the Status Quo Part One – Deep Cultural Assumptions in Outdoor Education	105
Introduction.....	105
Contested Notions of Outdoor Education.....	106
Cultural Assumptions Woven Into the Fabric of Outdoor Education.....	108
Anthropocentrism.....	109
Individualism in Outdoor Education.....	113
Technological Progress in Outdoor Education.....	118
Consumerism in Outdoor Education.....	123
Segue.....	126
Chapter 6: Exploring the Status Quo Part Two – Opportunities for Sustainability in Outdoor Education	127
Introduction.....	127
Connection to Place and Guardianship in Outdoor Education.....	127
Building Community and Relationships in Outdoor Education.....	132
Constraints and Enablers to Sustainability in Outdoor Education.....	136
Institutional (School) Structures.....	136
Assessment and Qualifications.....	138
Cross-Curricular Thinking.....	141
Conclusion.....	143
Segue.....	145
Chapter 7: Establishing a Philosophical Basis for an Outdoor Education Programme	147
Context.....	147
Impacting Philosophy, Values, & Understanding.....	150
Implementing Change to Resource Use, Infrastructure, & Programming.....	154
Implementing Change to Pedagogy and Teaching & Learning Strategies.....	156
Challenges to Developing Sustainable Approaches to Outdoor Education.....	159
Teacher Perceptions of the Research Process.....	163

Chapter 8: Sustainability in Tertiary Teacher Outdoor Education.....	167
Context.....	167
Impacting Philosophy, Values, & Understanding.....	169
Implementing Change to Programming and Course Structure	175
Implementing Change to Pedagogy and Teaching & Learning Strategies	176
Envisioning Sustainable Outdoor Education.....	178
Teacher Perceptions of the Research Process	182
Chapter 9: Connection to Place, Outdoor Education, and Sustainability.....	185
Context.....	185
Influences on Philosophy and Programming	187
Taking Action – Investing in Connections	189
Future Directions	198
Teacher Perceptions of the Research Process	200
Chapter 10: Developing Deep Level Understandings of Sustainability.....	203
Context.....	203
Impacting on Philosophy and Understandings	205
Taking Action, Making Change.....	207
Conceptualising Sustainability	212
Tensions and Contradictions.....	214
Teacher Perceptions of the Research Process	216
Chapter 11: Sustainability Assessment in Outdoor Education Programming	219
Context.....	219
Impacting on Philosophies and Understandings	222
Conceptualising Sustainability	225
Buying New Zealand Made	227
Future Directions for Outdoor Education	232
Teacher Perceptions of the Research Process	236
Chapter 12: Conclusion – Towards Sustainable Outdoor Education Pedagogies	239
Introduction	239
Theme A: Contested Notions of Outdoor Education in Aotearoa New Zealand	240
Exposing assumptions in outdoor education	241
Theme B: Stimulating Change in Outdoor Education towards a Sustainable Future	244
A change model for sustainable outdoor education	244
Change in philosophy, values and understandings	245
Change in resources, infrastructure, and programming	247
Change in teaching and learning strategies.....	248
Underlying change principles	249

Summary	250
Theme C: Reflections on Sustainability in Outdoor Education	251
Conceptualisations of sustainability	251
Cross-curricular approaches to sustainability.....	253
Connection to place as a central theme for sustainable outdoor education	253
Action competence: Moving from the pristine and distant to the local and degraded	256
Constraints to sustainability in outdoor education	257
Theme D: Reflections on Methodology and Theoretical Framework.....	259
Reflections on an eco-justice and sustainability theoretical framework.....	259
Reflections on Sustainability, Bricolage and Methodology	263
Tensions between and within critical and change focused methodologies.....	264
Participatory action research as professional learning and development	266
Concluding Comments: Implications for Theory, Practice, and Future Research.....	268
References.....	273
Appendix A: Phase One Interview Guide	293
Appendix B: Workshop 1 Outline	295
Appendix C: Collaborative activity poster example	297
Appendix D: Workshop One Presentation	299
Appendix E: Workshop 2 Outline	303
Appendix F: Workshop 2 Presentation	305
Appendix G: Workshop Three Outline	307
Appendix H: 'One-pagers' as a data collection method.....	309
Appendix I: Workshop 3: Research Group Handout	311
Appendix J: Information Handout for Workshop Three	315
Appendix K: Workshop Four Outline.....	319
Appendix L: Workshop Four Handout.....	321
Appendix M: Summary Workshop Outline	325
Appendix N: Final Interview Guide.....	327
Appendix O: University of Otago Ethics Approval.....	329
Appendix P: Project Information Sheet.....	333
Appendix Q: Consent Form	337
Appendix R: Letter to Principals.....	339
Appendix S: Adventure Education Questionnaire (Bryn).....	341

Table of Figures

Figure 1. What are we leaving behind for our children (Statistics New Zealand, 2009, p. 6).....	4
Figure 2. How well are resources distributed (Statistics New Zealand, 2009, p. 4).....	6
Figure 3. Alternative models of sustainability (Sustainable Aotearoa New Zealand Incorporated, 2009, p. 8)	40
Figure 4. Education for sustainability – Koru model (Law, 2006)	44
Figure 5. A model for change in outdoor education towards sustainability.....	245

Chapter 1: Introduction – What is Outdoor Education For?

“The conventional wisdom holds that all education is good and the more of it one has, the better. . . . The truth is that without significant precautions, education can equip people merely to be more effective vandals of the earth” (Orr, 2004, p. 5).

The above quote from environmental educator and academic, David Orr, challenges the assumption that all education is inherently good. It also places educational objectives within wider contexts which consider ecological and environmental consequences. Orr further suggests that many of the things upon which human survival rests, such as climate stability, productivity of natural systems, and biodiversity, are in ‘dire jeopardy’. He notes that these issues are largely the result of work by educated people. Orr’s comments impel educators to critically reflect on the purpose of their endeavours. His comments also compel consideration of how education interacts with wider environmental, ecological, and sustainability issues. In many ways, Orr’s comments reflect the general impetus of this thesis; that is, to critically examine and re-envision school-based outdoor education in Aotearoa New Zealand through sustainability perspectives. This project seeks to address the dual aims of critical qualitative research; critique and transformative change. Through critical ethnography and collaborative action research with eight outdoor educators, it has challenged dominant approaches to outdoor education pedagogy and programming, and considered how outdoor learning experiences might better engage with environmental and social sustainability issues.

This introductory chapter sets the scene for the thesis and provides guidance for its flow and structure. First, it briefly details the global social and ecological context within which educational endeavours sit. Second, it considers how and why outdoor education pedagogy might respond to those social and environmental issues. Third, it introduces the research questions and approach that guide the critique and re-envisionment of outdoor education pedagogy in this thesis. Fourth, it discusses the influence of my personal subjectivity and background on the research herein. Finally, the overall structure of the thesis is introduced.

A Global Socio-Ecological Context

We live in uncertain times, characterised by significant global environmental threats, social issues, and economic instability. These are evidenced in many ways including: the well

documented 2008 global financial crisis, climate change concerns, threats to biodiversity, and increasing income inequality in many nations (see Bowers, 2001b; Flannery, 2005; Hamilton, 2010; Millennium Ecosystem Assessment, 2005; Monbiot, 2007; Orr, 2004, 2009; Plumwood, 2002; Sterling, 2001; Suzuki, 2003; Wilkinson & Pickett, 2009). As this thesis is centred on how outdoor education pedagogies might address sustainability and eco-justice issues, it is important to outline environmental and social sustainability contexts. The literature and debates surrounding many of these issues are vast, which precludes a comprehensive overview in this introductory chapter. This section, therefore, draws selectively from literature to give a brief contextual overview.

Environmental Indicators

There are many indicators that point to global environmental degradation and ecological issues. Pressing contemporary environmental issues include: increasing carbon emissions, deforestation, climate instability, ecosystem degradation, pollution, waste, decreasing biodiversity, desertification, erosion, and water quality issues. Two significant indicators of these issues will be discussed here; the main findings of the United Nations Millennium Ecosystem Assessment (MEA) (2005), and climate change effects. These are important indicators to understand because of the potentially significant impacts they have at both a local and global scale. These issues also have implications for education, particularly those approaches that are committed to educating for a sustainable future.

The purpose of the Millennium Ecosystem Assessment, which was implemented between 2001 and 2005, was “to assess the consequences of ecosystem change for human well-being and to establish the scientific basis for actions needed to enhance the conservation and sustainable use of ecosystems and their contributions to human well-being” (Millennium Ecosystem Assessment, 2005, p. v). This assessment involved an international academically robust process which drew on a wide range of more than 2,000 authors and reviewers worldwide. There were four main summary findings from the MEA synthesis report which are worth quoting at length below (Millennium Ecosystem Assessment, 2005, p. 1):

1. Over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water, timber, fibre, and fuel. This has resulted in a substantial and largely irreversible loss in the diversity of life on Earth.

2. The changes that have been made to ecosystems have contributed to substantial net gains in human well-being and economic development, but these gains have been achieved at growing costs in the form of the degradation of many ecosystem services, increased risks of nonlinear changes, and the exacerbation of poverty for some groups of people. These problems, unless addressed, will substantially diminish the benefits that future generations obtain from ecosystems.
3. The degradation of ecosystem services could grow significantly worse during the first half of this century and is a barrier to achieving the Millennium Development Goals.
4. The challenge of reversing the degradation of ecosystems while meeting increasing demands for their services can be partially met under some scenarios that the MA has considered, but these involve significant changes in policies, institutions, and practices that are not currently under way. Many options exist to conserve or enhance specific ecosystem services in ways that reduce negative trade-offs or that provide positive synergies with other ecosystem services.

The findings of the Millennium Ecosystem Assessment present concerning reading. Whilst there is recognition of “substantial gains in human well-being and economic development”, this has come largely at the expense of the ecosystems which supported those gains. The Millennium Ecosystem Assessment warns of significant problems for future generations unless the ongoing degradation of ecosystems is addressed. Furthermore, it considers there is need for “significant changes in policies, institutions, and practices” (p.1) if ecosystem degradation is to be reversed. What must be emphasised from the findings of the MEA is the total reliance of the human species on the ecosystems which we interact with. As detailed in Chapter 2, strong sustainability models reveal the dependence of social and economic spheres of life on the environment. A key aspect of the environment upon which we significantly rely is climate stability.

In the past decade there has been growing concern about the stability of our climate. There is now unequivocal evidence to support warming of the climate system and it is very likely that this is caused by increases in anthropogenic greenhouse gas emissions (IPCC, 2008). What is even more concerning, according to Hamilton (2010), is that “rather than declining or even growing more slowly, global emissions have in fact been accelerating over the last decade” (p. 14). Left unchanged, it is clear that increasing anthropogenic emissions and climate warming will have significant implications for the future of human existence on this planet. According to the IPCC (2008, p. 10) *Fourth Assessment Report* some impacts associated with global average

temperature change include: increased water stress, increasing species extinction, coral bleaching, negative impacts on food production, increased damage from floods and storms, and increasing burden from malnutrition and diseases. These impacts demand a response. As Hamilton (2010) articulates,

The urgent question we must now ask ourselves is whether the global community is capable of cutting emissions at the speed required to avoid the earth passing a point of no return beyond which the future will be out of our hands. It is this irreversibility that makes global warming not simply unique among environmental problems, but unique among all the problems humanity has faced. (p. 14)

As Hamilton starkly points out above, global climate change is a unique and pressing issue that must be addressed at a multiple levels. Orr (2009) suggests that anthropogenic global warming will only be tackled through political will and leadership. Shiva (2008) meanwhile advocates for a responses to climate change which involves a “multidimensional transition of economy, politics and culture” (p. 6). It is clear that there is no simple solution to these issues. All spheres of life including educational systems, institutions, programmes and pedagogy must respond to the very real threat presented by climate change.

Some of the findings of the Millennium Ecosystem Assessment (2005) and the IPCC (2008) report can be compared to New Zealand contexts through Statistics New Zealand’s (2009) publication *Measuring New Zealand’s Progress Using a Sustainable Development Approach: 2008*. A summary of environmental indicators is displayed in figure 1 below.

Table A4
What are we leaving behind for our children – summary of key indicators







Indicator	Target trend	What has happened	Actual result
2.2 Distribution of selected native species		Since the 1970s, the distribution of all seven indicator species has continued to decline.	
3.1 Net greenhouse gas emissions		New Zealand’s net greenhouse gas emissions have grown since 1990, although there has been little change since 2002.	
4.2 Nitrogen in rivers and streams		Levels of nitrogen at monitored river and stream sites have increased since 1989.	

Figure 1. What are we leaving behind for our children (Statistics New Zealand, 2009, p. 6).

The table above indicates that New Zealand’s greenhouse gas emissions have grown, that native species biodiversity continues to decline and that pollution of rivers and streams has increased. These findings challenge the taken-for-granted notion that New Zealand is a clean, green country and suggest that significant environmental progress needs to be made to address local and global ecological issues.

It is evident that our planet, including Aotearoa New Zealand, faces unprecedented pressure on ecosystems and natural resources which seriously threaten environmental, ecological, and social viability for future generations. Humans are using the resources of this planet at rates which far outweigh its sustaining capacity. What might be described as an ‘ecological crisis’ is portrayed by Plumwood (2002) as a failing of reason and culture. She suggests that cultures influenced by global capitalism and its associated reason are incapable of adapting themselves to the limits of the planet. Furthermore she argues that over-consuming Western societies demonstrate aspects of denial in continuing to promote patterns of thinking and behaving which are ecologically irresponsible and unsustainable. Plumwood’s ideas are strengthened by Bowers (2001b; 2003b) and Sale (1995) who would maintain that the ‘ecological crisis’ is largely the consequence of industrialised human progress. Capturing some of the details of this progress, Shiva (2008) eloquently argues that “the shopping mall and the supermarket are temples of consumerism through which global corporations seduce us into participating in the destruction of our productive capacities, our ecological rights, and our responsibilities as earth citizens” (p. 7). The perspectives provided here suggest that social, cultural political, and economic systems of over-consuming Western nations, lie at the heart of the environmental issues the planet now faces. Whilst recognising such systems have brought about gains in economic development for some they appear largely responsible for environmental degradation. Furthermore, rather than addressing poverty and social justice issues, there is evidence to suggest that global capitalist systems have led to greater levels of inequality, as discussed below.

Social Indicators

Within a theoretical framework of eco-justice and sustainability, conceptualised in Chapter 2, it is impossible to consider environmental, ecological, or social issues in isolation. As Bowers (2001b) states, “any definition of social justice that does not take account of how human demands on the natural environment are affecting the lives of future generations is fundamentally flawed” (p. 3). Consequently, it is important to consider indicators of social inequality. Global poverty and inequality are not new issues. Almost a decade ago, Giroux (2003) pointed out that,

Not only does the total wealth of the top 358 global billionaires equal the combined incomes of the 2.3 billion poorest people (45 per cent of the world’s population), but 800 million people are permanently undernourished, and something like 4 billion – two thirds of the world population – live in poverty. . . . It is also worth noting that in addition to the sky-rocketing gap between the rich and the poor, I am also referring to a culture of greed

in which conspicuous consumption and waste become the hallmarks of status and social climb. (p. 15)

As Giroux comments above, a significant percentage of the world's population live in poverty and that gaps between the rich and poor are increasing. This phenomenon has been further expanded by the influential work of Wilkinson and Pickett (2009) in the book *The Spirit Level: Why Greater Equality Makes Societies Stronger*. Notwithstanding the obvious equality gaps between rich and poor nations, Wilkinson and Pickett investigated the effects of average income and income inequality on health and social problems in 21 of the world richest nations.¹ Their findings reveal no significant correlation between health and social problems and average incomes across those 21 Western nations. However, the correlation between income inequality and health and social problems was strong; that is, societies which had greater levels of income inequality had greater levels of health and social problems. Of particular interest to this thesis was the place of Aotearoa New Zealand in these statistics. Of the 21 nations in the study New Zealand ranked the fifth highest for both income inequality and health and social problems. On a comparable scale New Zealand ranked second worst on the UNICEF (United Nations Children Fund) index of child wellbeing. These are concerning findings which are further supported by Figure 2 below.

Table A2
How well are resources distributed – summary of key indicators

Indicator	Target trend	What has happened	Actual result
10.8 Access to early childhood education, by ethnicity	↑	Since 2000, the gap in participation rates in early childhood education by different ethnic groups narrowed.	✓
12.3 Income inequality	↓	Between 1988 and 2007, income inequality between households with high incomes and households with low incomes widened.	✗
12.4 Population with low incomes	↓	The proportion of the population recognised as having low incomes has risen since the early 1980s.	✗

Figure 2. How well are resources distributed (Statistics New Zealand, 2009, p. 4).

Whilst the findings in the table above indicate improvements in access to early childhood education they make clear that income inequality in Aotearoa New Zealand has increased along with the proportion of the population with low incomes. Coupled with the findings of Wilkinson

¹ Using data sources such as: the World Bank, the World Health Organisation, The United Nations, and the Organisation for Economic Cooperation and Development (OECD).

and Pickett (2009) these statistics indicate significant social inequality issues for Aotearoa New Zealand.

The brief synopsis of social indicators given above must be viewed alongside global environmental issues. Wilkinson and Pickett (2009) for example, recognise the links between inequality and issues such as global climate change, and suggest that these issues need to be addressed in tandem. As indicated earlier in this chapter, Plumwood (2002) and Shiva (2008), lay the blame for the current 'ecological crisis' at the feet of the unsustainable social fabric of capitalist Western society and accompanying consumer-oriented lifestyles. Wilkinson and Pickett urge that in order to move towards a sustainable and more equal future, we need to recognise that consumerism, individualism, and materialism are not fixed expressions of human nature but can be changed. Thus, ecological and social inequality issues compel a critically reflective and active response from all sectors of our society including education. With an air of hope, Orr (2009) reminds us that "destiny is the sum total of the choices we make, and we have the power to make different choices and hence to create a destiny better than that in prospect" (p. 9). It is on this hopeful note that this chapter considers the implications of global socio-ecological issues for outdoor education pedagogy.

What is Outdoor Education For?

The opening lines of this thesis cited David Orr's challenge to the assumption that all education is inherently good. In the first chapter of his book, *Earth in Mind*, Orr (2004) further scrutinises education by asking the question; what is education for? Given the socio-ecological context outlined above, Orr (2004) suggests that the success of education can no longer be measured against capitalist market values but "must now be measured against the standards of decency and human survival" (p. 8). It is important to acknowledge that education has many important roles in our society, and outdoor education may only be a small field or pedagogical approach within that. Nevertheless, I believe a re-evaluation of the success and purpose of outdoor education against the standards suggested by Orr, has now become too important to overlook.

In his book *Sustainable Education: Re-visioning Learning and Change*, Sterling (2001) suggests that current Western education systems are fulfilling socialisation, vocational, and liberal functions. These functions serve to replicate society and culture, train people for employment, and develop individuals' potential. What is missing from this educational paradigm, according to Sterling, is a transformative function which encourages change towards a

more equal society and more sustainable world. If the answer to the question, ‘what is education for?’ is answered only by socialisation, vocational and liberal functions, then our education system may fail both our current students and future generations. It is preparing them only for the world which we know, one of social disparity and ecological degradation. Consequently, Sterling advocates for education which embraces a transformative function to help equip students for a sustainable future. A commitment to transformative education underpinned by eco-justice and sustainability principles lies at the heart of this thesis.

Outdoor education both internationally and in New Zealand is a contested concept which has been historically and socially constituted. As Chapter 3 subsequently discusses, precise conceptualisation and definition of outdoor education is difficult and even problematic. As Nicol (2002a) reminds us, “outdoor education defies definition in terms of being a fixed entity of common consent, homogeneous over time and space” (p. 32). I am therefore cautious about providing a simplified or reductionist definition of outdoor education. Notwithstanding this caveat, I believe traditional notions of outdoor education have embraced liberal, vocational, and socialisation functions. Historically outdoor education in New Zealand has developed from curriculum enrichment ideals based on cross-curricular school camps. More recently it has moved towards a focus on teaching outdoor pursuits and associated skills (see Lynch, 2006). This has led to a dominant view of outdoor education in this country which is summarised by Payne & Wattchow (2008) who state,

Traditionally, mainstream or *modern* outdoor education has focused on certain outdoor activities and pursuits, preoccupied itself with notions of adventure and challenge, touched on the paradox of risk and safety, and emphasised the human, or anthropocentric, benefits of personal and social development by being immersed in the outdoors. (p. 25)

These traditional notions of outdoor education have recently been subject to critical scrutiny. Consequently, there have been increasing calls for incorporation of sustainability, socio-ecological, and place-responsive approaches into outdoor education thinking and practice (see Brown, 2006; Gough, 2007; Loynes, 2002; Lugg, 2007; Martin, 1999; Maxted, 2006; Nicol, 2003; Payne & Wattchow, 2008; Thomas, 2005; Wattchow & Brown, 2011). This shift, according to Payne & Wattchow (2008) does not mean that “we dismiss the pedagogic potential of outdoor journeys that rely upon particular outdoor activities and technologies” (p. 36). However, I believe the critical examination of outdoor education does involve questioning the educational value of outdoor learning experiences through asking; what is outdoor education for? In the

context of global climate warming, ecosystem degradation, and increasing social inequality, I believe the answer to this question must rest, at least in part, in transformative educational objectives which contribute towards a sustainable future. Whilst I recognise that liberal functions in outdoor education, such as personal and social development have merit, these outcomes “must now be measured against the standards of decency and human survival”² (Orr, 2004, p. 8). Investigating potential for outdoor education pedagogy to contribute to addressing sustainability issues has underpinned the purpose of this thesis and significantly influenced the research questions and methodology.

Research Implications and Questions

The aims of this research project are twofold: first, to challenge the existing and taken for granted in outdoor education theory and practice; and second, to re-envision outdoor education pedagogy through eco-justice and sustainability principles. As established earlier in this chapter, this intent is commensurate with the dual aims of critical research; those of critique and transformative change (Guba & Lincoln, 2005). These aims of the project guide the research questions and have implications for theoretical and methodological considerations. Embedded with a critical qualitative paradigm, this research has utilised critical ethnography and participatory action research methods to investigate the following research questions.

1. How do deep cultural assumptions influence and interact with conceptions of outdoor education in the New Zealand secondary school context?
2. How can outdoor education be re-envisioned through eco-justice and sustainability principles to more effectively educate towards a sustainable future?
3. What role can collaborative action research play in facilitating professional learning and development for teachers which involves thinking and practice based on sustainability principles?

The research approach adopted in this project involved working with a group of eight outdoor education teachers through three research phases over a twelve month period. Throughout all of these phases there was a strong intent to maintain a reciprocal and collaborative approach to the research process. Phase one focused on ascertaining teachers’

² When Orr (2004) talks about standards of human decency and human survival he is referring to these in the context of sustainable and just ways of living which don’t put at jeopardy the ecosystems by which human survival depends.

perceptions of outdoor education, sustainability, environmental and social issues, and cultural assumptions at the beginning of the research process. Research information for this phase was collected through casual conversations, a semi-structured interview, and viewing departmental policies and programme plans. Phase two engaged teachers in professional learning and development workshops and the implementation of action plans in an attempt to rethink outdoor education practice and pedagogy. Specifically, this phase was facilitated through a series of five workshops spread across 2009. Phase three involved evaluating both the actions that teacher research collaborators had taken and the overall influence of the professional development and action research process. Of particular interest were teachers' perceptions of how the research process had impacted on their own thinking and practice, the people around them (their students and other staff), their relationships with the environment, and the potential for outdoor education pedagogy to help educate for a sustainable future.

Throughout the entire project I was closely involved with all aspects of the research process whereby my own personal and professional background and subjectivities played a significant role. This presented both positives and challenges for the chosen research approach as well as epistemological and ontological implications. Whilst these considerations are discussed in more detail in Chapter 4, along with personal reflections in the conclusion chapter, I believe it is important to briefly detail my background and subjectivity at this point.

My Personal and Professional Background

Growing up in rural and small town New Zealand introduced me to experiences in a variety of outdoor environments including sports fields, local streams and rivers, forest parks, and mountains. After developing a passion for sporting and outdoor activities during my childhood I embarked on a career in education. After completing a Bachelors degree in Physical Education and Graduate Diploma of Teaching I began teaching physical education and outdoor education in secondary schools. In eleven years of secondary education I was privileged to serve in a number of school-based leadership roles, the most recent of which was as head of a large outdoor education programme at Papanui High School in Christchurch. As my secondary teaching career progressed I grew to value the opportunities and potential that outdoor environments held for a variety of learning outcomes. My increasing passion for the outdoors was matched by a growing interest in social justice and environmental issues. As I began to read literature in these areas my criticality was stimulated and developed, much to the amusement and sometimes frustration of my friends, colleagues, and family.

In 2007 I returned to university to complete a Post-graduate Diploma in Outdoor Education. During this year my critical sensibilities, knowledge of environmental and social issues and theories, and interest in research developed significantly. It was from that point that I embarked on this PhD journey. Throughout my PhD project I have been passionately and purposefully involved. My interests in outdoor learning pedagogy, sustainability and justice issues, and transformational education have driven every aspect of this project. I feel like I have held many roles in this process; from advocate to activist, colleague to mentor, apprentice to tradesman, and researcher to self-reflective learner. These roles have interwoven to guide, facilitate, and enhance the research process by helping me to keep my eye on a bigger socio-ecological picture. I ardently believe the social, environmental, and ecological issues our planet faces are too significant to ignore. As an educator and aspiring academic I am strongly committed to exploring ways that education might contribute to a sustainable future. Whilst this project has engaged the context of outdoor education I hold to Stephen Sterling's vision of 'Sustainable Education' for all parts of our education system.

Thesis Structure and Flow

In order to capture the structure and flow of this thesis it is useful to briefly outline each chapter. Chapter 2 provides a theoretical framework for the thesis by synthesising a range of critical social, ecological, and sustainability theoretical perspectives. Chapter 3 explores wider educational contexts in Aotearoa New Zealand including the development and contested nature of outdoor education both internationally and locally. Chapter 4 details the methodological approach taken in this research and explores the epistemological and ontological implications of conducting critical qualitative research. Chapters 5 and 6 seek to capture teachers' perceptions of outdoor education, sustainability, and cultural assumptions at the beginning of the research process. In particular, Chapter 5 examines how deep cultural assumptions might influence and interact with some aspects of outdoor education in Aotearoa New Zealand, whilst Chapter 6 discusses possibilities and opportunities for outdoor education pedagogy to be informed by eco-justice and sustainability.

The next five chapters explore the impacts of the research project on teachers in the research group. Each chapter focuses on a single teacher and explores how the research process influenced them and their conceptualisation of sustainability, particularly as it relates to outdoor education. These chapters also outline the action plans which teachers implemented and how

these plans influenced their pedagogy and programmes. Chapter 7 considers how Sophie³ improved her own knowledge of sustainability and developed a philosophy statement, which included sustainability principles, for her outdoor education programmes. Chapter 8 explores Josh's personal interactions with sustainability concepts and reviews the incorporation of sustainability content and objectives into his outdoor and environmental education course. Chapter 9 considers the concept of connection to place as Bryn sought to further understand how he could facilitate connection to and care for place in his outdoor education courses. Chapter 10 follows Mike as he developed deeper understandings of sustainability and tried to incorporate sustainability more broadly into his outdoor education programmes. Chapter 11 explores how Rachel sought to overcome assessment constraints by adapting and utilising an education for sustainability achievement standard and associated learning outcomes into an outdoor education course.

The final concluding chapter draws together the threads that run through this thesis and provides some insight into a re-envisioned outdoor education pedagogy. It does this through critically examining some taken-for-granted aspects of traditional outdoor education and exploring how change towards more sustainable approaches in school-based outdoor education might be stimulated. The conclusion also critically reflects on how conceptualisations of eco-justice and sustainability might fit within outdoor education and how the theoretical framework and methodology employed in this research have been both useful and problematic. Finally the concluding chapter discusses implications for the future of outdoor education and offers suggestions for potential future research.

³ Pseudonyms have been used for each teacher in the text of this thesis to ensure confidentiality of specific quotes and contexts. Teachers in the research group have been acknowledged by name in the acknowledgment section of this thesis with their permission.

Chapter 2: Theoretical Conceptualisations of Eco-justice and Sustainability

Introduction

Drawing on concepts of eco-justice and sustainability, this chapter provides a theoretical framework which underpins and informs the context, questions, methodology, analysis, findings, and implications of this research project. In a greater sense, the chapter also seeks to make a contribution to the theoretical and pedagogical landscape in the field of outdoor education. It is the intention of this chapter to examine a variety of literature and perspectives that contribute to critical social and ecological theory such as: Frankfurt critical theory, postmodern social theory, critical pedagogy, critical ecological perspectives, and theories of strong sustainability and education for sustainability. Underpinning this chapter is the assumption that concepts such as eco-justice, sustainable development, and education for sustainability are historically and socially constituted and therefore, contested. This assumption highlights the importance of a strong theoretical base on which to build transformative educational research which seeks to address issues of multiple injustices and make suggestions toward a sustainable future.

The content of the chapter will initially clarify some of the terminology associated with concepts of eco-justice and sustainability. I outline the theoretical contributions these perspectives provide and explore philosophical and paradigmatic differences which contribute to epistemological positions within critical socio-ecological theories. I subsequently offer a theoretical position which informs the critique and re-visioning of outdoor education in New Zealand through eco-justice and sustainability. This theoretical framework provides a basis for the methodological considerations and research questions which guide this thesis.

Clarification of Terminology

In attempting to understand the contested nature of eco-justice and sustainability it is useful to consider the terms that contribute to the concepts. It has been suggested by Martusewicz and Edmundson (2005), and Wayne and Gruenewald (2004) that the pairing of the constructs *eco* and *justice* expands the discourses of justice into the entire ecological domain, offering a theoretical, ethical, and political framework that encompasses, deepens, and critiques understandings of social justice. Traditional discourses of social justice have reflected a critical humanist perspective that have focused on issues of inequality and lack of educational, political

or economic opportunities (Furman & Gruenewald, 2004). These inequality issues are often framed in terms of class, race and gender but have largely ignored environmental and ecological justice issues as argued by Bowers (2003a), and Furman and Gruenewald (2004). Many of these social justice discourses are intimately linked to Frankfurt school critical theory and Freireian critical pedagogy which will be examined in detail in the next section.

Environmental and ecological justice are terms that have related but different meanings. According to Low and Gleeson (1998), *environmental justice* is concerned with challenging the distribution of harmful or toxic environments or places predominantly among the poor or ethnic minorities. Bowers (2001d) refers to this phenomena as “environmental racism” (p. 411) and cites frequent examples of locating toxic waste dumps or highly polluting factories in environments adjacent to or within poor or ethnic minority communities. The emergence of the concept of environmental justice is further supported by the work of North American researchers and writer such as Faber (1998), Pulido (2000), and Horfrichter (2002) who have researched and written about specific instances of environmental degradation in low socio-economic or racial minority areas. Ecological justice then, is primarily concerned with justice within ecological relationships, particularly between human and non-human nature (Low & Gleeson, 1998). In this sense ecological justice is more concerned about the condition of nature and how exploitative and degrading human practices impact on nature’s ecological systems and relationships. Contributors to the environmental crisis, such as the extinction of species, climate change, and deforestation are often consequences of ecological injustice.

Eco-justice positions can be viewed as a complex *mélange* of the concepts of social, environmental, and ecological justices. They do not ignore or downplay the importance of addressing poverty and limited opportunities for self and community development. Eco-justice does however promote the idea that in addressing social justice issues, one must take account of ecological relationships and the inter-related nature of social, environmental and ecological justice. As Bowers (2001b) articulates:

Any definition of social justice that does not take account of how human demands on the natural environment are affecting the lives of future generations is fundamentally flawed. Indeed it seems incomprehensible to write about social justice for women, minorities and the economic underclass without considering ways in which the Earths’ ecosystems are being rapidly degraded. (p. 3)

Closely linked to eco-justice, sustainability discourses are also concerned with the dynamic and complex relationships between the environmental, socio-cultural, and economic spheres of life. While the various terms associated with these discourses are socially constructed and contested, it is useful to consider some popular uses of these terms. Sustainable development, according to what is commonly known as the Brundtland Report (World Commission on Environment and Development, 1987), can be defined as development that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (p. 8). Weak sustainability, according to Neumayer (2003), can be interpreted as an extension of neoclassical welfare economics which is “based on the belief that what matters for future generations is only the total aggregate stock of ‘manmade’ and ‘natural’ capital (and possibly other forms of capital as well)” (p. 1). This model would allow the use and degradation of non-renewable natural resources providing their use increases capital in other areas, particularly financial or economic capital. Strong sustainability stands in opposition to weak sustainability, according to Neumayer (2003), who suggests that although strong sustainability is more difficult to define its essence is that “natural capital is regarded as non-substitutable, both in the production of consumption goods and as a direct provider of utility” (p. 1). This position would not permit the profligate use of non-renewable resources in the hope that future technologies would provide equal utility. Finally, education for sustainability, according to the New Zealand Parliamentary Commissioner for the Environment (PCE) (2004), can be viewed as “an emerging concept that encompasses a new vision of education that seeks to empower people of all ages to assume responsibility for creating a sustainable future” (p. 36). These concepts will be explored, critiqued and expanded to some extent in a subsequent section of this chapter.

This chapter must move beyond providing simplistic definitions of terms. In building a robust theoretical framework I believe it is important to consider historical and contemporary critical traditions that influence, inform, and contribute to eco-justice and sustainability theoretical perspectives. The first step in this process is to explore the tradition of critical theory, particularly through the histories and perspectives of the Frankfurt School.

The Frankfurt School and Critical Theory

This section explores the historical development of critical social justice theories, particularly those of the Frankfurt School⁴. Critical theory had its origins in the Weimar republic of Germany in the 1920s and 30s, led by Frankfurt School academics, of whom the most well-known were Max Horkheimer, Herbert Marcuse and Theodor Adorno (see Morrow & Brown, 1994; Peters et al., 1996; Rush, 2004). Critical theory was originally conceived as an interdisciplinary diverse approach which attempted to examine and explain why a Marx prophesised socialist revolution had not occurred in the mid to late nineteenth century as expected (Agger, 1991). Despite a modern disposition, the roots of critical theory can be traced back as far as Greek philosophy where the conception of “critical” in the Greek sense of the verb *krinein* was to discern, reflect and judge, while ‘theory’ in the sense of the Greek noun *theoria* referred to a way of seeing and contemplation (Kellner, 2003). This type of critique involved examination of personal thoughts and actions as well as everyday social life and its attached institutions, values and dominant ideas. These ideas of critique were recaptured by Enlightenment philosophers such as Kant and Hegel. The Kantian critique, which is central to Enlightenment thinking, questioned all phenomena in terms of their ability to be grounded or legitimated by reason (Kellner, 2003). This gives rise to dominant modern thinking where critical rationality is viewed as the most legitimate or highly valued way of obtaining knowledge. The Hegelian critique developed more complex dialectical perspectives which criticised one-sided positions (Kellner, 2003). Hegelian dialectics presents the development of ideas as central to the development of society, with ideas synthesising from a dialogue or interplay between a particular position or thesis and its corresponding opposite or anti-thesis. Inherent to Hegel’s philosophy is a progressive view of history and identity formation (Peters et al., 1996). This dialectical approach to the development of knowledge informs and underpins the methodological approach employed in this thesis (see Chapter 4); whereby working with teacher research-collaborators in a two-way reciprocal relationship helped to provide insight into how sustainability and eco-justice perspectives might be integrated into contemporary outdoor education.

⁴ Frankfurt School critical theory, influenced by Hegelian and Marxist dialectical materialist thought, can be seen as a Hegelian reappraisal of Marxism or reconstruction of Marxist logic and method, to develop a Western or neo-Marxism that was relevant to twentieth century capitalism (Agger, 1991; Peters, Hope, Webster, & Marshall, 1996).

Influenced by Hegelian philosophy, Frankfurt critical theory drew on a Marxist position, underpinned by the concept of dialectical materialism, which viewed all historical and social events as products of the conflicts and dialogues of opposing forces and positions (Soanes & Stevenson, 2006). In the Marxist sense, these conflicts and dialogues take place within the context of capitalist ideology which tends to develop internal economic irrationalities, consequently concentrating wealth with those who control capital at the expense of workers. Marxist theory, undergirded by a commitment to overthrow these oppressive and exploitive social conditions, is focused on revealing how all forms of oppression are interconnected and linked to the ownership of capital, means of production and provision of labour (McLaren & Farahmandpur, 2000). Frankfurt critical theory takes on a Marxian critique of ideology and in particular the critiques of political economy and capitalism, with an agenda to emancipate individuals from the “fettters of consumer capitalism to help make possible a free, more democratic and human culture and society” (Kellner, 2003, p. 53). A key aspect of this emancipation is the interrogation of concepts of domination. Agger (1991) describes domination in Frankfurt terminology as:

A combination of external exploitation (e.g. the extraction of workers’ surplus value – explored exhaustively in *Capital*) and internal self-disciplining that allows external exploitation to go unchecked. In sociology terms, people internalise certain values and norms that induce them to participate effectively in the division of production and reproductive labour, [and] ...keep their noses to the grindstone, have families, and engage in busy consumerism. (p. 108)

What Agger (1991) is illuminating here is the insidious nature of life defined by domination. People begin to believe that exploitation and domination are the natural order and, therefore, appear incapable of resistance. A complementary concept, which developed alongside the Frankfurt idea of domination, was Antonio Gramsci’s notion of hegemony. Kincheloe (2008) suggests hegemony is concerned with how dominant power in society is maintained by gaining peoples’ consent to domination through social and psychological means, such as educational and religious institutions and media, rather than just by coercive force. The hegemonic processes of exploitative capitalist systems, which entrench inequality, are difficult for people to overcome.

Whilst recognising historical conceptual contributions, it is important to acknowledge that critical theory is difficult to define because it has multiple strands, which continue to develop through dialogue, debate, and the influence of contemporary exponents such as Jurgen

Habermas (Kincheloe, 2008; Rush, 2004). Kellner (2003) and Morrow & Brown (1994) suggest that, although critical theories have situated themselves across different academic disciplines and are diverse in nature, they do have some “unitary” features. These are captured by a core message which is concerned with issues of social injustices, power inequalities, and domination within society and the roles of transformation and emancipation in addressing these social conditions (see Heilman, 2003; Martin, 1999; Payne, 2002; Rush, 2004). Fleming (1997) suggests a distinguishing feature of critical theory is its practical intent. It is not content merely with deconstruction or critique as Fleming insightfully states “we cannot avoid the question, critique in the name of what?” (p. 33) This is a contested position, with critics such as Payne (2002) suggesting critical theories are strong on critique yet weak at effecting change, thus contributing to a rhetoric-reality gap. This is an important consideration for this research thesis, which is committed to a practical and transformational ethic along with a desire to challenge and critique the status quo of outdoor education in New Zealand.

Understanding the nature of multiple critical theories can be enhanced through an examination of the influence of both modern and postmodern thought. We live in a time of contested social conditions characterised by late-modernity, late-capitalism, postmodernity or a combination of these, depending upon who you read. Whilst the roots of Frankfurt critical theory were built on modernist assumptions, postmodern critical thought can be considered an assault on modernist Enlightenment ideals of rationality, universalism, and the emancipated autonomous individual. This inevitably led to critique of the essentialising and reductive nature of Marxist inspired critical thought as elaborated here by Best and Kellner (1997),

As discussed by Foucault, various theorists and activists rejected the hegemony of Marxism as rooted in a totalising and essentialising logic that subsumed all forms of oppression and resistance to the fulcrum of labour and exploitation. It became widely understood that power had numerous other sources and strategies, working not only in factories but in schools, hospitals, prisons, and throughout cultural and everyday life. (p. 10)

This critique, and in some ways rejection, of Enlightenment ideals and Marxist dialectical materialism by new French philosophy, can be seen in the evolving thought of Frankfurt School critical theorists, such as Adorno and Marcuse, as well as postmodern and poststructuralist thinkers. These critical theorists increasingly viewed society in terms of difference, multiplicity and fragmentation rather than in terms of dialectics and totality (Peters et al., 1996). They also began to identify alliances between domination and instrumental rationality associated with

Enlightenment thinking. The shift towards more postmodern critical theories has attempted to capture the voice of those excluded by the reductive and totalising nature of Marxist theory. As Fleming (1997) articulates, the “disinherited of modernity – variously defined as women, Blacks, gays, lesbians, native peoples, prisoners – find their aspirations reflected in the increasing number of postmodern theories heavily influenced by genealogy and deconstruction” (p. 31). At this point it is useful to consider in further depth, contributions that postmodern critical thought can make to the theoretical conceptualisation of eco-justice and sustainability.

Postmodern Critical Social Theories

A complete examination of the philosophical, epistemological, and pragmatic considerations of modernism and postmodernism, and their associated volumes of literature, is beyond the scope of this thesis. In a concise overview of modern and postmodern theory, this section attempts to identify the characteristics of modern and postmodern thought followed by a brief examination of postmodern critical theories. Finally, a case is made for the adoption of a moderate, oppositional postmodern position which underpins the eco-justice and sustainability theoretical framework which anchors this research project.

In a useful description of terms associated with modern and postmodern concepts, Best and Kellner (1997) “distinguish between modernity and postmodernity as two different historical eras; between modernism and postmodernism as two conflicting aesthetic and cultural styles; and between modern and postmodern theories as two competing theoretical discourses” (p. 17). The emergence of modern theoretical perspectives came about in the social context of modernity, which was characterised by: movement from religious to secular world views, movement away from tradition, and a ‘social-institutional’ logic based on enlightenment ideals of change, progress, and the autonomous emancipated individual (Best & Kellner, 1997). The development of the modern paradigm, which took place over five centuries, was to have significant impact on epistemologies, ontology and the way society was organised. Best and Kellner (1997) summarise this in suggesting,

an overarching *modern paradigm* emerged in society, beginning perhaps in the 15th century and continuing strongly through the end of the 19th century, organised around mechanical metaphors, deterministic logic, critical reason, individualism and humanistic ideals, a search for universal truths and values, attempts to construct unifying and comprehensive schemes of knowledge, and optimistic beliefs in progress and the movement of history toward a state of human emancipation. (p. 18)

Giroux (1988) suggests modern discourses draw almost exclusively from European models of culture, dictated largely by white males, and are synonymous with scientific and technological progress, the industrial logic of human labour, and human domination over nature. He elaborates on the foundations of the modern paradigm by suggesting, “a faith in rationality, science, and technology, buttresses the modernist belief in permanent change, and in the continual and progressive unfolding of history” (Giroux, 1988, p. 5). Consequently, modern thought embraced concepts of certainty, rationality, universal truths, and grand narratives, which developed in parallel with the social, political and economic conditions of industrialism and global capitalism (Best & Kellner, 1997). According to Sale (1995), industrialism and its associated phenomena, such as commodification, mass-media, and technology, lie at the heart of the modern experience. Sale consequently offers a critique of modern industrial technology which can provide insight into possible ramifications of the modern project, suggesting,

Whatever it's presumed benefits . . . industrial technology comes at a price, and in the contemporary world that price is ever rising and ever threatening. Indeed, in-as-much as industrialism is inevitably and inherently disregardful of the collective human fate and of the earth from which it extracts all its wealth . . . it seems ever more certain to end in paroxysms of economic inequity and social upheaval, if not in the degradation and exhaustion of the biosphere itself. (p. 21)

Sale highlights here the environmental, socio-cultural, and economic consequences of technological progress associated with modernity, inferring that the modern project has in some ways led to unjust and unsustainable outcomes. Addressing these issues has been the concern and domain of critical theory for the last 80 years. However, as discussed in the previous section, modernist critical theories such as Marxism maintain an essentialist, reductive tone which preserves grand-narratives, marginalises local and specific contexts, discounts difference and diversity, and fails to address ecological issues. Also of concern, according to Bowers (2001b; 2003a; 2006), is the embedded nature of deep cultural assumptions, such as individualism, anthropocentrism, and linear progress, which underlie both modern capitalist system and the modernist critical traditions. It is from this angle that postmodern critique of the modern project becomes a useful theoretical perspective.

Postmodernism is a Western discourse, according to Best and Kellner (1997), which developed in the social movements of the 1960s and 1970s, particularly in France and later in the USA. This development emerged from two thought positions; the realisation that there were

multiple forms of power and domination which therefore required diverse forms of struggle and resistance, and from a perceived failure of Marxism to deliver the type of social, political and economic changed it had promised. Best and Kellner (1997) elaborate on this, suggesting “the first versions of French postmodernism were marked by the failures of Marxism and contain a conflicted matrix of clearly anti-Marxian features with a transcoding of other Marxian ideas into inventive and hybrid theoretical discourses” (p. 6). An example of this, according to Agger (1991), is Foucault, who was influenced by Marxism but rejected the simple dualities of class based analysis of social, economic and political systems.

Emerging from the philosophies of Heidegger and Nietzsche, postmodernism was an assault on Enlightenment rationality and attempts to create a universal knowledge (Agger, 1991; Best & Kellner, 1997; Giroux, 1988). This discomfort with ‘one-size-fits-all’ master narratives is a central feature of postmodernism and postmodern theory as summarised below by Agger (1991).

A postmodern social theory would examine the social world from the multiple perspectives of class, race, gender and other identifying group affiliations. At the same time this social, theory would refuse the totalizing claims of grand narratives like Marxism that attempt to identify axial structural principles explaining all manner of disparate social phenomena. (p. 116)

Although Agger (1991) identifies Marxism as a grand narrative to be rejected by postmodernists this debate is not closed. Jameson (1991) argues from a neo-Marxist perspective that postmodernism corresponds to the cultural logic of late capitalism which he termed the most pure form of capitalism yet to emerge. He suggests that within late or consumer capitalism there was a need for cultural norms to exist in order to appreciate difference and, therefore, attempted to preserve Marxism as a master-narrative. Callinicos (1989) describes Jameson’s attempts to historically contextualise postmodernity as brilliant, along with his skilful interweaving of the universal and the particular. A key point here is that a postmodern position can critique the modern project while adhering to and advocating a form of consumer capitalism which endorses injustice, inequality, exploitation and domination. Therefore, for postmodern social theories to contribute to theoretical conceptualisations of eco-justice and sustainability, there must be a cognisance of the warnings provided by Jameson and Callinicos and a direct attempt to uncover and expose multiple injustices.

It is also important to acknowledge that there is no singular postmodern theory. Best and Kellner (1997) argue there are a diversity of postmodern theories, suggesting “the domain of the postmodern is itself a contested terrain, and there are a variety of positions, often contrasting, that present themselves as constituting a postmodern split from modern theory” (p.11). Despite the postmodern being a complex and diverse set of ideas, Best and Kellner (1997, pp. 255-257) suggest there are four similar themes that operate across different disciplines and positions. First, through embracing a multiplicity of cultural voices “postmodernists reject unifying, totalising, and universal schemes in favour of new emphases on difference, plurality, fragmentation, and complexity.” Second, postmodernists resist rigid order, fixed meaning and closed structure, preferring incompleteness, ambiguity, uncertainty, and contingency. (It should be noted, however, that oppositional postmodernists still often embrace forms of normative standards in their work). Third, postmodernism influences ontology and epistemology in ways that “abandon naive realism and representational epistemology, as well as unmediated objectivity and truth in favour of perspectivism, anti-foundationalism, hermeneutics, intertextuality, simulation, and relativism.” Fourth, postmodernism attempts to deconstruct boundaries within and across different disciplines.

According to Best and Kellner (1997), there are a number of different positions within postmodern theory, two of which are considered here. Extreme or strong postmodern theory places the emphasis very much on the *post*, positing a fundamental dis-juncture between modern and postmodern theories, practices, and epochs. This is elaborated by Best & Kellner (1997) who suggest, “strong postmodernists . . . totally reject the theories, discourses and politics of the past modern era [and] tend to engage in polemical assaults on modernity, modern theory and politics, and they often fervently champion postmodern discourse, rhetoric and style” (p.24). This abandonment of truth, objectivity, and meaning in favour of an ultra-scepticism and relativism by extreme postmodern theorists is not shared by moderate postmodernists who instead, seek to provide a new normative foundation for social and cultural critique (Best & Kellner, 1997). Moderate postmodern theory places emphasis on the *modern*, with an interpretation of postmodernity as a shift within modernity or a mutation of the modern. This is elaborated by Best & Kellner (1997) who suggest “moderate postmodern theorists like Lyotard (sometimes), Foucault, Laclau, Mouffe, Harvey, Rorty, and others combine modern and postmodern discourses and interpret the postmodern primarily as a modality of the modern rather than as its radical other” (p. 25). This perspective enables theorists and researchers to draw on tools and resources from both modern and postmodern traditions to

critique and transform, or deconstruct and reconstruct contemporary and historical social, cultural, economic and political systems and experiences. Moderate postmodernism is also cautious of abandoning some of the core features of modern theory such as concern for truth, ethics and normative critique. In this sense it is commensurate with oppositional postmodernism as a form of social critique and resistance as described below by Best and Kellner (1997).

An oppositional postmodernism ...is a product of new social movements and the impulse to oppose and resist existing society. Oppositional postmodernism strongly opposes the established society and culture and seeks new forms of critique and opposition.

Distancing itself from modern theory and politics, oppositional postmodernism seeks new forms of resistance, struggle and social change. In this sense it is continuous with modernism in its seriousness and commitment to critique, struggle and opposition. (p. 26)

An apparent silence within some postmodern theoretical positions is the recognition and inclusion of environmental and ecological contexts within the critical justice debate. Best & Kellner (1997) suggested that in an anthropocentric way, most postmodern theorists have neglected to develop an ecological perspective or address issues of how human society and cultures (particularly Western) are contributing to the exploitation and degradation of natural environments. Attempting to address this gap Best & Kellner (1997) promote a postmodern ecological perspective, grounded by scepticism of meta-narratives, which is critical of modern views of progress that are largely based on an assumption of cheap, obtainable, and infinite or never-ending resources. They argue for an increased presence of ecological perspectives alongside critical social theory, stating,

The shift from the modern belief in inexhaustible resources – which remains the dominant view of the advanced industrial world and continues to seduce the developing world – to the postmodern realisation of scarcity and finitude allows for a new ethic of conservation, a new appreciation of ecology, a critique of consumerism, and a new vision of sustainable societies and consumption habits that are ecologically sound . (p. 256)

Drawing from the above ideas of Best and Kellner, this thesis is informed by a moderate and oppositional postmodernism, which recognises the diversity and complexity of ecological relationships and lived experiences in a postmodern world, while avoiding the wholesale rejection of ethics and normative truths that the modern project brings to the table. Furthermore, this position underpins an eco-justice and sustainability theoretical position, which seeks to provide a framework for living and educating towards a sustainable future, while

avoiding an essentialised one-size-fits-all grand narrative. More explanation of this position will be provided in the conclusion to this chapter. As the nature of this project is concerned with education, it is important to examine the contribution from critical perspectives in education, particularly critical pedagogy.

Critical Pedagogy

The dominant critical perspectives in education, according to Gruenewald (2003a), include critical pedagogies which evolved from the established Marxist or neo-Marxist tradition of critical theory. Although critical pedagogies can be diverse in nature and conception, Biesta (1998) and Heilman (2003) suggest they do have common ground which can be identified. According to Kincheloe (2008, pp. 6-11) the central characteristics of critical pedagogy are that it; is “grounded on a social and educational vision of justice and equality”, “is constructed on the belief that education is inherently political”, and “is dedicated to the alleviation of human suffering”. This is supported by Biesta (1998), who suggests, “critical pedagogies are in one way or another committed to the imperative of transforming the larger social order in the interests of justice, equality, democracy and human freedom” (p. 499). Heilman (2003) maintains that critical theorists within education believe that capitalist free market rationalities are “a dubious source of inspiration for democratic education” (p. 247), and that a critical education should be committed to democracy, diversity and social justice.

Critical pedagogy, as it is most well known today, emerged from the work of Paulo Freire (Kincheloe, 2008; P. Roberts, 2003). A prolific writer and publisher of article and books, “Freire was, in short, a complex thinker who defied easy categorisation . . . [and who] drew, over the years, on a range of modernist intellectual traditions (liberalism, Marxism, existentialism, phenomenology, and radical Catholicism, among others) as well as some elements of postmodern theory” (P. Roberts, 2003, p. 463). In the spirit of what P. Roberts would call, careful and critical re-examination of Freire’s work, I acknowledge his significant contribution to social justice discourses, rather than attempting a comprehensive critical examination of his writing about educational reform.

The central feature of Freire’s work is his commitment to a just society and concern for the relationship between education, oppression (particularly class-based oppression), and liberation (P. Roberts, 2003; Rozas, 2007). The concept of liberation took form in the actions of people, engaged and working together in socially dynamic ways, to overcome oppression in their particular context (Kincheloe, 2008). Underpinning the struggle for liberation and the fight

against oppression, Freire (1972) always maintained a critical hope that humans could succeed in becoming more fully human and restoring the humanity of both the oppressed and oppressors. Central to this pedagogy of liberation is the concept of '*conscientizacao*' (conscientization) (p. 21), or development of a critical consciousness, which involves 'reading the world' to recognise the social, cultural, political, and economic contradictions and forces that contribute to oppression and to take action against them. According to Kincheloe (2008), critical consciousness is elusive because the oppressed are often blinded to the myths of dominant power, producing a distorted view of themselves, in a process akin to Gramsci's notion of hegemony or the Frankfurt school's domination.

Although Freire's most well known and seminal work is *Pedagogy of the Oppressed* (Freire, 1972), for this research it is important to have an understanding of his later works and the evolution of his thought. According to P. Roberts (2003), Freire's ideas, whilst maintaining a largely modernist epistemology and ontology, began to incorporate aspects of postmodern theory in a response to critiques of his work as overly totalising and essentialist. Of particular concern to postmodern and feminist critics was the abstract and universalist ways in which Freire used the terms 'oppressed' and 'oppressor'. In later works therefore, Freire saw the importance of acknowledging multiplicity of modes of oppressions and sought to "dispel any notion that 'oppression' and 'liberation' could be adequately understood in simplistic binary terms" (P. Roberts, 2003, p. 457). From the incorporation of postmodern theory, Freire argued for a 'progressive postmodern' position which embraced dialectical thinking. P. Roberts (2003) suggests this is illustrated in Freire's view that although there are contextually different and distinctive forms of oppression and localised contexts for the struggle for liberation, common features of oppression which transcend situational contexts can be embraced in an overriding vision of liberation. Underpinning this was Freire's belief that "the local and the specific only make sense in relation to some larger conception of oppression and liberation" (P. Roberts, 2003, p. 458). A further criticism of Freire's work, according to Bowers and Apffel-Marglin (2005), is its anthropocentric or human centred world view, along with a valuing of high status Western forms of knowledge over localised and often indigenous forms of knowledge. Bowers (2001b; 2003a) suggests that the same cultural assumptions, which developed from modernist Enlightenment thinking and contribute to Western social and environmental exploitation and degradation, are also implicit in the radical change advocated by Freire.

Here the basis of Bowers' (2003a) critique is that the environmental crisis must be given equal importance in critical educational reform with social justice issues. He also warns against

universalising the cultural values and assumptions of resource rich nations, such as the USA, to resource poor nations, suggesting these very assumptions are at the root of the social and environmental problems that the planet now faces. Whilst Bower's ideas on eco-justice pedagogy will be further explored in the next section, at this point it is important not to criticise Freire's writings unfairly for failing to acknowledge the importance of place and ecological relationships. It must be remembered that his work with the poor and 'oppressed' of Brazil, and subsequent global influence on critical education reform in the name of social justice, is significant and should not be undervalued. In attempting to make positive change in his world, Freire never promoted himself as an environmentalist or champion of ecological justice, and to judge him on those grounds is to lose sight of his true message. Consequently, it is important to acknowledge the contribution of Freire's work in the theoretical conceptualisation of eco-justice and sustainability used in this thesis. Indeed, it seems improper to write about educating towards a just and sustainable future without making reference to Freire.

Freire's thinking, writing, and personal relationships with critical educators and academics, such as Giroux, Kincheloe, and McLaren, had significant impact on the development of the field of critical pedagogy. Since Giroux (1983) linked Freire's ideas with the tradition of critical theory in his work *Theory and Resistance in Education*, he has remained committed to the legacy of Paulo Freire and the struggle to re-create concepts of a radical democracy through radical pedagogy. Like Freire, Giroux's thoughts on critical pedagogy drew on the strengths of both modern and postmodern theory, thus avoiding a binary polemic of choosing between either modern or postmodern. Specifically, he advocated for retention of modernist ideals of agency and reason while recognising the broad cultural complexities of a postmodern world. Giroux (1988) argues "that in order to develop a more adequate theory of schooling as a form of cultural politics it is important that contemporary educators integrate the central theoretical features of a postmodernism of resistance with the more radical elements of modernist discourses" (p. 7). In a more recent afterword in Giroux's (2001) book, *Public spaces, private lives: beyond the culture of cynicism*, Kellner (2001) clarifies and endorses Giroux's willingness to critically engage with both modern and postmodern perspectives, stating,

Avoiding extreme and problematic versions of the postmodern turn, Giroux was able to develop radical critiques of modern theory, pedagogy, and politics, while providing reconstructive alternatives that draw on both modern and postmodern traditions....

Thus, while an extreme postmodern valorisation of difference would erase all universals, commonalities, and shared identities, Giroux deploys a dialectic of identity and

difference that sees the complexity and multiplicity of social identities and the possibility for producing more democratic and just subjectivities, discourses, and practices. (p. 158)

Consequently, Giroux (2003) worked to place pedagogy within the realm of politics and resistance, which resulted in him advocating for a radical pedagogy to resist the neo-liberal agenda within education⁵. A radical pedagogy perspective views education as a vehicle for social transformation through an expansive struggle for radical democracy and social justice. This involved equipping students with the skills and knowledge they need to think critically and take social action, whilst encouraging educators to critique the very educational institutions within which they find themselves (Giroux, 2003). Like Giroux, other critical theorists in education have adopted positions which seem to combine aspects of modern and postmodern theory. Kellner (2003) suggests that “to democratize and reconstruct education, one can combine modern and postmodern perspectives, theory and practice” (p. 58). Kincheloe (2007; 2008) advocates an evolving criticality which is contextual to the ever changing and diverse social conditions of late twentieth century and early twenty-first century cultures. This position embraces multiple ways of knowing and seeing the world and a critique of narrow rational inquiry, as stated by Kincheloe (2008),

An evolving critical pedagogy seeks to decolonize research, knowledge production, and, of course, education in this imperial context. The future of knowledge production in this decolonized context will not constitute a new universalism of final truth, but it will be worldly in the sense that it will multilogically draw on insights from divergent domains around the planet. (p. 147)

The critical pedagogy perspectives of Giroux, Kellner, and Kincheloe, briefly described above, reveal a moderate-oppositional postmodern position which is commensurate with the theoretical conceptualisation of eco-justice and sustainability used in this thesis. They do not, however, recognise the ecological places and systems which work with socio-cultural institutions to contextualise radical or critical pedagogies. In an insightful critique, Furman and Gruenewald (2004) point out that social justice discourses in education are limited because they have focused on human relationships while failing to acknowledge ecological relationships. This anthropocentric orientation reinforces Western Enlightenment cultural patterns and assumptions such as hyper-consumerism, economic growth and progress, and individualism

⁵ How neo-liberal agendas have influenced education internationally and in New Zealand are discussed in more detail in Chapter 3.

(Furman & Gruenewald, 2004). They suggest that understandings of social justice need to be embedded in an ecological framework in order to address issues of environmental crisis and social crisis, which they view as inseparable. In this sense Furman and Gruenewald (2004) advocate that “students and educators everywhere, in unique geographical and cultural locations, must become culturally and ecologically conscious citizens capable of caring for and contributing to the well-being of others, human and nonhuman” (p. 54).

Within the critical pedagogy field, McLaren and Houston (2004) have attempted to address the issue of environmental and ecological injustice from a Marxist perspective with the publication of *Revolutionary Ecologies: Ecosocialism and Critical Pedagogy*. This work acknowledged that critical pedagogy had failed to embrace a conscious ecological dimension and McLaren and Houston (2004) argued that “radical pedagogy grounded in Freireian and Marxist traditions, with its already well developed critique of exploitative economic conditions, provides a rich theoretical landscape to address issues of ecological and environmental justice in educational theory and practice” (p. 29). Whilst recognising McLaren and Houston’s response to the ecological silence of critical pedagogy, the extent to which modern Marxist-based ecosocialism informs theoretical conceptualisations of eco-justice and sustainability in this thesis is limited. Although capitalist models of production and consumption are contributing to our current environmental crisis, addressing the issues associated with this crisis through a Marxist materialist lens seems reductionist. Such a reductionist approach works to deny the diversity and complexity of ecological relationships between human and non-human nature whilst promoting a solution which is based in challenging and transforming economic systems and contexts. This approach, as Bowers (2005) suggests, fails to interrogate some of the core assumptions that lie at the nexus of socio-cultural, economic, and environmental realms.

This section has recognised the contribution that critical pedagogy makes to theoretical conceptualisation of eco-justice and sustainability. It has also highlighted the limitations of critical pedagogies to serve as a holistic theory for educational reform. At this point, therefore, it is useful to consider a variety of critical ecological perspectives which inform and influence an eco-justice and sustainability theoretical framework.

Critical Ecological Theories

The purpose of this section is to explore critical ecological theories that seek to address issues of sustainable ecological relationships between human and non-human nature in the context of global ecological crisis. This overview considers eco-justice pedagogy (Bowers, 2001b,

2001d) which is supported and supplemented by the concepts of pedagogy of responsibility (Martusewicz & Edmundson, 2005), critical pedagogy of place (Gruenewald, 2003a), and critical outdoor education (Martin, 1999). Theories and concepts of sustainability will be covered in the next section, and it must be recognised there are numerous other ecological theoretical perspectives, such as eco-socialism, eco-psychology, and deep ecology that contribute to the critical ecological perspectives but sit outside the theoretical framework developed for this thesis.

A key contribution to critical social and ecological theory within education has been made through Bowers' (1995; 1997; 2001a; 2001b; 2001c; 2001d; 2006) conceptualisation of eco-justice pedagogy. Bowers has argued for the holistic inclusion of both ecological and social justice in curriculum and pedagogy and in doing so he has often been a harsh critic of both critical pedagogy and environmental education. This has inevitably led to criticism and debate, most notably from critical pedagogy theorists Houston and McLaren (2005), who label Bowers' work as reactionary. It is the intention of this section to bypass the polemical and often heated debate between critical pedagogues, especially McLaren and Bowers, and consider the contribution of eco-justice pedagogy to an eco-justice and sustainability theoretical framework. Two central themes of Bowers' (2001b) eco-justice pedagogy, which are relevant to this framework, will be expanded upon. First, the examination of relationships between ecological and cultural systems, in particular the deep cultural assumptions and root metaphors that underpin Western cultural patterns of thinking and behaving. Second, how revitalising and recapturing non-commodified traditions and ways of living in sustainable local communities contribute to educating toward a sustainable future.

Bowers (2001b) is concerned with identifying and interrogating key cultural assumptions, such as patriarchy, colonialism (replaced by globalism), individualism, linear progress, evolution, mechanisation, and anthropocentrism, which co-evolved with the Industrial revolution. He suggests these assumptions are central to modern Enlightenment based ideology and provide a cultural foundation for thought and practice in Western society and education as well as contributing to the current global ecological crisis. Drawing on the work of Nietzsche (1968) and Heidegger (1962), Bowers (2001c; 2001d) discusses the metaphorical nature of language suggesting that language carries forward dominant metaphorical cultural constructions or root metaphors that influence the way individuals think and act. According to Bowers (2001d), root metaphors "are the 'meta-schemata' that frame the process of analogic thinking across a wide range of cultural experiences" (p. 403). Using this theoretical perspective he challenges the

assumption that autonomous individuals only need to exercise rational thought to reach conclusions about society. Bowers (2001b, 2001d) argues that cultural thought and practice are grounded on root metaphors which reproduce dominant forms of cultural intelligence and moral norms. These root metaphors become taken-for-granted deep cultural assumptions, which according to Bowers, authenticate unsustainable, exploitative, and unjust cultural practices that contribute to social inequality and degradation of the Earth's natural systems. These cultural practices are not just the domain of corporations and institutions, but are the basis of modern, progressive, hyper-consumer lifestyles. The cultural assumptions of individualism, linear progress and anthropocentrism will now be explored in more detail.

Individualism reflects the Enlightenment ideal of the autonomous, independent and self-reliant individual and according to Soanes and Stevenson (2006), is a social theory that favours freedom of action for individuals over collective or state control. Bowers (2001b) suggests individualism frames the individual as the basic social unit in society, freeing people from the constraints of community norms and responsibilities, therefore undermining morally coherent communities. Sale (1995) illustrates how individualism disrupted communities in the historical context of the Industrial Revolution, stating,

All that "community" implies – self-sufficiency, mutual aid, morality in the marketplace, stubborn tradition, regulation by custom, organic knowledge rather than mechanistic science – had to be steadily and systematically disrupted and displaced. All of the practices that kept the individual from being a consumer had to be done away with so that the cogs and wheels of an unfettered machine called "the economy" could operate without interference. (p.38)

Here Sale makes connections between individualism and the essence of the industrial, free-market, capitalist ideology. From Bowers' perspective, any critique of that capitalist ideology must begin with the interrogation of cultural assumptions such as individualism.

The idea of linear progress is manifest in the idea that change moves in a linear, progressive direction and assumes that all change is good, which equates change with progress. Bowers (2001b) suggests linear progress is fundamental to neo-liberal economic globalisation and promotes a Western model of production and consumption and unimpeded growth, which has undermined sustainable thinking, attitudes and practices in localised communities. A further consequence of the assumptions associated with linear progress is the view that all technological innovation and change is positive, progressive, and inherently good. Bowers (2001a) argues that technology should not be viewed in the binary terms of either good or bad, but instead

advocates a critical inquiry into the appropriateness of technology. This involves asking questions as to whether a particular technology is necessary or unnecessary and examining how it weakens or strengthens the viability of families, communities and local environments.

Anthropocentrism is a root metaphor that perhaps most significantly underpins the current environmental crisis. It is an assumption based in a human chauvinism that places humans as the “crown of creation”, as above or separate from nature (Seed, 1985) and leads to a perception of human authority and control over nature which often leads to exploitation and irresponsible behaviour (Cronon, 1995). Seed (1985) suggests anthropocentrism is deeply embedded in Western culture and consciousness. Bowers (2003) supports this notion, arguing there is a “widely held view that humans can impose their will on the environment and that when the environment breaks down experts using an instrumentally based critical reflection will engineer a synthetic replacement” (p. 15). The anthropocentric perspective described here, fails to take account of how “humans are nested in cultures and cultures are nested in and dependent upon natural systems” (Bowers, 2003a, p. 15). A shift towards a more ecological or eco-centric way of thinking is part of addressing the environmental issues associated with anthropocentrism. This is, however, not a simplistic task. There is a need to recognise potential problems with valorising eco-centric perspectives and find a pragmatic position which takes into account human inter-relatedness with non-human nature while recognising that humans, like all creatures will have an impact on the world. The key here is to recognise what human impacts or interventions are appropriate and contribute to the continued well-being of our planet and associated ecosystems. Best & Kellner (1997) provide an insightful reminder of the problems associated with eco-centric terms such as harmony with nature, which is worth quoting at length.

Phrases such as “harmony with nature” are vacuous and dangerous. If nature is evolving, running down, chaotic or indifferent, how does one seek harmony with it and what good would result? If nature inflicts a virus, famine or flood on the human world, should we do nothing but allow nature to “take its course”? While the basic idea here is sound – that nature has its own autonomy, which we must respect and adhere to insofar as the social world is inextricably embedded within natural ecosystems – not all human interventions in the natural world have negative effects, and, increasingly, the continued survival of many species and ecosystems today depends on rational and democratic human intervention.... There can be no “harmony with nature” as long as capitalism and its alienating effects mediate relations between nature and human beings. Our connection

to the natural world has to be understood as socially and historically mediated, and the *category* of nature itself must be seen as a historical construct, which is not to say that nature itself is nothing but a text. (p.268)

In the above quote, Best & Kellner highlight the complexity associated with examining environmental issues and problematise constructs such as “harmony with nature” in light of capitalist societal systems. These capitalist systems are related to deep cultural assumptions which reinforce and replicate patterns of thought and behaviour that are ecologically and socially unsustainable and unjust. Through eco-justice pedagogy, Bowers (2001d) challenges capitalist root metaphors and associated totalising grand-narratives while advocating for a pedagogy and curriculum which engages students in learning to live in socially and ecologically sustainable ways. The essence of Bowers (2001a) argument here revolves around the idea that current Western capitalist economic systems of production and consumption are high in both resource use and waste production thus creating a greater impact on the environment. He is also aware of the social inequity and poverty that accompanies such a system. By contrast, Bowers (2001b) argues that eco-justice pedagogy helps communities to be more socially and environmentally responsible through “the recovery of the capacity of different cultural groups to sustain traditions that contribute to self-sufficiency, mutual support, and . . . skills that make dependence on consumerism less necessary” (p. 7).

The process of reducing consumerism and enabling sustainable local communities in today’s complex and diverse world, while avoiding the creation and propagation of yet another totalising grand-narrative, is no easy task. The role that education plays in this task is crucially important as outlined in the works of Martusewicz and Edmundson (2005). They draw upon, support and expand Bowers (2001a) concepts of eco-justice pedagogy into the realm of ethical responsibilities with their conceptualisation of ‘pedagogy of responsibility’. Martusewicz and Edmundson (2005) promote an eco-ethical consciousness as a mode of living and being, which involves the development of attitudes, languages and practices that are “oriented toward the protection of life systems supporting diverse human cultures” (p. 72). A pedagogy of responsibility expands social justice theory and pedagogy into the ecological realm, as described further by Martusewicz and Edmundson

Developing a social justice awareness is insufficient to respond to the onrushing ecological crisis, because it fails to challenge the ways of thinking that reproduce that crisis. Instead an eco-justice approach incorporates social justice while recognising the need for ecological sanity. A pedagogy of responsibility can help new generations of

teachers challenge the even deeper structures of modern assumptions that degrade tradition, community, and environment. (p. 88)

Eco-justice pedagogy and a 'pedagogy of responsibility' contribute to an eco-justice and sustainability theoretical framework through providing a pragmatic and education focused expression of the dual aims of critical research; those of critique and bringing about transformative change. Further explanation of these links will be provided in the conclusion to this chapter, which ties together and synthesises the theoretical conceptualisation of this framework. Presently it is important to consider the theoretical contribution of critical place-based educative approaches to this eco-justice and sustainability theoretical framework.

Place-based pedagogies have developed with significant contributions from authors such as Orr (2004), Sobel (1996), Gruenewald (2003a; 2003b), and Smith (2008; 2002) and are being increasingly incorporated into outdoor education theory and practice (see Brown, 2008b; Payne & Wattchow, 2008; Wattchow, 2008; Wattchow & Brown, 2011). The concept of place has been subject to theorisation, debate, and discussion over the past four decades, which is well documented by Wattchow and Brown (2011, pp. 51-76). Whilst an exhaustive engagement with this literature is beyond the scope of this thesis it is useful to briefly explore the concept of place. Wattchow and Brown (2011, p. xxi) state that "place is suggestive of both the imaginative and physical reality of a location and its people, and how the two interact and change each other". This conceptualisation of place is useful to this thesis in that it recognises the interwoven nature of people and environments as expressions of place. However, the use of the concept of place within educative contexts is not unproblematic. Nespor (2008) problematises how 'place' might be defined in place-based education suggesting it can lead to unhelpful distinctions or dichotomies such as local/global or urban/rural. Nespor also questions silences on class, gender, ethnicity and other forms of difference within place-based education approaches. The broad theoretical approach taken in this chapter attempts to circumvent some of these issues highlighted by Nespor.

Like other pedagogies and educational theory there is no singular, essentialised version of place-based or place-conscious education. However, Gruenewald and Smith (2008) provide a broad insight into place-based approaches suggesting,

place-based education can be understood as a community-based effort to reconnect the process of education, enculturation, and human development to the well-being of

community life. Place-based or place-conscious education introduces children and youth to the skills and dispositions needed to regenerate and sustain communities. (p. xvi)

Gruenewald (2003) draws on place-based educational theory along with critical pedagogy in the development of a critical pedagogy of place which seeks to locate eco-justice and sustainability concepts within a wider body of literature. Critical pedagogy of place (Gruenewald, 2003a) is a theoretical construct which addresses issues of social and ecological justice through a synthesis of Freireian critical pedagogy and place-based education. A key assumption which underpins a critical pedagogy of place is that human communities are socially constructed places where individuals, groups and ecosystems are often marginalised by dominant discourses within society. Critical pedagogy of place seeks to provide an alternative or competing discourse to those which directly or indirectly promote exploitive or degrading relationships with human and non-human nature. Gruenewald (2003a) elaborates on this, stating:

Critical pedagogy of place aims to evaluate the appropriateness of our relationships to each other, and to our socio-ecological places. Moreover, a critical pedagogy of place ultimately encourages teachers and students to reinhabit their places, that is, to pursue the kind of social action that improves the social and ecological life of places, near and far, now and in the future. (p. 7)

According to Gruenewald (2003a), critical pedagogy of place is characterised by two broad objectives; decolonization and reinhabitation. Decolonisation is the process of recognising, resisting and acting against dominant societal assumptions, ideologies, and practices that contribute to cultural disruption and injury. I believe decolonisation, as Gruenewald (2003a) describes it, fits well with Bowers' challenge of deep cultural assumptions. It is possible to draw links between ecological and cultural disruption and injury, identified through decolonisation, and the root metaphors that underpin modernist Western patterns of thinking and behaviour. Reinhabitation involves "learning to live-in-place in an area that has been disrupted and injured through past exploitation" (Berg & Dasman, cited in Gruenewald, 2003a, p. 9), or "re-educating people in the art of living well where they are" (Orr, cited in Gruenewald, 2003a, p. 9). I believe the concepts of decolonisation and reinhabitation associated with a critical pedagogy of place make a significant contribution to the eco-justice and sustainability theoretical framework which underpins this thesis. These concepts are commensurate with ideas of sustainable living in self-reliant communities based on codes of moral reciprocity and mutual support. Concepts of appreciation for and connection to place are

also highly applicable to outdoor education contexts as revealed in subsequent chapters of this thesis.

Critical pedagogy of place has, however, been subject to critique and debate. Bowers (2008) provided criticism of critical pedagogy of place, suggesting it was an oxymoron which perpetuated thinking, language and silences that undermine the planet's cultures and ecosystems. As an alternative he argued that a recapture and revitalisation of the cultural commons as a site of resistance to hyper-consumer lifestyles must be a central theme of progressive and just education. Bowers (2008) describes these cultural commons as: "intergenerational knowledge, skills and systems of mutual support, . . . creative arts, ceremonies, civil liberties and systems of reintegration into community, craft knowledge and so forth" (p. 331). I do not wish to dwell too long on Bowers' critique, except to suggest it was overly harsh, unfair, and probably had more to do with Bowers' dislike for, and battle with, critical pedagogues. In his rejoinder to Bowers, Greenwood (formerly Gruenewald) (2008), graciously accepted some of Bowers' thoughts in suggesting that "all of Bowers' recommendations for a commons-based education should be included in the theoretical scope of critical place-based education, ecopedagogy, environmental education, education for sustainability, or whatever people choose to call this work" (p.340). However, Greenwood (2008) rejected commons-based education as a meta-framework for socio-ecological learning whilst suggesting his and Bowers' work could be viewed as a parallax, that is, conceptualising the same concepts in different ways from different positions. In support, Smith (2008) suggested Bowers' criticisms were misplaced and that "Bowers and Gruenewald describe tasks and perspective that compliment more than contradict" (p.352). Stevenson (2008) also contributed to this debate, disagreeing with Bowers' position by suggesting the traditions of critical pedagogy, place-based education, and even environmental education can be juxtaposed to reveal a "pedagogical space for authentic environmental and cultural learning" (p. 353).

The pedagogical space referred to by Stevenson, has been explored in the environmental education context by critical Australian environmental educators such as Fein (1993) and Gough (1997; Gough & Robottom, 1993). Although a full synopsis of environmental education theory is beyond the scope of this chapter it is useful to consider how various critical theories have influenced the development of environmental education. These authors have contributed significantly to the conceptualisation of environmental education theory in ways which expand critical pedagogies to include the ecological, economic, cultural, and political. This holistic approach to the theorisation of environmental education has led to development of central

concepts such as critical thinking, environmental ethics, ecological literacy, and action competence. Despite Walker's (1997) challenges to critical theory's contribution to environmental education theory and practice, I believe the links made between critical pedagogies and environmental education strengthen the theoretical foundations of the field and provide examples for the re-theorisation of outdoor education.

Within an outdoor education context, Martin (1999) attempted to incorporate concepts of critical theory through the conceptualisation of critical outdoor education. Lugg (2004) has suggested that critical outdoor education provides a paradigm for outdoor education theory and practice by drawing on critical theory. This concept focuses its attention on humanity's relationship with nature as outlined by Martin (1999), who states, "critical outdoor education examines outdoor recreation beliefs and practices in terms of whether they maintain or resist the dominant historical human-nature relationship: one of exploitation" (p. 465). Critical outdoor education is based on an assumption that a primary role for outdoor education is to educate for environmentally sustainable living (Martin, 1999). It seeks to raise students' awareness of environmental issues and help them to critically examine taken for granted assumptions about their society and outdoor recreation. Martin (1999) expands on this, suggesting, "critical outdoor education goes to the bush, not just to recreate and have fun but to look back with a critical perspective at the contexts left behind, particularly to those sets of beliefs which help shape human-nature relationships" (p. 465).

Critical outdoor education, as proposed by Martin (1999), while offering a much needed critical alternative focus for outdoor education, has also undergone critique. Payne (2002) identifies shortcomings of the notion of critical outdoor education, suggesting it has distanced itself from traditional critical theory concerns of social justice and equity, has totalising tendencies that valorise eco-centrism, presents a rhetoric-reality gap in that theory is progressing more than practice, and still has individualised, conservative and often economically driven underpinnings or tendencies. In addition to these criticisms, Payne (2002) points out that many of the activities central to critical outdoor education have not received critical attention as to their social and ecological appropriateness. Lugg (2004) supports Payne in this criticism, suggesting,

It may be difficult to challenge individualistic, hegemonic social structures if we use outdoor adventure activities that (inadvertently) perpetuate those structures. If we accept that all educational endeavours are social constructions, and that educators have a moral responsibility (Martin, 1999), it seems important to be aware of the values that

underpin outdoor education activities and the educational implications of such values.
(p. 8)

In a sense what Payne (2002) and Lugg (2004) argue lies at the very heart of one of the research questions of this thesis. To what extent do the cultural assumptions of modernist Western society influence outdoor education theory and practice and how does this interact with a re-envisioned sustainable outdoor education? These are also important questions to consider within the conceptualisation of an eco-justice and sustainability theoretical perspective that seeks to contribute to outdoor education theory and practice. The strength of this perspective lies in its broad base of literature and theory from modern and postmodern critical social theories, critical pedagogy, critical ecological and place-based theories, and theories of sustainability. This chapter has so far delved into the reaches of most of these theoretical approaches, leaving concepts of sustainable development, strong and weak sustainability, and education for sustainability to be explored below.

Sustainability Theories

Concepts of sustainability are neither new nor universally agreed upon within the context of education. The historically constituted and contested nature of these constructs means it is important to clarify how they can contribute to a theoretical framework which is useful for critiquing and transforming outdoor education in New Zealand. This section explores sustainable development and corresponding economic theories of strong and weak sustainability, along with education for sustainability.

Sustainable development, according to Williams and Millington (2004) is a difficult concept to pin down with numerous, often competing or contradictory definitions. Rathzel and Uzzell (2009) suggest that over the last decade there have been more than 300 definitions used for the terms sustainability and sustainable development, however, the most common of these was published in the Brundtland Report (World Commission on Environment and Development, 1987), which defines sustainability as development that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (p. 8). Since the 1990s sustainable development has gathered widespread support with a majority of countries signing the United Nations Conference on Environment and Development (UNCED) Agenda 21 at the Rio summit in 1992 (Neumayer, 2003). In Aotearoa/New Zealand the words sustainable development and sustainability are widely used, but Sustainable Aotearoa New Zealand (SANZ) (2009) proposes there is still confusion surrounding these terms. This type of

semantic confusion has subjected sustainable development to extensive debate and critique, with Rathzel and Uzzell (2009) suggesting “sustainability and sustainable development have become highly contested concepts which have come to mean whatever we want them to mean” (p. 263). Chapman (2003) concurs with this view proposing that sustainable development has so many interpretations it is unable to address the reality of unsustainable societal thinking and behaviour. He critiques the language of sustainable development and sustainable growth suggesting terms such as growth and development are at the root cause of environmental degradation. Neumayer (2003) critiques the anthropocentric tone of sustainable development, in that it offers no intrinsic value to nature independent of human valuation inscribed by present and future generations. As noted in previous sections, the nature of language and how it conveys cultural assumptions, such as anthropocentrism, should be carefully considered (Bowers, 2001c; 2001d). This thesis, therefore, acknowledges the limitations and issues surrounding the language of sustainable development. These issues and limitations can be further understood through examining concepts of weak and strong sustainability.

Neumayer (2003) describes weak and strong sustainability as economic paradigms which stand in opposition to one another. According to Neumayer (2003) weak sustainability can be interpreted as an extension of neo-classical economics and is based on the idea that it is only the total stock of capital passed onto future generations that is important, not the form of this capital. This means that “it does not matter whether the current generation uses-up non renewable resources or dumps CO₂ into the atmosphere as long as enough machineries, roads and ports are built in compensation” (Neumayer, 2003, p. 1). This illustrates a key tenant of weak sustainability in that natural capital (for example, climate, topsoil, forests, and ecosystems) can be degraded as long as enough human-made capital can be exchanged for it. Weak sustainability is characterised by an inherent optimism (Neumayer, 2003; Williams & Millington, 2004) that humans will be able to overcome environmental problems through technological progress. This anthropocentric and technocentric position (Chapman, 2003) entrenches the view that there is no need to transform existing human-nature relationships or dominant paradigms of economic progress and development. For Williams and Millington (2004) weak sustainability is “much more about sustaining development, rather than sustaining environment, nature, ecosystems, or the Earth’s life support systems” (p. 102). Furthermore, according to Rathzel and Uzzell (2009) “neither weak sustainability nor its translation into weak environmental education will solve the immense [ecological] challenges we are facing” (p. 264).

Weak sustainability can be aligned with the triple-bottom-line model of sustainability shown in Figure 3 below. This model which Rathzel and Uzzell (2009) describe as the Brundtland or classic model of sustainable development is problematic in many ways. According to SANZ (2009) the model asserts that what is needed is a balance between economic, socio-cultural, and environmental outcomes but that only the tiny intersection of these spheres represents the possibility of sustainability. They suggest that the finite limits of the earth's biosphere are also ignored by this model. Rathzel and Uzzell (2009) point out that often the relationship between the three spheres is "one of conflict and contradiction rather than harmony" (p. 265). SANZ (2009) is harsh in its critique, suggesting,

At its worst, the Triple Bottom Line model leads to human activity in which economic outcomes dominate and environmental and social outcomes receive scant attention. The intersection representing possible sustainability disappears. This has been termed the Mickey Mouse model but it is actually no joke. It is currently the model that underpins most global economic and political decision making. (p. 9)

In contrast to weak sustainability is the concept of strong sustainability which according to Neumayer (2003) is difficult to define but in essence "regards natural capital as fundamentally non-substitutable through other forms of capital" (p. 24). That is, strong sustainability is focused on the preservation of critical forms of natural capital or as SANZ (2009) describe the "preservation of the integrity of all ecological systems in the biosphere" (p. 10). Neumayer (2003) suggests that this does not imply that nature should be kept as it is but that its functions should be maintained. Two key aspects of the strong sustainability paradigm are the recognition that the Earth's resources are finite therefore should only be used in such a way as they do not deteriorate, and that the biosphere has a finite capacity to absorb human waste impact (Neumayer, 2003; Rathzel & Uzzell, 2009).

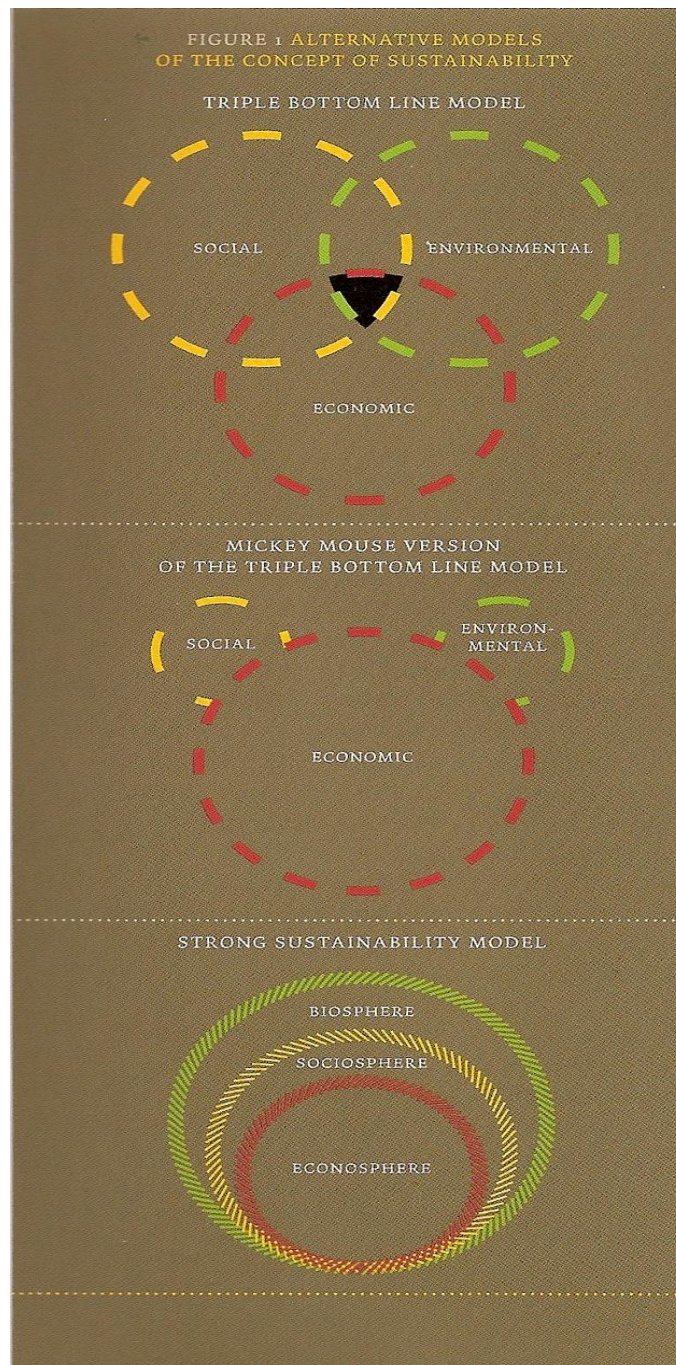


Figure 3. Alternative models of sustainability (Sustainable Aotearoa New Zealand Incorporated, 2009, p. 8)

Williams and Millington (2004) further elaborate on strong sustainability positions, stating that, the common belief linking together stronger sustainability theorists is the view of the Earth as finite and their conceding that no habitable future is possible unless the demand-side of the equation radically alters by rethinking our attitude towards nature as well as our view of economic progress and development. (p.102)

Central to the point that Williams and Millington make is the challenge to the very fabric of over-consuming, resource-rich societies such as New Zealand. This position is supported by Rathzel and Uzzell (2009) who propose that strong or transformative sustainability must consider how to “fundamentally change the social conditions which have led to environmental degradation” (p. 265). This process of critique and transformative change requires, according to SANZ (2009), a shift in societal ethics away from a self-interested capitalist model based on neoclassical economics which gauges success and utility only through material income and wealth. As an alternative, SANZ (2009, p. 12) propose a very different set of societal ethics and values which is worth quoting at length.

1. Placing great importance on non-material sources of happiness.
2. Removing the perceived linkage between economic growth, material possessions, and success.
3. Affirming the deep interdependence of all people. The associated community values include robust sense of mutual respect, fairness, cooperation, gratitude, compassion, forgiveness, humility, courage, mutual aid, charity, confidence, trust, courtesy, integrity, loyalty, and respectful use of resources.
4. Affirming the values of local community, with associated benefits of reduced environmental footprints and increased cooperation between people.
5. Valuing nature intrinsically through knowing that human society and its political economy are integral components of nature and the biosphere. Humans have reverence for nature and know they are responsible for their impact on the integrity of all ecosystems in the biosphere.

SANZ (2009) build the argument that strong sustainability is the only viable paradigm in the long term and that doing some good or doing less bad through paradigms such as weak sustainability is insufficient for New Zealand and its citizens to move towards a sustainable future. This position is not held so strongly by authors such as Neumayer (2003), who suggests many proponents of strong sustainability are not necessarily against weak sustainability, believing it is a step in the right direction although still insufficient to bring about strong sustainability. Williams and Millington (2004) place weak and strong sustainability on a continuum, thinking of these concepts in terms of a spectrum rather than an either/or dualism. Although weak and strong sustainability have defining features which may be considered incommensurate, a pragmatic position which relates these concepts to education needs to consider the end goal of strong sustainability while accepting that we probably start well short of

that goal. Furthermore, it is important to recognise the role that education has in bringing about a sustainable future. The New Zealand Parliamentary Commissioner for the Environment (PCE) (2004) quotes from Agenda 21 of the 1992 United Nations Conference on Environment and Development (UNCED), stating education is “critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision making” (p. 37). Jucker (2002) balances this commonly quoted statement, suggesting that, although education is an important part of building a sustainable future, it cannot do the job of politics, and to expect education to be a panacea for current un-sustainability is “both horribly naive and utterly unfair on the younger generation” (p. 9). With Jucker’s caution in mind, it remains clear that education has an important part to play in moving towards sustainability.

Education for sustainability, according to the PCE (2004), can be viewed as “an emerging concept that encompasses a new vision of education that seeks to empower people of all ages to assume responsibility for creating a sustainable future” (p. 36). Like sustainable development, education for sustainability is open to multiple interpretations, critique and debate. At times, contestation can become paralysing to action so this section seeks to bypass the polemical aspects of the debate to focus on models of education for sustainability commonly used in New Zealand and their relation to the wider body of critical social and ecological theories.

In the New Zealand context education for sustainability is strongly linked to environmental education and can be historically situated back to the inaugural Intergovernmental Conference on Environmental Education in Tbilisi, Georgia, in 1977. This conference resulted in the *Tbilisi Declaration* and established three broad goals for environmental education (Parliamentary Commissioner for the Environment, 2004, p. 36),

- To foster clear awareness of, and concern about, economic, social, political, and ecological interdependence in urban and rural areas.
- To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment.
- To create new patterns of behaviour in individuals, groups, and society as a whole towards the environment.

The PCE (2004) suggests that the *Tbilisi Declaration* has acted as a foundational set of ideas for environmental education and that as these ideas have been revisited, critiqued, contested and expanded as they continue to influence education for sustainability. The shift

towards the use of the term education for sustainability (also known as education for sustainable development) has broadened the focus of environmental education to recognise that socio-cultural and economic wellbeing are as important as ecological wellbeing in bringing about a sustainable future. Furthermore, education for sustainability expands notions of environmental education to become more socially critical, thus challenging the socially constructed fabric of human behaviour which contributes to unsustainable living (Parliamentary Commissioner for the Environment, 2004). This level of criticality implies a level of political action which moves beyond environmental problem solving to build capacity, capability, and action competence in communities where sustainable living becomes the focus. McKenzie (2008) suggests there has been growing support for critical approaches to environmental education and education for sustainability particularly from prominent writers such as Fien (1993; 2000) and Huckle (2008; 2009). However, the extent to which a socially critical perspective should influence environmental education has been debated by authors such as Jickling and Spork (1998) and Walker (1997). Despite this debate, as the previous sections of this chapter have illuminated, both modern and postmodern critical social theories, when combined with critical ecological perspectives, provide a sound framework for transformative educational research. It is from this position that critical aspects of education for sustainability form an important part of the theoretical framework on which this thesis stands.

Acknowledging the historically and socially constituted debates surrounding terms and definitions associated with education for sustainability along with the criticality of environmental education I agree with the position taken by the PCE (2004) who suggests it is more useful to develop common understandings of education for sustainability rather than debate the semantic merits of different titles. With this in mind, the Koru model of education for sustainability (Law, 2006) which is presented in Figure 4 below, will be used in this thesis. This model summarises the theoretical and pedagogical aspects of sustainability as they apply to education in an Aotearoa/New Zealand context.

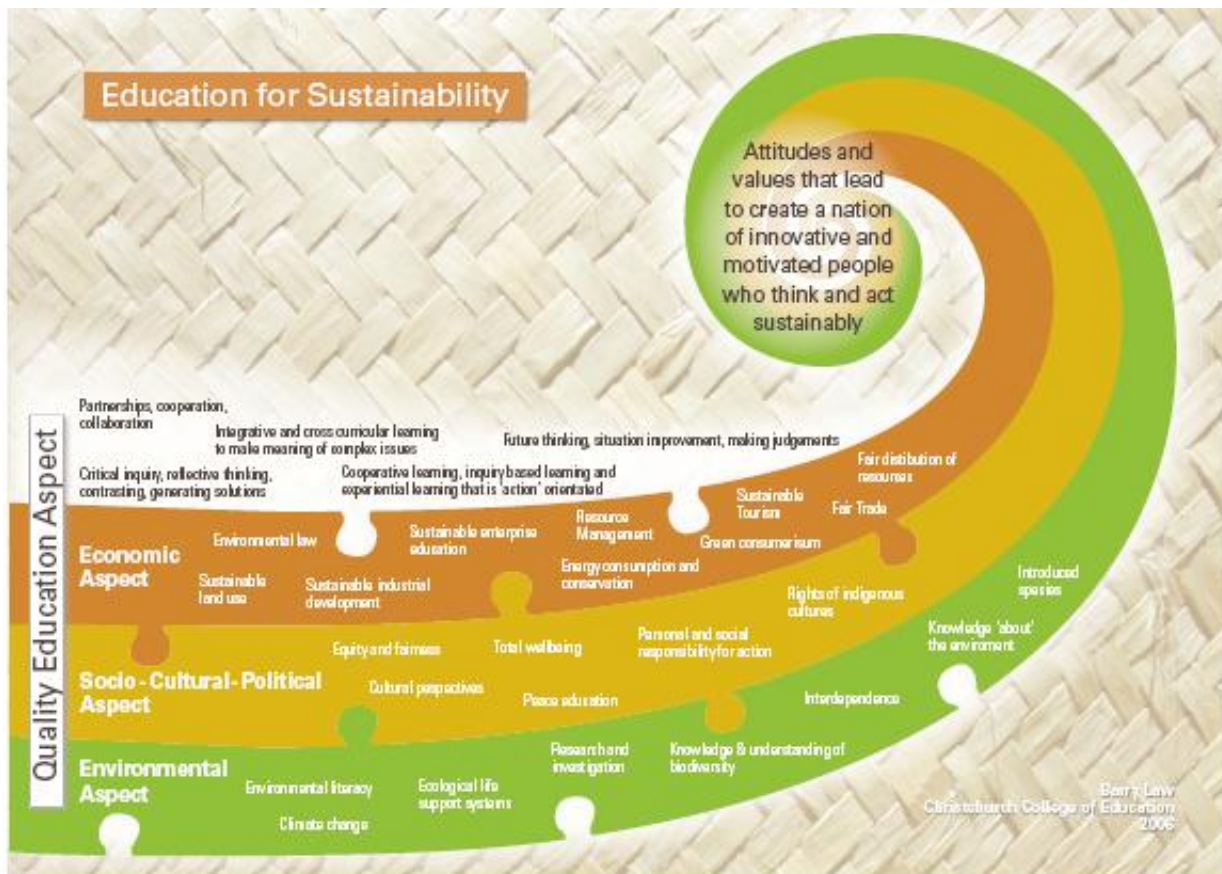


Figure 4. Education for sustainability – Koru model (Law, 2006)

The Law (2006) model demonstrates the interconnected and holistic nature of the three education for sustainability aspects, symbolised by the interwoven harakeke (flax) background, while the shape of the Koru situates the model in the Aotearoa/New Zealand context. The order of the three strands is significant with the economic and socio-cultural aspects resting on the environmental aspect to represent a strong sustainability paradigm. Furthermore, the concepts within each of the strands provide increased detail and pragmatic guidance to educators while the process above the koru point to pedagogical principles. This model seeks to represent an educational focus to strong sustainability and is thus a useful component of the theoretical conceptualisation of sustainability in this thesis. It does not provide detail of how education for sustainability is implemented in Aotearoa/New Zealand, nor of the various programmes and teaching and learning tools which support this area of learning. More information is provided in this area in the subsequent contextual chapter.

This chapter has covered significant and diverse theoretical terrain. Drawing these threads together to form a coherent theoretical position, which informs and underpins this research project, is an important task which is completed in the following conclusion.

Conclusion: Conceptualisation of an Eco-justice and Sustainability Theoretical Framework

These contexts [multiple critical justice theories and pedagogies] underscore the need for further consideration of the intersections among social justice concerns in conjunction with ecological issues, and also make clear that “critical pedagogy” in the 21st century is complex and contested terrain. In its various forms it draws on a diverse range of theoretical orientations and pedagogical practices, and grapples with a wide range of intersecting issues, including the ecological. (McKenzie, 2008, p. 363).

The above quote by McKenzie summarises the intent of this chapter in its attempt to build a critical socio-ecological framework which acts as the anchor points for this thesis. This chapter has examined diverse concepts and perspectives relating to critical social and ecological theory and identified some of the complexity associated with these positions. Through this process there has been an attempt to weave the threads of modernist social justice discourses, postmodern theories, critical ecological perspectives, and sustainability theories into an eco-justice and sustainability theoretical framework. This framework underpins the purpose of this thesis, namely, to challenge the status quo and re-vision outdoor education through the concepts of eco-justice and sustainability. In synthesising such a framework it is timely to revisit some of the key aspects of conceptualising an eco-justice and sustainability theoretical perspective.

An eco-justice and sustainability perspective is concerned with educational and social change towards more socially and ecologically sustainable and just ways of living. It is underpinned by critical theories and pedagogies that seek to identify domination and oppression in political, social, and economic structures and to resist these structures. In a postmodern turn it rejects the totalising grand narratives of modernity such as the autonomous emancipated individual. In a move away from a ‘one-size-fits-all’ emancipation, an eco-justice and sustainability theoretical perspective advocates that change towards economic, socio-cultural and ecological sustainability must be bio-regional, that is, it must take account of local contexts, cultures, language, customs, and knowledge. In effect it will look different in different places.

An eco-justice and sustainability theoretical framework also acknowledges the complexity of living in a postmodern world, where domination takes a variety of forms. Thus it distances itself from essentialising theoretical perspectives such as Marxism, which reduce oppression to class based factors and the market forces of production, capital and labour. An

eco-justice and sustainability position embraces the multiplicity of social interaction and epistemologies, the importance of multiculturalism, and diversity of perspectives. While recognising the plurality of socially constructed cultural norms, behaviours, and patterns of thinking an eco-justice and sustainability perspective avoids the complete relativism of an extreme postmodernism. Through a moderate, oppositional postmodern position it seeks to identify and interrogate the root metaphors or deep cultural assumptions that underpin modernist cultures of over-consuming, resource-rich nations. An eco-justice and sustainability perspective would argue these taken-for-granted ways of thinking, such as anthropocentrism, linear progress, individualism, and consumerism contribute to unjust, exploitative, and unsustainable ways of living.

The conceptualisation of an eco-justice and sustainability theoretical framework does not merely seek to critique or deconstruct. It is committed to reconstruction or transformation. It attempts to locate and advocate a position that offers some normative references to ways of living that place self-sustaining, ecologically literate, and equitable communities ahead of economic rationalism, growth, profit, accumulation, and consumption. This moderate oppositional postmodern position is commensurate with embracing multiple forms of resistance in the complexity and diversity of a postmodern world, while maintaining a commitment to, and thus privileging, sustainable ways of living. This position recognises that there is not a distinct disjuncture between modernity and postmodernity, rather an emergence from the modern into a postmodern world that still accepts those radical narratives associated with modernist discourses.

Being action oriented, an eco-justice and sustainability theoretical framework also informs pedagogy and curriculum. It recognises that all education is political and that pedagogy is deeply embedded in culture. Through adopting a pedagogy of responsibility an eco-justice and sustainability position advocates an eco-ethical consciousness that underpins all aspects of education. In the context of outdoor education in Aotearoa/New Zealand this has specific implications. In challenging the status quo and re-visioning outdoor education theory and practice this project is concerned with how dominant discourses in outdoor education in New Zealand are contributing to ecological and social inequalities and degradation. An eco-justice and sustainability theoretical perspective provides a framework from which to critically examine the places and ecological systems that outdoor education interacts with, as well as the social contexts they affect directly and indirectly through activities and consumption. How then might this perspective influence the ways educators engage students in outdoor education? Outdoor

educators employing an eco-justice and sustainability based pedagogy of responsibility need to engage in reflexive praxis which challenges dominant narratives, cultural assumptions, and associated messages to youth, such as consumerism, individualism, anthropocentrism, and complete buy-in to new technologies. They must also involve students in learning how to live in ecologically and socially sustainable and appropriate ways, open students' eyes to a different way of viewing the world, help them to use a critical lens, and empower them to take action.

This chapter has explored the nexus of critical modern and postmodern socio-ecological theories to develop, what McKenzie (2008) calls, a "critical pedagogy" for the 21st century, which is complex and contested. This theoretical conceptualisation shapes the nature of this research through informing the research questions, providing a scaffold for ontological and epistemological positions and understandings, and influencing the method of inquiry. An eco-justice and sustainability theoretical framework also has the potential to shape and influence outdoor education theory and practice in New Zealand and global contexts. The next chapter explores these contexts.

Chapter 3: Context – Outdoor and Sustainability Education in Aotearoa New Zealand

Introduction

The conceptualisation of an eco-justice and sustainability framework provided in the previous chapter has detailed a theoretical basis for this thesis. It identified, examined and synthesised the socially, politically, and historically constituted nature of critical socio-cultural and ecological theoretical perspectives. This synthesis provided insight into current ecological and social issues the planet faces, as documented by the Millennium Ecosystem Assessment (2005), the IPCC (2008) and writers such as Wilkinson and Pickett (2009), Bowers (2001b), Giroux (2003), and Plumwood (2002). Based on this theoretical framework, the intent of this chapter is to provide a link from wider socio-cultural, ecological, and historical contexts to more specific educational contexts. This involves examining how education, particularly outdoor education, is influenced by national and international trends, issues, discourses and historical perspectives.

This chapter begins by looking at global influences on education, particularly neo-liberal policies and agendas, prevalent in the last three decades. These global perspectives are then related to a New Zealand educational context, from the *Tomorrows Schools* reforms of the late 1980's through to current curriculum trends and developments. More specifically, the contested and often complex concept of outdoor education in New Zealand will be examined from both historical and contemporary perspectives. This overview will explore and critique some of the intersecting local and global discourses that influence and inform outdoor education in this country. It will also look at some recent critiques of dominant assumptions in outdoor education (for example Brown, 2008a, 2008b, 2009; Brown & Fraser, 2009) and identify new trends and ideas, such as place-based and sustainability approaches, which are starting to influence outdoor education internationally and in New Zealand. A final section will explore how education for sustainability is currently situated within New Zealand education contexts. Of particular interest here is the disjuncture between education for sustainability / environmental education and outdoor education in the New Zealand context. It is important to note that each of these sections contain large amounts of literature and are worthy of an entire thesis in their own right. Rather than a comprehensive engagement, the intention of this chapter is to provide a condensed overview of outdoor education as it relates to New Zealand educational contexts.

Global Influences on Education

The state of New Zealand education in the early 21st century is influenced by dominant global ideologies and ways of thinking. Education based on neoliberal assumptions of individualism, competition and the free market, where the primary purpose of schools is to prepare people for a growing and changing workforce, is a dominant theme (Breunig, 2005; Gruenewald, 2003a). The focus here on neo-liberal ideology is due to its relationship with socially and ecologically un-sustainable ways of living. In order to understand how neoliberalism impacts on education, a basic understanding is required. Olssen and Peters (2005, pp. 314-315) suggest neoliberalism can be understood through four central presuppositions which are worth quoting at length:

1. *The self-interested individual*: a view of individuals as economically self-interested subjects. In this perspective the individual was represented as a rational optimizer and the best judge of his/her own interests and needs.
2. *Free market economics*: the best way to allocate resources and opportunities is through the market. The market is both a more efficient mechanism and a morally superior mechanism.
3. *A commitment to laissez-faire*: because the free market is a self-regulating order it regulates itself better than the government or any other outside force. Neoliberals show a distinct distrust of governmental power and seek to limit state power within a negative conception, limiting its role to the protection of individual rights.
4. *A commitment to free trade*: involving the abolition of tariffs or subsidies, or any form of state-imposed protection or support, as well as the maintenance of floating exchange rates and 'open' economies.

McLaren (1998) suggests neo-liberalism is the underlying socio-economic ideology of contemporary western society, which has invaded every aspect of human life including education. Apple (2009) argues that neoliberal, neo-conservative, and managerial impulses can be found throughout the world and are not limited by geographical boundaries or economic systems. He suggests these global social and ideological dynamics are "fundamentally restructuring what education does, how it is controlled, and who benefits from it throughout the world" (p. 1). The influence of neoliberal ideology on education is further explained by Giroux (2003), who argues that the goals of Western education are defined by a neo-liberal free market economy and corporate culture that offers consumerism as the only alternative. According to

Giroux this contributes to students forming “identities steeped in forms of competitive, self-interested individualism that celebrates selfishness, profit-making and greed” (p.10). Neoliberal influences within education can marginalise environmental and social justice issues as articulated by Giroux (2003).

Within the discourse of neo-liberalism, issues regarding schooling and social justice, persistent poverty, inadequate health care, racial apartheid in the inner cities, and the growing inequalities between the rich and poor have been... removed from the inventory of public discourse and public policy. (p.8)

The phenomena described by Giroux can be likened to a kind of “epistemological fog” (Apple, 2009, p. 9), or lack of knowledge by governments and individuals regarding issues of domination, oppression, inequality, and degradation. While neither Giroux (2003) nor Apple (2009) embrace an ecological perspective, their observations can equally apply to environmental issues. These types of knowledge gaps can lead to what Apple (2009) refers to as a “politics of simple acceptance” (p. 10) where action is paralysed by the hegemonic power of dominant ways of acting and thinking. Perhaps this was most visible in the New Zealand public’s acceptance of the failed international climate change conference in Copenhagen, December 2009. Despite the urgent call for action to mitigate climate change from scientists and the IPCC, there is little and/or ineffectual political leadership being demonstrated at local, national, or international levels, as discussed extensively by Orr (2009). How this issue impacts on education remains to be seen.

The ineffectiveness of western education to deal with issues of justice and sustainability is also highlighted by Kincheloe (2007) who suggests that globalised political economic systems, with a neo-liberal basis, have failed to embrace progressive forms of education, therefore exacerbating poverty and its attendant suffering. Kincheloe (2007) is scathing of how private corporate views have infiltrated the traditional public roles of education resulting in schools being treated as commodities, subject to the free market, with students transformed from citizens to consumers. He argues that the construction of market systems in education promotes values of individualism, self-interest, corporate management and consumerism instead of public ethics and democracy. “Thus, the social curriculum being taught in twenty-first-century Western schools often involves a sanctification of the private sphere in a way that helps to consolidate the power of corporations” (Kincheloe, 2007, p. 25). In advocating for sustainable education Sterling (2001) would concur with Kincheloe in suggesting, “most education daily reinforces unsustainable values and practices in society – we are educated by and large to compete and

consume rather than to care and conserve” (p. 21). Sterling and Kincheloe argue that schools act to perpetuate dominant ways of knowing through classroom practices and curriculum that are most often associated with the dominant race, gender, religion and culture of the group that controls the wealth and power within that society. This process, according to Sterling (2001), is enhanced by education systems which fulfil socialisation, vocational, and liberal functions which serve to replicate society and culture, train people for employment, and develop individuals’ potential. What is missing from this educational paradigm is a transformative function which encourages change towards a fairer, more just and sustainable world.

Notwithstanding global neoliberal and unsustainable influences in education, Apple (2009) reminds us that there are examples of agency, interruption of domination, and counter-hegemonic activism both inside and outside education throughout the world. He implores educators to recognise and embrace education as a political act and in doing so advocates a repositioning of education which embodies principles of critical education. Apple (2009) suggests this involves “thinking as rigorously and critically as possible about the relations between the policies and practices that are taken for granted in education and the larger sets of dominant economic, political, and cultural relations, and then connects this to action with and by social movements” (p. 15). At a pragmatic level Sterling (2001) suggests sustainable education needs to build on the traditions of liberal education, looking to build the potential of individuals within the context of educating for sustainability, community, justice, and peace. The call by Apple to critique, and take action against cultural assumptions entrenched by neoliberal systems, and by Sterling to re-vision education for a sustainable future, is at the heart of this thesis.

While understanding something of the international educational context is important, narrowing the focus to understand the impact of global economic and political ideologies on New Zealand education is a key part of contextualising this research. This is briefly outlined below.

Influences on New Zealand Education

In New Zealand the influence of the neo-liberal agenda within education began with the Labour Government’s *Tomorrows Schools* reforms of the late 1980s and was strengthened by the National government’s educational policies through the 1990s. Prior to the Picot report in 1987, New Zealand’s education system had a centralised model of governance and management through regional education boards, which linked directly to the then Department of Education. The Picot Report (1988) was critical of this model and provided a framework for educational

reform which was situated in the historical, political and economic contexts of the 1980s Labour Government and their neoliberal economic agenda known as ‘Rogernomics’⁶. It is suggested by Gordon and Whitty (1997) that New Zealand moved further toward implementing ‘New Right’ neoliberal approaches to education than most other countries. Apple (2001) observed that neoliberal policies in education occurred faster in New Zealand than anywhere else in the Western world.

The *Tomorrows Schools* reform policies had the intention of creating a free-market education system where parental choice would determine quality (Snook, 1989). These reforms, according to Codd (2005) emphasised devolution, efficiency and choice, considered to be the hallmarks of neoliberalism. They were informed by a range of new economic and management theories such as public choice theory, managerialism, principal-agency theory and transactional cost analysis (Codd, 1999). The marketisation of education through these reforms created, what Gordon and Whitty (1997) refer to as, a quasi-market where a dualism existed between the non-interventionist goals of a free educational market and high levels of government intervention to manage this market. Codd (2005) refers to this dualism as a “process of simultaneous devolution and control” (p. 194) which embraced both local market forces and increased centralised accountability. Key policies to emerge from the late 1980s reforms created autonomous self-managing schools where operational funding was devolved to school management and boards of trustees in a bulk grant. Parents were also encouraged to ‘shop around’ for their children’s education, effectively creating competition between schools. As the National government of the 1990s continued on the path of neoliberal reform they more vigorously pursued complete bulk funding of schools, including teachers’ salaries, although as Gordon and Whitty (1997) point out, in 1996 only 6% of schools had opted into the fully bulk-funded model. National’s policies also began to focus more on curriculum and assessment with a newly developed New Zealand Curriculum Framework which according to Codd (2005) was based on “a forced separation of curriculum processes from learning outcomes, inevitably leading to a narrowing of content to focus on product rather than the processing of learning and thinking” (p. 196). Accompanying an

⁶ Rogernomics is a combination of ‘Roger’ and ‘economics’ which refers to the economic reforms led by Roger Douglas, finance minister of the Labour Government (1984-1990). Rogernomics is an eclectic term closely aligned to the policies of “Radical Monetarism” (Easton, 1997).

outcomes based curriculum was an emphasis on assessment and standards which in 1999 led to the piloting of national testing in numeracy and literacy for 9 and 11 year olds (Thrupp, 2001).

While there were some perceived benefits from the *Tomorrows Schools* reforms, Sharpe (1996) and Codd (2005) claim that there were negative consequences of the devolution process. The first of these was the adoption of the view of education as a political tool of economic rationalism which forced schools to adopt an efficiency-based business or market model. According to Codd (2005) this led to a culture of managerialism where “quality has become a powerful metaphor for new forms of managerial control” (p. 200). Linked to accountability and quality assurance this has led to a preoccupation with performance in schools which is concerned with production and measurement of outcomes through objective setting, planning, reviewing, internal and external monitoring. Codd (2005) suggests these trends have undermined the professional role of teachers to the point where they are “little more than skilled technicians” (p. 202). The second consequence has been the increasing commercialisation of an education industry where education could be seen as a commodified product. An example of this is the growth of education as an export business to foreign fee-paying students, where in 2002, 20 percent of all primary schools and 71 percent of secondary schools had foreign fee-paying students enrolled (Codd, 2005). Educational reforms since the late 1980s have had profound effects on teaching and schooling according to Codd (2005) who states that “by placing the emphasis firmly on economic purposes of public education, neoliberal policies have eroded fundamental democratic values of collective responsibility, cooperation, social justice, and trust” (p. 204).

The extent to which historically situated educational reforms in New Zealand have left a lasting legacy is contestable. Thrupp (2001) suggests that the election of the Labour government in 1999 represented a repudiation of the neoliberal policies pursued by the 1984-89 Labour and 1990-99 National governments. Although Codd (2005) disagrees with this interpretation, arguing the policies of the 1999 Labour government continued with a neoliberal agenda, albeit with a softer face, Thrupp (2001) provides several instances of policy change in 1999/2000 to support his stance. First, the almost immediate discontinuation of bulk funding of teachers salaries. Second, the introduction of residential enrolment zones which were designed to discourage market competition and prevent oversubscribed schools (usually in higher socio-economic, predominantly white areas) from picking off the most desirable students. This was intended to avoid the creation of ‘winner’ and ‘loser’ schools. Further policy changes included the scrapping of pilot national testing in numeracy and literacy for 9 and 11 yr old students, provision of non-

contestable core professional development services for teachers, and less support for private schooling. Thrupp (2001) concedes that the ability of the 1999 Labour coalition government to overturn neoliberal policy was constrained by fiscal considerations and “hostility from a business and bureaucratic milieu that remains dominated by New Right beliefs” (p. 200). Certainly in my experience as a secondary teacher there appears to be little respite from a marketised education environment. Constant pressure to increase students’ achievement so as to lift the schools profile, and market the school through open-nights and co-curricular activities created no illusions about the competitive world of schooling. Coupled with a tangible culture of managerialism and associated workload issues concerning assessment and reporting, quality assurance, constant improvement, and external accountability, the neoliberal agenda in New Zealand education appears to be alive and well.

More recent developments, such as the revised New Zealand Curriculum (NZC) (Ministry of Education, 2007a) and Te Marautanga o Aotearoa (Ministry of Education, 2007b), along with new policies and initiatives from the 2008 elected National coalition government, provide further insight into the current educational landscape in New Zealand. The NZC (Ministry of Education, 2007a) can be interpreted as a shift away from a narrow outcome-focused curriculum. It is concerned with a rich and balanced view of education which is articulated by the New Zealand Secretary for Education (Sewell, 2007), and worth quoting at length.

The New Zealand Curriculum is a clear statement of what we deem important in education. It takes as its starting point a vision of our young people as lifelong learners who are confident and creative, connected, and actively involved. It includes a clear set of principles on which to base curriculum decision making. It sets out values that are to be encouraged, modelled, and explored. It defines five key competencies that are critical to sustained learning and effective participation in society. (p. 4)

There are two points of note about the NZC (Ministry of Education, 2007a). First, there is a significant emphasis on the processes of teaching and learning, and underpinning principles and values, rather than just on outcomes. Indeed the first 42 pages are concerned with these processes before the specific learning outcomes are mentioned. Second, the vision, principles, values, and key competencies provide considerable opportunity and mandate for educating towards a sustainable future. Connection to local and global communities, land and environment is a key part of the vision statement. The principles, which provide a foundation for curriculum decision making include, cultural diversity, inclusion, community engagement, coherence, and a future focus. Values include, diversity, equity, community and participation for the common

good, and ecological sustainability. All of these concepts are important for education based on an eco-justice and sustainability framework.

Also of interest is the way in which the NZC is to be interpreted and implemented by schools. This process views the NZC as a framework rather than detailed plan, giving schools the “scope, flexibility, and authority they need to design and shape their curriculum so that teaching and learning is meaningful and beneficial to their particular communities of students” (Ministry of Education, 2007a, p. 37). Following from this, the NZC suggests teachers should be able to interpret their local school curriculum to respond to the particular needs and talents of their students, in essence strengthening the professional autonomy of teachers. This intent of the NZC is significant. It provides schools with the opportunity to develop their own local curriculum which is guided by the vision, principles, value, key competencies and learning outcomes of the NZC. There are significant possibilities for educating in radical ways towards a sustainable future which are afforded by such a curriculum. These opportunities are also supported by Te Marautanga o Aotearoa (Ministry of Education, 2007b), the Māori medium New Zealand curriculum. In particular Te Marautanga o Aotearoa (Ministry of Education, 2007b) strongly promotes and embraces traditional Māori values and knowledge, Te Reo Māori (language), the importance of whanau, hapu, iwi, and community, links between environmental and spiritual health, and the Treaty of Waitangi⁷. Together the NZC (Ministry of Education, 2007a) and Te Marautanga o Aotearoa (Ministry of Education, 2007b), as the key guiding documents for New Zealand formal education, offer hope and direction for educating towards a sustainable future.

Since the publication of these curricula, a change in government has seen a shift in focus for education in New Zealand. The 2008 National led government has made policy decisions which can be interpreted as a strengthening of a neoliberal agenda. In particular they have: introduced national standards (testing) for all primary school levels; reduced teacher support services and professional development available to schools to only those areas directly related to literacy, numeracy, and assessment; reduced / renegotiated funding to Enviroschools and education for sustainability initiatives (including disestablishing education for sustainability advisors); cut funding to community adult education; weakened Education Outside the Classroom (EOTC) functions, and increased funding to private schools. It must be noted that many of the above policy changes have met with varying degrees of disagreement from

⁷ The Treaty of Waitangi (1840) is a foundational constitutional document which recognises the bicultural nature of Aotearoa New Zealand and recognises Māori as tangata whenua.

teachers, education academics, and the public. At the point of writing, the current government is half way through their three year term. It remains to be seen what future directions National's education policy will take, although it is likely given current decisions, to be strongly aligned to a neoliberal ideology. By implication then, this creates an educative landscape which is hostile to the goals of democratic, participative, and critical education based on principles of eco-justice and sustainability.

This brief overview of the recent historical, political, and cultural contexts of New Zealand education has provided a broader reference point for a more specific look at outdoor education in New Zealand schools. Furthermore it helps to situate our understanding of dominant discourses which have shaped the development of outdoor education in this country. Understanding New Zealand outdoor education development is further enhanced by exploring global trends and ideas which have strongly influenced the field of outdoor and adventure education through the twentieth and early twenty-first centuries. It is this task that the next section undertakes before charting historical and contemporary perspectives of outdoor education in New Zealand schools.

Global Trends, Ideas, and Practices in Outdoor Education

This section briefly explores some of the historical thinking and practices which have underpinned and influenced traditional notions of outdoor and adventure education internationally. The majority of these influences have come from Britain, North America (USA and Canada), and more recently, Australia. As has been discussed in the introduction, precise conceptualisation and definition of outdoor education is difficult and even problematic. As Nicol (2002a) reminds us, "outdoor education defies definition in terms of being a fixed entity of common consent, homogeneous over time and space" (p. 32). I am mindful of the historically and socially constituted nature of outdoor education concepts and recognise these are often contested. It is therefore the intent of this section to provide insight into some of the ideas and practices which have come to hold dominant positions within the area of outdoor education rather than to extensively document the historical development of outdoor education (see Loynes, 1999; Lynch, 2003, 2006; Nicol, 2002a, 2002b; Railoa & O'Keefe, 1999 for further reading).

According to Brown (2006) traditional outdoor education outcomes such as learning through adventure and challenge are not a recent phenomenon and can be traced to influences as far back as Plato. In more recent times, dominant notions of outdoor and adventure

education have developed through a series of overlapping trends, which have been informed by a number of personalities, concepts, and theories. People such as Baden Powell, John Dewey, L. B. Sharp, and Kurt Hahn have had significant influence on the development of outdoor and adventure education (see Loynes, 1999; Railoa & O'Keefe, 1999; Richards, 1999). Concepts and theories central to traditional notions of outdoor and adventure education, include personal and social development, experiential learning (see, Kolb, 1984; Luckner & Nadler, 1997; Wurdinger & Priest, 1999), adventure based learning / project adventure (see, Cosgriff, 2000; Prouty, 1999), the adventure experience paradigm (see, Martin & Priest, 1986; Priest, 1999), and environmental education, among others. These concepts are regularly endorsed and detailed in books such as *Teaching in the Outdoors* (Hammerman, Hammerman, & Hammerman, 1994), now into its fourth edition, *Adventure Programming* (Miles & Priest, 1999), and *Effective Leadership in Adventure Programming* (Priest & Gass, 2005). Although many of these ideas have received critical attention in the last decade, they continue to hold privileged positions within dominant conceptions of outdoor education. For example, a recent New Zealand Government publication called *EOTC: Bringing the Curriculum Alive* (Ministry of Education, 2009a) contained a section called 'operation zones' based on Martin and Priest's (1986) adventure experience paradigm. Further discussion and critique of these concepts is addressed in a subsequent section of this chapter.

The dominant personalities, concepts, and theories, identified above, work to invoke popular conceptions of outdoor education which, according to Nicol (2002a), are related primarily to content, that is, outdoor activities such as kayaking, skiing, and climbing. He states "these activities have traditionally been categorised as outdoor pursuits which together with field studies represent the two main traditions in outdoor education" (p. 30). Brown (2006) expands this in conceptualising outdoor adventure education through intrapersonal relationships (i.e. self-concept and self-efficacy), interpersonal relationships (i.e. working with others and communication), and relationships with the environment, which all take place in the context of adventure pursuit activities. Despite the often explicit environmental aims of outdoor education, Brown (2006) proposes that environmental relationships have been neglected by traditional adventure and personal development outcomes. Haluza-Delay (1999b) adds to this, suggesting that outdoor adventure education programmes are usually oriented around pursuit activities which work to objectify the natural world as a glorified playground with a focus on its utility for human purposes. This perspective is supported by Payne & Wattchow (2008) who lament the lack of attention to 'place' or the actual environments where adventure occurs. In an

insightful summary of the traditional outdoor adventure education discourse Payne & Wattchow (2008) state,

Traditionally, mainstream or *modern* outdoor education has focused on certain outdoor activities and pursuits, preoccupied itself with notions of adventure and challenge, touched on the paradox of risk and safety, and emphasised the human, or anthropocentric, benefits of personal and social development by being immersed in the outdoors. (p. 25)

One of the key issues for Payne & Wattchow (2008) is the persistence of traditional or modern outdoor education discourses as a “dominant logic” embedded into the traditions and practices of outdoor education. Rooted in these discourses are anthropocentric and individualistic foci and activities which promote a “seductive consumerism” enhanced by technological development and middle-class affluence. In a critique of traditional pursuit activities in outdoor education Payne & Wattchow (2008) expand on this by stating,

While such activities also have considerable value in their own right, their use in action, we believe, all too often pre-configures and pre-determines a highly anthropocentric, technical and linear-like relation of learners with or in the outdoors. The possibility of place is diluted, or diminished. (p. 35)

They suggest that the construction of traditional or modern discourses in outdoor education, and associated activities, have arisen from imperial and colonial influences, common programme characteristics, and international movements such as Scouts and Outward Bound which valorise particular forms of ruggedness, independence, and character building.

Furthermore, the dominant logic in traditional outdoor education identified above, was imbued with both patriarchal tendencies and gendered practices, as discussed by authors such as Bell (1996, 1997), Humberstone (1995, 2000), and Pedersen (Humberstone & Pedersen, 2001). Whilst a full examination of the gendered nature of outdoor education is worthy of an entire thesis in its own right and beyond the scope of this project, it is important to acknowledge the importance of this work. Bell (1996, 1997) was a key figure in exposing and interrogating patriarchal tendencies in outdoor and adventure education paying particular attention to critiquing essentialist and heteronormative notions of gender in outdoor education theory and practice. Humberstone and Pedersen (2001) continued this work suggesting that hegemonic ideals such as ‘muscular Christianity’ associated with the likes of Outward Bound, served to perpetuate and reinforce historically gendered traditions in outdoor education practices,

particularly in the United Kingdom and Norway. They also point to the 'wilderness' places and activities that often constitute outdoor education practice suggesting that these are subject to cultural appropriation and as such, often become symbols and markers of hegemonic masculinity. However, the gendered institution of outdoor and adventure education can also act as a site for counter-cultural struggle over gender subjectivities (Humberstone & Pedersen, 2001). This important point highlights the complexity of cultural assumptions such as patriarchy and how they are both reinforced and contested through the particular practices and lived experiences of outdoor education teachers. This thesis returns to these themes in Chapter 5.

Research in outdoor education can also be linked to some of the dominant concepts and ideas expressed above. Literature indicates a predominance of research in outdoor and adventure education, particularly in the twentieth century, which focused on measuring outcomes of programmes such as personal development or character building (Allison & Pomeroy, 2000; Brown, 2006; McKenzie, 2000). Rea (2008) suggests that research into such processes and outcomes is related to the dominance of a neo-Hahnian personal development discourse in outdoor adventure education. Brown (2006) supports this, stating "much of the research in adventure education has tended to concentrate on the dependent variable that could commonly be referred to as 'personal development outcomes': self-esteem, self-concept, self-efficacy, self-worth and self confidence" (p. 690). This type of research has been summarised by meta-analysis studies which use statistical techniques to accumulate and represent research data from a variety of previous studies. With an interest in the question "does outdoor education work?" Neill & Richards (1998) summarised the findings of meta-analysis studies by Cason & Gillis (1994) and Hattie, Marsh, Neill, & Richards (1997). In a broad-brush summary they suggested that overall, outdoor education did 'work', with about 65% of participants in adventure programmes showing some benefits over those who did not participate. Hattie et al. (1997) argue that the effects of adventure programmes are comparable to other classroom based educational initiatives but qualify this by stating,

Overall, the results suggest that adventure programs can obtain notable outcomes and have particularly strong, lasting effects. It is clear, however, that adventure programmes are not inherently good. There is a great deal of variability in outcomes between different studies, different programs, and different individuals. (p. 77)

The dawn of the twenty-first century brought with it a new critical agenda in outdoor education research. A key piece of work in this regard was Brookes (2003a; 2003b) who provided a critique of research into personal development outcomes of traditional outdoor adventure

programmes. Brookes argued that while outdoor education is of benefit to people, it does not facilitate personal trait development or character building. In critiquing these assumptions, Brookes (2003a) states that “character building has been a remarkably persuasive and appealing slogan, but is flawed as a basis on which to base substantive claims for outdoor adventure education” (p. 59). He suggests that many in-house studies may well be contaminated by attribution error which calls into question much of the outdoor adventure education research that has focused on character building. Brookes (2003b) proposes future directions for outdoor adventure education research, suggesting there is a need to pay attention to geographical, social, political, cultural and personal circumstances and make use of social science rather than just rely on psychology. This position is supported by Alison and Pomeroy (2000) who argue that by focusing on limited outcome focused questions, researchers could be seen to lack understanding of the complexity and subtlety of the experiential education field. Alison and Pomeroy (2000) advocate for an epistemological and ontological shift so that researchers ask questions such as: What processes are at work in this situation? Or, what are the participant’s perspectives on this programme? Rather than just; does it work? This type of research opens opportunities to challenge the discourses that dominate traditional outdoor adventure education and place new issues on the table. It is very much this genre of outdoor education research that this thesis sits within.

The rise of critical and qualitative paradigms in outdoor education research was accompanied by emerging socio-ecological and sustainability perspectives in outdoor education literature, thinking and practice. These perspectives continue to critique many of the assumptions upon which traditional outdoor education concepts and theories are based. Before exploring these critical perspectives, which are central to the work of this thesis, it is timely to briefly capture the development of traditional outdoor education concepts and narratives, particularly in New Zealand schools.

The Development of Traditional Outdoor Education in New Zealand Schools

Outdoor education in a variety of guises has a rich history in New Zealand dating back to the late nineteenth and early twentieth centuries, which has been most thoroughly presented by Pip Lynch (2000; 2003; 2006). It is not the intent of this section to thoroughly recount this literature, rather to provide a brief contextual overview. It must also be noted that outdoor education is a constructed and contested concept. Rather than provide particular definitions at this point it is more useful to understand the multiple contexts which have influenced the

historical understandings of outdoor education in New Zealand. As this chapter unfolds it will reveal these understandings, particularly those which have come to dominate the outdoor education landscape in New Zealand.

The historical development of outdoor education in New Zealand was largely influenced by British and, to a lesser extent, North American contexts. This resulted in a predominant image of outdoor education that saw young people engaged in physical adventure pursuit activities in natural environments (Lynch, 2006). Prior to the 1950s, outdoor learning experiences were bound to the camping tradition and often involved curriculum enrichment in areas such as nature study and geography. After World War II, Lynch (2006) observed there was a boom in outdoor recreation activities, such as tramping, camping, and climbing which worked their way into schools, largely as extra-curricular activities. It was during the 1950s that outdoor education in the form of school-camps became a 'permanent' fixture in schools and flourished through the next decade due to wide acceptance and public enthusiasm (Lynch, 2006). However, with the social and economic conditions of the late 1960s and 1970s people questioned outdoor education as a tenable part of school learning, with some members of the public calling for school trips and camps to be cut. Resourcing, safety and staffing concerns also influenced outdoor education during these times and were perhaps a catalyst for the opening of a number of residential outdoor education centres to provide outdoor learning experiences for schools. During this time, according to Lynch (2006), social and personal development through communal living and adventure pursuits rather than curriculum studies became the norm. This led to adventure programmes, influenced by Outward Bound type models, becoming a common style of outdoor education in secondary schools.

It is interesting to consider the relationship between outdoor education and environmental education during these times. In the early to mid twentieth century, outdoor education and camping incorporated many of the aims of environmental education through nature and curriculum based studies. Outdoor education remained closely linked to, or synonymous with, environmental education through the 1960s and into the 1970s. However, according to Lynch (2006) records of outdoor programmes in the late 1970s and early 1980s only infrequently refer to environmental education activities. Lynch (2006) identifies unease in this relationship suggesting, "environmental education appears to have been a convenient rationale for outdoor education, which by now appeared to involve outdoor pursuits almost exclusively" (p. 147). Lynch goes on to suggest that from the 1980s "there is little evidence that outdoor education, in general, met the aims of environmental education" (p. 154). As a result some

proponents of a broad view of outdoor education began to actively promote environmental education. This resulted in outdoor education and environmental education developing alongside one another, often competing for resources. In 1984 the New Zealand Association for Environmental Education (NZAAEE) was established and as time went on it distanced itself from pursuit focused outdoor education associations and practices. From this time until the present there has been a growing disjuncture between outdoor education and environmental education in New Zealand.

Tomorrows Schools reforms in the late 1980s and 1990s heralded considerable change for education in New Zealand which had both positive and negative effects on outdoor education. Most significant according to Lynch (2006) were that administration and support structures for outdoor education were disestablished and time pressures on teachers increased through administrative tasks which meant less opportunity for outdoor experiences. Positive effects were the development of senior school outdoor education courses, particularly Sixth Form Certificate, with increased flexibility of assessment. The 1980s also saw the adoption of the term Education Outside the Classroom (EOTC) by the New Zealand Department of Education, which refocused the domain of outdoor education to a broader sense of outdoor learning experiences across a range of curriculum areas (Boyes, 2000). EOTC learning experiences grew in many schools and were used extensively by learning areas such as the social sciences, arts, physical sciences, health and physical education. Despite this, Lynch (2006) suggests, “outdoor education continued to be understood as that part of EOTC which engaged students in outdoor pursuit activities in natural environments for the purpose of social and personal development” (p. 171). This strengthening discourse of personal and social development through risk centred outdoor pursuits, as described by Lynch above, continues to influence contemporary outdoor education thinking and practice in New Zealand in the early twenty-first century.

By then outdoor education in New Zealand schools existed in diverse forms. These included: formally assessed outdoor pursuit based subjects in senior secondary schools, curriculum enrichment experiences as part of EOTC, and units as part of physical education programmes (Lynch, 2006). A significant influence in this context was the implementation of the Health and Physical Education curriculum document in 1999, which saw outdoor education officially recognised as one of seven key areas of learning in that curriculum. This development legitimated outdoor education in schools with a focus on the development of “personal and social skills, to become active, safe, and skilled in the outdoors, and to protect and care for the environment” (Ministry of Education, 1999b, p. 46). The revised New Zealand Curriculum (NZC)

(Ministry of Education, 2007a) brought few changes to the Health and Physical Education component of this document, retaining outdoor education as a key learning area. Although the Health and Physical Education curriculum is underpinned by concepts such as socio-ecological perspectives and Hauora (holistic well-being), and makes direct reference to communities and the environment, Cosgriff (2008) suggests outdoor education within this context appears to be centred on “an activity based focus of adventure activities and outdoor pursuits” (p. 16).

Since inclusion in the Health and Physical Education Curriculum in 1999, outdoor education has struggled with meaningful and appropriate assessment tools across all levels of secondary schooling, as I have discussed elsewhere (Hill, 2010b). Furthermore, as New Zealand transitioned to the National Certificate of Educational Achievement (NCEA) in the early 2000s, there was little development of assessment standards specifically for outdoor education. In response to this, schools which were offering full courses in outdoor education began using unit standards developed by the Sport Fitness Recreation Industry Training Organisation (SFRITO, now known as Skills Active). These standards counted towards NCEA, and could be linked to some aspects of the New Zealand Curriculum, but were primarily developed for industry training. While this helped to legitimate senior-school outdoor education programmes, through enabling schools to assess a wide range of outdoor pursuit skills, it was also problematic. Outdoor education linked to the Health and Physical Education curriculum and Skills Active unit standards works to strengthen a focus on outdoor pursuits. With regard to the relationship between particular assessment tools and a focus on adventure pursuit in outdoor education, Jones (2005) suggests that unit standards which focus on vocational learning have “shifted the emphasis more towards skills training . . . and away from other aspects of outdoor education” (p. 30). Outdoor pursuit based assessment approaches lack holistic educational perspectives and reinforce the disjuncture between outdoor education and environmental education or education for sustainability.

Although research into outdoor education in New Zealand schools is limited, there are several studies which provide useful contextual background for this thesis. Zink and Boyes (2006) presented a ‘snap shot’ view of the nature and scope of outdoor education in New Zealand schools in which they defined outdoor education as “...the use of the natural environments for the purposes of teaching and learning in the outdoors”(p. 12). Data was obtained by surveying teachers who attended Ministry of Education funded Safety and EOTC workshops across New Zealand in 2002 and 2003, although response rates were low. Results from the survey were grouped into current practice for primary schools, current practice for secondary schools, and

learning outcomes across both sectors. Secondary school findings, according to Zink and Boyes (2006), indicated the foci of outdoor education practice were more strongly aligned to personal and social development followed by the acquisition of specific skills and knowledge. It was common for secondary schools to use the outdoors as a learning medium across different curriculum areas, and a wide range of NZQA assessment tools were employed, although the majority were based on outdoor pursuit activities. Findings related to the most important learning outcomes for outdoor education were associated with the health and physical education curriculum document, such as personal and interpersonal skill development, fun, enjoyment, and skill development. It was noted by the authors that learning outcomes around cultural or ethnic understanding and environmental understanding were not seen to be as important as personal and social development. Importantly Zink & Boyes (2006) give some possible reasons for this, stating,

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. (p. 20)

Zink and Boyes' (2006) suggestions for further research in this area is of direct relevance to this research thesis.

Research by Haddock (2007) sought to "provide a national picture of EOTC" (p. 3) which differed from the work of Zink and Boyes (2006) by looking at the broader concept of EOTC, or Education Outside the Classroom. The research was conducted through an electronic survey which was emailed to all secondary school principals in October 2006 and the author acknowledged a low response rate and possible bias towards a positive view of EOTC given their self selection by completing the survey. Despite these limitations many of the findings presented in the *Secondary Schools Report* (Haddock, 2007) showed consistencies with those of Zink and Boyes (2006) albeit with different contexts. Haddock's (2007) findings indicated that almost all schools (95-100 percent) felt that EOTC was important in achieving four of the five key competencies: managing self, relating to others, participating and contributing, and thinking. Findings focused on learning outcomes revealed over 97 per cent of schools reported that EOTC supports outcomes such as safety knowledge and skills, improved self confidence, and problem solving.

The research of Haddock (2007), Zink and Boyes (2006), and Lynch (2003, 2006), help to paint a historical and contemporary picture of outdoor education in New Zealand. This picture is further complemented by the work of New Zealand outdoor education researchers and writers such as Davidson (2001), Zink (2003), Kane and Tucker (2007), and Cosgriff (2008). Davidson's (2001) qualitative research into the learning experiences of a New Zealand secondary school outdoor education class supports the centrality of the personal and social development discourse in New Zealand outdoor education. This discourse has strong links to the role of adventure and outdoor pursuit activities in outdoor education. Zink (2003) suggests there is anecdotal evidence to support both the predominance of pursuit-based activities in New Zealand outdoor education and the increasingly younger age groups being introduced to these activities. Three reasons are given by Zink (2003) as to why pursuits may be privileged over other forms of outdoor education experiences. First, the influences of character building, personal development, and adventure paradigm discourses which promote and valorise adventure pursuit activities. Second, the risk discourse that keeps challenging and risky activities "sharply in focus" (p. ??). Third, the promotion of pursuit activities through the saturation of adventure images in New Zealand media and society and the adventure industry infrastructure. Although Zink (2003) sees a role for pursuit-based activities in outdoor education, she suggests "we need to be asking a wider range of questions about what we offer students as part of outdoor education" (p. 60).

Zink's work is supported by Kane and Tucker (2007) who highlight the adventure discourse in New Zealand outdoor education. Kane & Tucker (2007) argue that "[in] New Zealand culture the concept of adventure is intrinsically linked to outdoor pursuits" (p. 29). They suggest that a historical narrative of adventure, based around heroes who role modelled loyalty, bravery, and character, is central to adventure's place in outdoor education. This adventure pursuit narrative has held a position of dominance within school outdoor education programmes according to Cosgriff (2008). She suggests that personal and social development outcomes have "served to keep outdoor pursuits and adventure activities at the forefront of many school programmes" (p. 14), which has consequently "sidetracked the focus from outdoor environmental education" (p. 14).

The literature summarised in this section serves to outline dominant conceptions of outdoor education in New Zealand schools. This is not to say that these authors support or advocate for narrowly defined versions of outdoor education theory and practice. Increasingly

there is a critical element entering New Zealand outdoor education literature which is discussed below.

Critical Socio-ecological Perspectives in Global and New Zealand Outdoor Education

As traditional outdoor education discourses and the research that supports them have been critically examined, there have been increasing calls for incorporation of socio-ecological and sustainability perspectives into outdoor education thinking and practice. This call is led strongly by many of Australia's outdoor education academics (see, Brookes, 1994, 2003a; Gough, 2007; Lugg, 2004, 2007; Martin, 1999, 2008b; Payne, 2002; Payne & Wattchow, 2008; Thomas, 2005) supported by proponents and advocates from North America and Britain (see, Breunig, 2005; Haluza-Delay, 1999a; Higgins, 2009; Loynes, 2002; Nicol, 2003; O'Connell, Potter, Curthoys, Dymont, & Cuthbertson, 2005). There is also a growing body of critical literature within the New Zealand outdoor education context (see Brown, 2008a, 2008b, 2009, 2010; Brown & Fraser, 2009; Hill, 2008, 2009b, 2010b; Irwin, 2008a, 2008b; Zink, 2003). This section explores the writing of some of these authors and synthesises potential directions for outdoor education, offered through the adoption of critical socio-ecological and sustainability perspectives. Specifically, it provides a snap-shot of this literature rather than an extensive examination.

Calls for a change in thinking, critique of practice, and the adoption of more environmentally attuned and sustainable foci, have been emerging since the early 1990's, particularly in Australia (see, Brookes, 1994). These foci led to the influential work on critical outdoor education by Martin (1999) which was discussed in Chapter 2. While the concept of critical outdoor education has been critiqued at both conceptual and practical levels (see Payne, 2002), I believe it has provided stimulus and direction for a continued effort to adopt more socio-ecological perspectives in outdoor education. More recent developments in this vein have come through calls for education for sustainability to have a greater role in outdoor education particularly in Australia (see Gough, 2007; Lugg, 2007). In Aotearoa New Zealand formal outdoor education has aligned itself more with physical education than environmental education. In contrast, Australian formal outdoor education, particularly in Victoria, has distanced itself from physical education by associating itself with environmental education (Gough, 2007). Given this context, Gough (2007) suggests that education for sustainable development, in the secondary school sector, provides "a wide range of opportunities to engage more strongly with broader

sustainability issues” (p. 26). She advocates for a re-visioning of Outdoor and Environmental Studies to include relevant aspects of the education for sustainability agenda.

Lugg (2007) is advocating for a similar inclusion of education for sustainable development into post-secondary or higher level outdoor education in Australia. In doing so she urges educators to be cognisant of the contextual issues surrounding the sustainable development discourse. She also suggests the need to consider the deep, complex barriers to education for sustainability, such as “fundamental cultural and social values that see humans as separate from ‘nature’ and that promote individualistic, competitive, materialistic world views” (Lugg, 2007, p. 99). Although these issues have been identified, Lugg (2007) argues that outdoor education is ideally placed to educate students towards sustainable relationships and the connectedness that comes with them, stating,

This notion of ‘connectedness’ is critical to understanding ecological perspectives of the world and of sustainable ways of living *in* and *with* the world. Outdoor education, unlike many other forms of ‘indoor education’ is in a unique position to offer experiences that *may* engender awareness and understanding of human connectedness to other forms of ‘nature’. (p. 106)

Lugg (2007) suggests that in order to achieve an awareness and connectedness to nature, outdoor education needs to embrace a critical paradigm which offers alternative world-views and practical approaches to sustainable living. Martin (2008b) supports this position in his suggestion that outdoor education is “ideally situated to pursue and embrace ecological literacy as a disciplinary core” (p. 35). Ecological literacy is a key component of sustainable living and involves having understanding of, and acting in ways, which recognise humans interconnectedness with the planet and non-human nature. Martin (2008b, p. 37) translates ecological literacy into outcomes for outdoor education, stating that an ecologically literate student is someone who:

- Is comfortable outdoors;
- Seeks encounters with nature for recreation and health;
- Has the knowledge and skills to safely and enjoyably explore nature while minimising impact;
- Has a well developed understanding and sense of place from both personal experience and academic investigation;
- Understands and values interrelatedness between humans and nature (systems thinking);

- Nourishes community and connection to place;
- Has a deeply felt concern, even love, for the well being of the Earth and all living things (Stewardship);
- Maintains sustainable environmental beliefs and practices informed by the principles of ecology, critical thought, judgment, and action.

The call for a stronger alignment with sustainability outcomes for outdoor education has also come from the British context through the work of Nicol (2002a; 2002b; 2003). He critiques traditional notions of outdoor education based on philosophies of personal and social education through adventure activities, and proposes an alternative philosophical framework which embraces environmental or sustainability education. This alternative framework is based on the concepts of deep ecology and an epistemological position which recognised four ways of knowing as essential to holistic learning. Nicol (2003) summarises his position, stating “through experiential, presentational, propositional, and practical ways of knowing outdoor education can take its place in delivering outcomes relating to sustainability education, sustainable living or environmental education” (p. 24). In the North American context O’Connell et al. (2005) advocate for a stronger sustainability education presence in outdoor education programmes arguing that “the outdoor recreation profession can contribute toward sustainable places and sustainable living through deliberate design, practices and educational approaches that are ecologically sensitive and that promote social justice” (p. 82). O’Connell et al. (2005) propose a framework for sustainable outdoor educators based on Lefebvre’s (2000) sustainability education evaluation criteria (see O’Connell et al., 2005 for further details).

In addition to shifts toward education for sustainability, placed-based approaches have become more prominent in outdoor education literature. An example of this is Payne and Wattchow’s (2008) conceptualisation of slow pedagogy. This concept offers an alternative to the dominant logic of traditional outdoor education which tended to pass through or over places rather than pause or dwell in them. Payne and Wattchow (2008) describe slow pedagogy as a post-traditional outdoor education approach, which shifts the focus of outdoor learning experiences from activities to the “locus and scope of experience as it is shaped by nature’s places, time, and space” (p. 35).

Adopting critical socio-ecological and sustainability approaches is emerging in the New Zealand outdoor education context. Boyes (2000) suggests that critical approaches to outdoor education are important to further the socio-ecological perspective that underpins the New

Zealand Health and Physical Education curriculum. In this sense he advocates for the examination of social and environmental factors that affect health and well-being along with a holistic education where proactive links are established between natural and social environments. In order for this approach to be embraced in New Zealand, traditional conceptions of outdoor education and the assumptions which underpin thinking and practice need to be critically examined. The work of Brown has made a significant contribution in this area.

Through a series of articles, Brown (2008a; 2008b; 2009; 2010; Brown & Fraser, 2009) has sought to challenge assumptions, re-conceptualise outdoor education practice, theory and pedagogy and offer alternate possibilities which embrace situated and place-based perspectives. A key part of this process is challenging the centrality of risk in outdoor education. Brown and Fraser (2009) argue that “while risk taking has a part to play in learning, the predominance of risk as central in outdoor adventure education pedagogy creates a potentially limited construct that diminishes the learning possibilities for students” (p. 69). They suggest the seductive allure of risk might lead to personal development outcomes such as physical endurance, courage, and leadership, but obscures other learning foci which connect students with their social and environmental contexts. Brown also critiques and challenges other assumptions which have been dominant in traditional outdoor education such as concepts of comfort zone (Brown, 2008a), transfer (Brown, 2010) and experiential learning models (Brown, 2009). In the later, Brown (2009) critiques experiential learning theories suggesting they create two problematic binaries which decontextualise learning. First, abstracting meaning from experience through rational reflection, which works to enhance a mind / body dualism or split; and second, separating the learner and learning from the situation in which it is placed. As an alternative Brown (2009) suggests learning is inextricably linked to the nature of activities and the places where these are situated. To be situated, according to Brown (2009) “is to be located in a place which is ascribed with social and cultural-historical meanings which, combined with the physical features, afford and constrain activity” (p. 8). Brown’s position here is supported by his previous work which advocates for a place-based approach to outdoor education which works towards reviving and sustaining places. In this article Brown (2008b),

challenges the conception that outdoor education requires ‘high-impact’ adventurous activities, instead suggesting that we need to seek a modest pedagogy which acknowledges our relationships with place(s) as a way to understand who we are, how

we connect to others and how we both give and take meanings from the places in which we live and learn. (p. 7)

The critical work by Brown is important to this thesis which seeks to challenge the status quo of traditional outdoor education. His articulations, however, move beyond critique to provide insights for a re-visioned or alternative outdoor education pedagogy based on connection to place and sustainable relationships. Also engaged in this work is Irwin (2008a; 2008b; 2010a) who suggests that the way outdoor education is perceived changes when education for sustainability is incorporated into outdoor education thinking and practice. These changes work to make outdoor education more critical, more political, and more action oriented towards a sustainable future. Irwin (2008b) argues that outdoor education should be more closely aligned with education for sustainability and this should;

Aim to develop critical thinkers who are empowered to challenge the beliefs and norms that underpin the realities of developed society relating to the unsustainable nature of that society. . . As such, education for sustainability is very much a political action and can be perceived as promoting a counter cultural perspective. . . Thus sustainability education engages individuals in a process of creating their own decisions about how to live, a process that involves by definition conflict and contestability. (pp. 44-45)

Irwin (2010a) recently completed his PhD, which investigated the complexity of organisational change towards more sustainable ways of practicing outdoor education. As the planet enters the second half of the *United Nations Decade of Education for Sustainable Development* work such as this, which seeks to more effectively educate for a sustainable future, is vital. Within New Zealand this type of research and literature is growing. The next section will explore some of this literature, particularly concerning New Zealand school contexts.

Education for Sustainability in New Zealand Schools

As stated earlier in this chapter, a disjuncture between outdoor education and environmental education in New Zealand has led to these areas developing in relative isolation over the last two decades. It is therefore appropriate that this chapter explores in a concise manner, the emergence of education for sustainability (EFS) and environmental education (EE) traditions⁸ in New Zealand schools. Like outdoor education, EFS in New Zealand has not

⁸ Although the terms environmental education (EE) and education for sustainability (EFS) are often used interchangeably they do have different philosophical underpinnings (see Chapter 2 for further insight into EFS).

developed in isolation; rather it has been influenced by international trends, debates and concepts. It is beyond the scope of this chapter to enter into these discourses; however, it is important to acknowledge the significant body of literature that exists in this area⁹.

According to Eames, Cowie, and Bolstad (2008), environmental education has been developing in New Zealand since the 1970's through political lobbying and grass roots practice in schools. Progress during this time has been punctuated by several significant initiatives. In 1993 'Enviroschools' began, which according to Eames et al. (2008), is "one of the country's most successful and sustained grassroots EE initiatives" (p. 36). Despite funding threats from the current National Coalition Government, Enviroschools remains a successful whole-school approach to practical sustainability education, with more than 680 or one quarter of New Zealand schools involved in the programme. The second key initiative was the publication of *Guidelines for environmental education in New Zealand* (Ministry of Education, 1999a). According to Eames et al. (2008), this document did not make environmental education a compulsory part of the curriculum although it did provide direction and examples for integrating EE into the learning areas of the curriculum.

Despite these initiatives and a legitimate place in the curriculum, Eames et al. (2008) suggest that environmental education / education for sustainability exists on the periphery of the current compulsory school curriculum. They suggest that while there are examples of highly effective environmental education practices in some schools, there remain significant challenges to developing ongoing curriculum based education for sustainability programmes. The foremost of these challenges, according to Eames et al. (2008) include: "the absence of a school-wide approach to EE, a perception of an 'over-crowded' curriculum, resourcing challenges, and difficulties creating and maintaining productive links with environmental education groups" (p. 47). Law (2005) believes there are greater challenges for education for sustainability in New Zealand, which exist at a political level, such as: no mention of EFS in the government's *Programme of Action*, the nature and structure of formal schooling, and mechanistic and transmissive approaches to teaching and learning. Law (2005) suggests "education requires a deeper critique and a broader vision to ensure a sustainable future. Thus, a whole system

In the New Zealand context EE has been the dominant conception although it is evolving into EFS in recent times.

⁹ See for example, journals such as *Environmental Education Research*, *International Journal of Sustainability in Higher Education*, *Canadian Journal of Environmental Education*, *Australian Journal of Environmental Education*, and *Journal of Education for Sustainable Development*.

redesign needs to be considered to challenge existing frameworks and shift our thinking beyond current practice and towards a sustainable future” (p. 280).

As New Zealand schools work to implement the revised *New Zealand curriculum* (Ministry of Education, 2007a) Eames et al. (2008) remain optimistic about the ability for education for sustainability to fulfil many of the intentions of the curriculum, particularly its future focus. I share this optimism, and have discussed this in a previous section of this chapter. In addition to opportunities afforded by the New Zealand curriculum, there are several recent initiatives which have the potential to strengthen education for sustainability in schools. These include: the ongoing development of the education for sustainability kete on the Te Kete Ipurangi (TKI) website¹⁰ (Ministry of Education, 2010); the publication of the education for sustainability Senior Secondary Guide (Ministry of Education, 2009b); the development of education for sustainability achievement standards at levels two and three (year 12 and year 13) (New Zealand Qualifications Authority, 2010); and the production of whole-school approach and action competence frameworks (Eames, Barker, Wilson-Hill, & Law, 2010). These initiatives, sit within the wider context of international trends, declarations and strategies such as the *Bonn Declaration* (UNESCO, 2009) and the *Strategy for the second half of the United Nations decade of education for sustainable development* (UNESCO, 2010). Such developments, alongside the tireless work of committed teachers and professional associations such as, New Zealand Association for Environmental Education (NZAEE) and Education Outdoors New Zealand (EONZ), suggest that the goal of educating for a sustainable future is making some headway although there are constant struggles with the neo-liberal agenda which currently dominates New Zealand education.

Conclusion

The United Nations decade of education for sustainable development (2005-2014) called for “a new vision of education that seeks to empower people of all ages to assume responsibility for creating a sustainable future”(cited in Eames et al., 2010, p. 1). What role is education outdoors having in bringing about “a new vision of education” and how is it contributing towards a sustainable future? This chapter has sought to explore some of the socio-historical constructs, and complexities which contribute to possible answers for this question.

¹⁰ The TKI website is the New Zealand Ministry of Education online resource for teachers and schools.

Outdoor education in New Zealand sits with wider contexts of global and local educational influences as this chapter has outlined. At the local level these include New Zealand's colonial heritage and historical narratives of adventure, progressive and conservative education movements, neo-liberal reforms, dominant views of outdoor education as adventure pursuits, disjuncture between outdoor and environmental education, and emerging education for sustainability initiatives. Global influences in outdoor education include the strong personal and social development discourses, the dominance of outcomes based research, and movements such as Scouts and Outward Bound. There is also an emerging discourse in outdoor education that calls for the adoption of critical socio-ecological perspectives and education for sustainability agendas. In order for this discourse to shape outdoor education thinking and practice, there needs to be change which challenges the assumptions and traditions of outdoor education. This reflects the aims of this research thesis which seeks to critique dominant conceptions and re-vision education outdoors through principles of eco-justice and sustainability.

A key part of re-envisioning 'education outdoors' is to examine the way in which outdoor education experiences and programmes are shaped and constructed. There are no one-size-fits-all solutions that can be applied as an easy fix. This process will take the considerable effort of outdoor educators reflecting and working together to make change. One of the ways this may be achieved is through the use of collaborative action research and professional development with teachers and educators. The next chapter examines some of the methodological possibilities and outlines a research design for this project which aims to re-envision the status quo and help develop sustainable approaches to outdoor education in Aotearoa New Zealand.

Chapter 4: Towards a Critical Inquiry – Methodology and Research Approach

Introduction

The previous two chapters have provided a theoretical framework and a contextual overview for this thesis. As discussed in Chapter 3, dominant notions of outdoor education in Aotearoa New Zealand, characterised by risky adventure pursuit activities and personal growth discourses, have developed to be largely separate from the aims of education for sustainability. Re-envisioning dominant conceptions of outdoor education through principles of eco-justice and sustainability reflect the primary aims of this project. These aims sit within a broader critical paradigm, as outlined in Chapter 2, which underpins the research philosophy and methodology adopted in this study. The dual aims of critique and re-envisionment of outdoor education in Aotearoa New Zealand were guided by the following research questions:

1. How do deep cultural assumptions influence and interact with conceptions of outdoor education in the New Zealand secondary school context?
2. How can outdoor education be re-envisioned through eco-justice and sustainability principles to more effectively educate towards a sustainable future?
3. What role can collaborative action research play in facilitating professional learning and development for teachers which involves thinking and practice based on sustainability principles?

This chapter discusses the research approach adopted in this project and how it employed bricolage as a methodological framework to examine these research questions. Initially it explores how the research approach was informed by the epistemological and ontological considerations of bricolage. The chapter then details how critical ethnography and participatory action research methods were employed in the three phases of the research process. This is followed by an examination of my reflexive role as a critical researcher with some final sections providing specific details of teacher research-collaborators involved in the project, how research information was gathered, interpreted and used, and how ethical considerations were addressed.

In practical terms, drawing on specific understandings and research tools from critical ethnography and participatory action research methodologies, this project worked

collaboratively with a group of eight outdoor educators who taught in either the secondary or tertiary education sectors in Aotearoa New Zealand. The aim of this inquiry was two-fold: First, to engage teachers in a process of critique that examined how deep cultural assumptions might influence and interact with their thinking and practice. This included reflection on the possibilities and opportunities for eco-justice and sustainability in their current outdoor education programmes and practices. Second, to engage educators in participatory action research which challenged the status quo of dominant concepts of outdoor education, encouraged the exploration and implementation of new ideas, and evaluated the professional development process by which these changes were made.

A Research Approach Informed by Bricolage

At both philosophical and pragmatic levels, bricolage as a methodological framework provides a lens through which to interpret and understand the methodological, ontological, and epistemological implications of this critical research project. The interdisciplinary concept of bricolage (Denzin & Lincoln, 2005; Kincheloe, 2001, 2005) seeks to recognise the complexity of the lived world and explore the issues surrounding qualitative attempts to capture people's lived experiences. It also allows critical qualitative researchers the flexibility to utilize and adapt a variety of methods or tools by which to achieve the aims and questions of particular pieces of research. Employing bricolage as a methodological framework or philosophy of method in this thesis not only informed the knowledge production process, it has also enabled the use of critical ethnographic and participatory action research methods and tools to meet the dual aims of critique and transformation.

The concept of bricolage, first conceived by Levi-Strauss (1966), was brought into popular view within research methodology through the work of Denzin and Lincoln (2000) and has been further conceptualised by Kincheloe (2001; 2005). Qualitative researchers who employ bricolage can be understood through metaphors such as "jack of all trades" (Denzin & Lincoln, 2005), or "handyman / handywoman" (Kincheloe & McLaren, 2005). These metaphors describe a researcher who is able to gather together and employ whatever strategies, methods and empirical tools are needed to carry out a particular inquiry. In this research project, bricolage as a methodological framework was used to draw together the traditions of ethnographic and action research in ways which were committed to a critical, collaborative, and reciprocal research approach. The specific aspects and tools from critical ethnographic and participatory action research methodologies, which were employed in the three phases of the research

process, will be discussed in the next two sections. At this point it is important to consider the epistemological and ontological implications of bricolage as a methodological framework.

Bricolage exists within an academic world characterised by blurred boundaries. In this interdisciplinary context bricolage is concerned not only with multiple research methods, but also understandings of knowledge as a socially constructed product. Kincheloe (2001) argues that researchers who employ bricolage in social, cultural, and educational domains “operate with a sophisticated understanding of the nature of knowledge. . . [which] realises that knowledge is always in process, developing, culturally specific, and power inscribed” (p. 689). This understanding informed the research approach used in this project and recognises that subsequent knowledge claims from it are characterised by complexity and subjectivity rather than certainty and objectivity. In embracing complexity there is an acknowledgement of the active role both teacher research-collaborators and I have played in shaping our own lived realities and the impact of these in creating the research processes. Despite the recognition of the subjective roles of researcher and researched, understanding the complex relationship between knowledge and reality is a challenge, especially when “knowledge and reality change both continuously and interdependently” (Kincheloe, 2005, p. 326). This is further explained by Kincheloe as he states,

Here rests a central epistemological and ontological assumption of the bricolage: The domains of the physical, the social, the cultural, the psychological, and the educational consist of the interplay of a wide variety of entities – thus, the complexity and the need for multiple ways of seeing advocated by bricoleurs (p.327).

The multiplicity and complexity of bricolage described above engender a position which is sceptical of reductionist or essentialist research approaches and claims. In contexts which inherently carry with them multiple voices or perspectives, simple or tidily packaged answers to questions are often not possible or appropriate. The complexity that characterises bricolage as a methodological framework carries with it certain embedded epistemological assumptions, according to Kincheloe (2005, p. 328-330), which are worth listing at length. Bricolage recognises:

- a distrust of universalism;
- that words and phrases mean different things to different people;
- that research objects are not fixed or static;
- that contextualisation of research is crucial;
- that there are different historical and cultural ways of viewing similar phenomena;

- that discursive practices are always present in knowledge construction;
- that facts never speak for themselves – interpretation is always at work;
- that cultural assumptions often ‘wander unnoticed within the act of researching’;
- and that there is a complex relationship between power and knowledge.

Dealing with a landscape of complexity requires, according to Kincheloe (2005), an ontological and epistemological map that aids understanding. He refers to this map as a double ontology of complexity. In the first instance this recognises that there is complexity in the object of an inquiry. In other words, that within the web of reality there are different positions or vantage points from which objects or phenomena will be viewed differently. This is certainly the case with dominant and contested notions of outdoor education which were discussed in Chapter 3 and are further explored through the perspectives of teacher research-collaborators in Chapter 5. The second aspect of an ontology of complexity recognises the social construction of human subjectivity. That is, the connections between individuals and their contexts shape both human identities and complex social fabrics. According to Kincheloe (2005), this has implications which suggest research design and methods cannot be separated from the way reality is construed. Therefore ontology and epistemology are inextricably linked in ways that shape the task of the researcher. The ontological and epistemological position of bricoleurs is further enlightened by Kincheloe (2005, p. 337) as he states,

Realizing the dramatic limitations of so-called objectivist assumptions about the knowledge production process, bricoleurs struggle to specify the ways perspectives are shaped by social, cultural, political, ideological, discursive, and disciplinary forces. Understanding the specifics of this construction process helps multiperspectival researchers choose and develop the methodological, theoretical, and interpretive tools they need to address the depictions of the world that emerge from it. (p. 337)

The epistemological and ontological positions of bricolage, as explained above, have implications for this research project. Employing bricolage as a methodological framework has created messiness in the research process where I have had to negotiate both my own and my teacher research-collaborators subjectivities and value-laden positions. Recognising multiple voices and lived-experiences within my research group has had implications for both the research process and the way that I have presented findings in this thesis. Understanding that critique and change would be context and person specific was an important consideration in the research approach. The contextual nature of my research was very unlike an intervention action research study where educators might implement standardised action plans. In this research,

each teacher research-collaborators efforts to incorporate eco-justice and sustainability principles into their teaching were different. There was no recipe, best way, or magic answer.

Conducting critical research within a bricolage methodological framework which employed elements of critical ethnography and participatory action research had its challenges. As Robottom and Sauv  (2003) insightfully suggest, “nothing is easy in participatory project research; in part, it is a matter of balancing opportunities and constraints while operating flexibly within a set of guiding principles based on certain epistemological, ontological, and ideological assumptions” (p. 117). An epistemology and ontology of complexity which influenced all aspect of this research process inevitably leads to outcomes that are highly contextual. Claims to generalisability are unsustainable, as Robottom and Sauv  (2003) remind us. The implications for the research process suggest an understanding of the emergent nature of this project is important. With bricolage there is no recipe to instruct the use of methods or tools in a prescriptive manner. The research approach adopted in this project, therefore, became multifaceted and was nuanced with tension where it sought to fulfil the dual aims of critique and transformation of outdoor education in Aotearoa New Zealand through eco-justice and sustainability.

At a pragmatic level, bricolage was used to weave together critical ethnographic and participatory action research methods and tools to meet the aims of this research. This approach resulted in a three phase research process which took place over a thirteen month period from November 2008 until December 2009. Phase one was concerned with ascertaining and critiquing the status quo for teacher research-collaborators and unpacking the role of deep cultural assumptions in outdoor education through critical ethnographic methods. Phase two involved facilitating pedagogical change through professional development and action research. Phase three involved reflection and evaluation of the research process and potential for outdoor education to educate for a sustainable future. The phases in this research process did not necessarily follow a neat linear path or have distinct junctures. In this way the professional development and action research process used in this project is analogous to a learning journey where people learn over time and seldom in a linear fashion. It is important to note at this point that as professional educators, the people in the research group were already on a learning pathway in regards to sustainability. Many of them sought other learning opportunities about sustainability during the course of the research process. It must therefore be recognised that the professional development workshops and action research in this project were an important part of bringing about change in thinking and practice but were not necessarily an exclusive

catalyst.¹¹ More detail of the influence that critical ethnographic and participatory action research methodologies played in this research approach are discussed in the following sections.

A Basis for Critique: Employing Critical Ethnography

This section explores how critical ethnographic methods and considerations were employed in the first phase of the research approach. Phase one was concerned with ascertaining and critiquing the status quo for teacher research-collaborators in regard to their perceptions of outdoor education and sustainability. In particular this phase enabled me to gain an understanding of the contexts for each of the teacher research-collaborators, including the background to their programmes and pedagogy. It also aimed to capture teachers' initial understandings of how outdoor education is influenced by deep cultural assumptions and the potential of outdoor education for educating for a sustainable future. Whilst more specific details of phase one are presented in a later section and accompanying appendices, this section briefly identifies some of the historical contexts of the ethnographic tradition and examines how postmodern and critical developments within ethnography have been adopted in this research project.

Ethnography is an eclectic concept which has its roots in anthropology (Creswell, 2002; Jordan & Yeomans, 1995; M. Smith, 1992). According to Jordan and Yeomans (1995), nineteenth century ethnography was closely associated with colonialism and imperialism and contained nuances of otherness, subordination, and marginalisation. Although ethnography methods and epistemological assumptions are subject to contestation and development, Kincheloe and McLaren (2005) suggest modern or contemporary ethnographic research can be associated with constructed authoritative cultural accounts or realist representations linked to post-positivist paradigms. These tendencies can be linked to issues of narrative realism¹² and representation which have been problematised by writers such as Jordan and Yeomans (1995) and Clough (1992).

¹¹ The complex relationship between professional learning and development in this project and other learning opportunities or sources for teachers is discussed in further detail in Chapters 7 to 12.

¹² Narrative realism refers to the tendency for researchers to claim narrative authority and make realist representations which can contain a “thunderous silence over the ethnographic subject” (Jordan & Yeomans, 1995, p. 393).

Issues of narrative realism and representation relate to a researcher's relationship with those who are 'researched' and how their lived experiences and understandings are captured, interpreted, and written about. Creswell (2002) suggests that ethnographic researchers can no longer be considered objective observers, nor have sole responsibility for interpretation of social or cultural groups, nor be the only voice that is heard in the complex lived reality of those groups. As has been discussed in a previous section, the complex epistemological and ontological positions occupied by a bricolage methodological framework have led me to confront issues of representation and recognise multiple subjective voices within this critical qualitative research. This links to the moderate oppositional postmodern position of an eco-justice and sustainability theoretical framework described in Chapter 2, which recognises multiplicity, diversity of perspectives, and the plurality of socially constructed norms, behaviours and patterns of thinking. Consequently, postmodern and critical approaches to ethnography are suited to this project.

Postmodern ethnography, according to Jordan and Yeomans (1995) is framed by postmodern conditions, such as plurality, multiculturalism, complexity, and difference. They suggest that postmodern ethnography produces a "polyphonic" text consisting of multiple participant voices which interact in a reflexive relationship with the voice of the researcher. The concept of postmodern ethnography is further elaborated by M. Smith (1992), who suggests that it directly involves the subject or participant in a collaborative approach to the production of meaning – a kind of "cooperative story making". He argues that postmodern ethnography asks the big questions to little people and that it uncovers "a story produced by mutual dialogue rather than imposed by an authorial script" (M. Smith, 1992, p. 507). These considerations were important in the writing of Chapters 6 to 11 of this thesis where the intent was to work together cooperatively with each of the teacher research-collaborators to represent an authentic account of their experiences in this research project. Each of these narratives are presented independently so-as-to maintain their contexts and voice.

However, Kincheloe and McLaren (2005) remind us that ethnography must be more than the reanimation of local experience and go beyond an uncritical celebration of difference or multiple perspectives. As Jordan and Yeomans (1995) argue, ethnography as part of a critical research process must embrace a political aspect. Although tensions may exist in approaches that claim to be both critical and postmodern I believe critical ethnography is commensurate with a postmodern position through embracing an oppositional approach. M. Smith (1992) advocates for postmodern ethnography which "constitutes an explicitly oppositional project" (p.

511). Kincheloe and McLaren (2005) argue that “resistance postmodernism can help qualitative researchers challenge dominant Western research practices that are underwritten by a foundational epistemology and a claim to universally valid knowledge at the expense of local, subjugated knowledges” (p. 326). A clear link can be made at this point between bricolage, postmodern critical ethnography, and the moderate oppositional postmodern position which underpins the eco-justice and sustainability theoretical framework, conceptualised in Chapter 2.

Bricolage creates new possibilities of critique for critical ethnography through a blurring or mixing of traditional disciplinary genres, and emphasizes on lived experience, subjectivity, reflexivity, and dialogue (Kincheloe & McLaren, 2005). However, Jordan and Yeomans (1995) suggest tension still exists between critical ethnography’s ability to meet both the criteria for academic success and the lofty goals of emancipation, raising of critical consciousness, and facilitating change. While this double bind is an issue for researchers, Jordan and Yeomans (1995) argue that critical ethnography has an important place in educational research stating, “critical ethnography stands as the only viable research approach that will allow teachers to critically engage and pose alternatives to the conservative pull of current educational reforms” (p. 401). It is therefore appropriate that elements of ethnography are employed in this research to critically engage with dominant notions of outdoor education. Particularly when educational systems in Aotearoa New Zealand have been subject to neo-liberal influence and reform over the past two decades.

The collection of data or research information in this project is also an important and pragmatic consideration. Creswell (2002) suggests data can be collected in a variety of ways in critical ethnographic research, including: casual conversation, semi-structured interviews, observations, focus group interviews/group discussions, and texts such as publicity material, programme plans, and policy documents. Carspecken (1996) also provides direction on data collection. His five stage model of critical qualitative research, which has made a significant contribution to the use of critical ethnography in educational research, is often used as a research design framework (see Hardcastle, Usher, & Holmes, 2006). Whilst the prescriptive nature of this model is not well suited to the bricolage approach used in this research, it gives some guidance to the ethnographic phase of this project. In particular, Carspecken’s (1996) advocacy for collection of dialogical data, where the researcher and participants work collaboratively to create authentic narratives, is an important consideration. Discussion of how these ethnographic tools and considerations are employed in the research approach of phase one is provided below.

Phase one: Ascertaining the status quo.

Unlike traditional ethnography, phase one did not rely heavily on observational techniques for several reasons, including: my position as an insider¹³, understanding the demands of secondary teaching, the high quality of my relationships with the research group, and limited time on behalf of the teacher research collaborators to spend with me. Therefore, research information in phase one was collected through casual conversations, a semi-structured interview (see Appendix A for interview guide), viewing departmental policies and programme plans, and activities in workshop one (see Appendix B for outline).

The first part of phase one was semi-structured interviews which took place in late 2008. Key interview questions were sent out to teacher research-collaborators before the interview to give them time to think. Analysis of interview transcripts, through deductive and inductive interpretations, identified a series of cross-case themes. Deductive themes were influenced or highlighted by an eco-justice and sustainability theoretical framework and subsequent interview questions. Examples of these themes (which are discussed in Chapter 5 in detail) included cultural assumptions in outdoor education such as, anthropocentrism, individualism, technological progress, and consumerism. Inductive themes emerged from the interview text through the semi-structured nature of the interviews and the willingness of teacher research-collaborators to share their experiences and thoughts. Examples of inductive themes included guardianship and care of the environment, connection to place, cross-curricular thinking, and personal identity and values. Information from interviews and resulting analysis was then used in workshop one as the second part of phase one.

A key attempt to generate dialogical data in phase one of the research process was the use of a post-it-note activity in the first workshop with my research group. Selected initial interview quotations from analysis themes were collated onto posters (see Appendix C for example) and placed around a room for part of workshop one. Teacher research-collaborators were given two hours to circulate around the posters to read, discuss and place comments, questions, and clarifications via post-it-notes. People were free to choose whether to complete this process individually or in pairs. This type of post-it-note activity is not a documented or common research tool; however, variations are often used as teaching and learning methods in education. The reason for using such a tool in this research was to encourage collaboration and

¹³ The notion of being an insider is discussed in more detail in a later section on p. 110.

engagement with the interview analysis by teacher research-collaborators and to attempt to gather research data which was dialogic in nature, that is, it reflected the voices of multiple perspectives through a process of dialogue. This dialogue was further enhanced through a focus group discussion which took place immediately after the post-it-note activity. Here the research group discussed the ideas, questions, and experiences that had been identified in the themed posters. This discussion was audio recorded and selectively transcribed to enhance, clarify and add richness to the themed analysis and discussion¹⁴. What is important to highlight here is the use of innovative research tools in this project, which were guided by critical ethnographic methodological principles such as dialogic data collection (Carspecken, 1996).

Workshop one also provided an overview of the whole project and introduced phase two and three of the research process which included professional development, action research, and evaluation components. These phases are outlined below and linked to the methodological understandings of participatory action research which influenced the research approach.

From Critique to Transformative Change: Employing Participatory Action Research

Phase two of the research approach was concerned with facilitating and enabling change in thinking and practice for teacher research collaborators. This action oriented approach to research contained two key parts. First, professional development opportunities were provided for teacher research collaborators, through workshops and readings, which increased their understanding of sustainability and how it might apply to outdoor education. Second, teacher research collaborators were encouraged to make change to their teaching programmes or pedagogy, through developing and implementing a unique action plan. As mentioned earlier these process were not discrete, rather they were emergent and intertwined. They were also influenced by other learning and development experiences outside of the immediate research group and process. Phase two was followed by a summative evaluation phase which sought to understand teacher research-collaborators perceptions of the impact of the research process.

Understanding the methodological basis of phases two and three and how it links to phase one is an important consideration which will be discussed prior to detailing the pragmatics of phases two and three. Guba and Lincoln (2005) have suggested that if critical research aims

¹⁴ Findings from phase one, including the post-it-note activity, which are primarily oriented towards research question one, are presented in Chapters 5 and 6.

to be emancipatory it must involve both critique and transformative change. This point is emphasised by Malone (2006) who argues that critical methodologies which are limited to critique can be confined to raising understanding but lack empowerment toward collective action. It is therefore useful to consider the links between critical ethnography and action research which have been advocated by a number of authors. Morrow and Brown (1994), for example, state;

One of the distinctive characteristics of critical research is that the kinds of questions asked relate to the dynamics of power and exploitation in ways that potentially are linked to practical interventions and transformations. Accordingly, from this perspective, engaged, participatory action research becomes a legitimate possibility, though not the exclusive basis for defining critical ethnography. (p. 257)

The view articulated by Morrow and Brown above is endorsed by Hemment (2007), who argues that participatory action research offers a means of reconceptualising ethnography to embrace a collaborative approach. In her study of Russian women, Hemment (2007) combined participatory action research with critical ethnography which enabled a two-fold approach or what she calls “critique plus” (p. 302). This involved both rethinking and problematising social and cultural interactions and engagement in an activist project. Malone (2006) advocates for participatory action research in both critical and environmental research suggesting that “the research is conducted collaboratively with the educator-(participant)-as-researcher who is involved in all stages of the research endeavour with the view of transforming or overcoming those constraints which frustrate rational change” (p. 380). Given clear links drawn in the literature between critical ethnography and action research, it is useful to discuss the key characteristics of participatory action research and explore their application to the research approach in this project.

Participatory and action research approaches have a strong relationship within education and more specifically environmental education (Le Grange, 2009). Within this context Jordan and Yeomans (1995) describe action research as “a form of research carried out by practitioners in order to improve the rationality and justice of (a) their own social and educational practices, (b) their understanding of these practices and (c) the situations in which these practices are carried out” (p. 402). Action research has a complex history summarised by four generations that

contain many strands, nuances, and variations.¹⁵ Throughout this evolution of action research a diverse and eclectic range of approaches developed which are summarised by Kemmis and McTaggart (2005) as participatory research, critical action research, classroom action research, action learning, action science, soft systems approaches, and industrial action research. For the purposes of this thesis the focus will be on participatory action research.

Participatory action research is an explicitly applied methodology, according to Hemment (2007), which is directly related to social change. She suggests that it is deeply concerned with structural inequality and is attentive to power relations inherent to the research process. This is supported by Kemmis and McTaggart (2005), who advocate that participatory action research is well placed to address the “malaise of modernity”, that is, the rampant individualism, disenchantment, and the dominance of instrumental reason. This idea is supported by Morrow and Brown (1994), who suggest that critical and participatory forms of action research provide a dialogical space “where challenges to the dominant order have been mounted and visions of alternatives projected” (p. 320). The key focus of participatory action research is articulated well by Kemmis and McTaggart (2005), who state, “participatory action researchers may be interested in practices in general or in the abstract, but their principle concern is in changing practices in the here and now” (p. 564). This change process can be described in three ways for research collaborators; change in the practices themselves, change in understandings of the practices, and change in the situations or contexts where collaborators operate. It is therefore highly appropriate that this research thesis, which challenges dominant conceptions of outdoor education and proposes alternatives through principles of eco-justice and sustainability, turns to participatory action research for methodological guidance.

According to Kemmis and McTaggart (2005) participatory action research has eight key features that guide its application. The first is the self reflective spiral, which represents an

¹⁵ The history of action research is synthesised by Kemmis and McTaggart (2005) who surmise that action research has developed through four generations in the twentieth century, beginning with social psychologist Kurt Lewin. Lewin’s work with the Tavistock Institute of Human Relations in the United Kingdom during the 1930’s gave impetus to action research movements in many different disciplines. A second generation of action research in the 1970’s, which built on the tradition of the Tavistock institute, began in Britain with the Ford Teaching Project. In the 1980’s a more explicitly critical and emancipatory form of action research developed in Australia and Europe, which Kemmis and McTaggart (2005) describe as the third generation. The fourth generation of action research, which linked critical and emancipatory aims with participatory action research, developed at a similar time in developing countries as a result of work of people like Paulo Freire.

action research process based upon planning a change, acting and observing the processes and consequences of the change, reflecting on those processes and consequences, and re-planning. This process is termed a spiral because it can be repeated a number of times in a research project. Kemmis and McTaggart (2005) remind researchers that in reality this process is far more fluid, open, and responsive, and that stages overlap or planning changes mid cycle due to immediate feedback. They suggest the criterion for success “is not whether participants have followed the steps faithfully but rather whether they have a strong and authentic sense of development and evolution in their *practices*, their *understandings* of their practices, and the *situations* in which they practice” (Kemmis & McTaggart, 2005, p. 563). The second key feature identifies *participatory action research as a social process*. This means an acknowledgement of the complex relationship between individuals and society, that is, how individuals are formed and reformed through their social contexts. The third feature of *participatory action research is that it is participatory in nature*; that is, it aims to engage people in all aspects of the research process. This may be an ideal notion, as Le Grange (2009) points out, the complex realities of participatory action research means that it is difficult to include research collaborators in all aspects of research, particularly conceptualisation, design, and presentation of findings. He suggests a disjuncture exists between the theory of participation and the realities of participatory action research as part of formal university research. Consequently, instead of idealised notions of participation, Le Grange (2009) suggests, “participatory action research is about the ‘art of what is possible’ given a myriad of constraints which mitigate against full participation” (p. 12). The fourth key feature of participatory action research, according to Kemmis and McTaggart (2005), is that *it is practical and collaborative*. Collaboration is integral in the participatory character of participatory action research, which according to Le Grange (2009) refers to “relations of cooperation, mutuality and reciprocity that exist between the researcher(s) and other participants” (p. 4). The fifth feature relates to the *emancipatory nature of participatory action research*. This implies a process where people explore how their practices are shaped and constrained by social, cultural, political, and economic structures, and considers interventions to overcome or resist these structures and constraints. The sixth feature is that *participatory action research is critical*. That is, it is a process where people set out to contest and reconstitute language, discourses, knowledge and power. The seventh feature is related to the *reflexive nature of participatory action research*. Notions of reflexivity are integral to any approach employing a bricolage methodological framework and are discussed in a subsequent section of this chapter, which explores my roles in the research process. The eighth feature is

that participatory action research aims to *transform both theory and practice* and reduce the dichotomy of these for practitioners.

In addition to identifying these key features of participatory action research, Kemmis and McTaggart (2005) remind researchers of myths, misinterpretations and mistakes of action research which can be clustered into three areas. The first of these relates to an exaggerated assumption about the level of *empowerment* that might be achieved through action research. In re-emphasising the power that comes from collective commitment, Kemmis and McTaggart (2005) argue that “authentic change, and the empowerment that drives it and derives from it, requires political sustenance by some kind of collective” (p. 569). This notion is supported by Gayford (2003) who suggests that teachers can be empowered by a process which encourages them to explore and develop their practice in a collaborative group of their colleagues. The role of the collective cannot be understated. Kemmis and McTaggart (2005) believe the collective is of critical importance to help synthesise, enhance, guide, and discipline social action of both individuals and collective groups. The second area of concern for Kemmis and McTaggart (2005) is a perceived research – activism dualism. They recognise the falsity and reject the assumption that research is dispassionate, informed, and rational while activism is passionate, intuitive and weakly theorised. This position is strongly supported by Malone (2006) who advocates for environmental education researchers to also be environmental activists. The third of these areas is concerned with the role of the research facilitator and illusions of neutrality. According to Kemmis and McTaggart (2005), emphasising facilitation as a neutral role produced epistemological issues such as blindness to the socially constituted nature of practices and that they are perceived differently by different people in multiple realities. Issues related to the multiple roles I fill as a researcher are discussed further in a subsequent section.

The next section gives details of how participatory action research informed the research approach in phase two and three through a series of workshops.

Phase two: Rethinking the status-quo

As already highlighted at the beginning of the previous section, phase two of the research process engaged teachers in professional learning and development workshops and the implementation of action plans in an attempt to rethink outdoor education practice and pedagogy. This process was emergent, contextual, at times messy, and was bound by many of the epistemological and ontological considerations of bricolage. Specifically, phase two was facilitated through a series of workshops which are briefly described below.

Workshop one, which was a key part of phase one also contributed to phase two. During the workshop teacher research collaborators were given access to a variety of articles and books and given time to discuss the role of reading in the professional development process. I also gave a presentation (see Appendix D) which covered some of the key theoretical and contextual concepts in the project such as eco-justice, sustainability, ecological literacy, and historical influences on outdoor education.

Workshop two (see Appendix E for outline) focused on participatory action research process through the development of action plans. I gave a presentation (see Appendix F) which outlined the action research and planning process. Time was then given for teacher research collaborators to develop their action plans. Specific in this process was the recognition of the unique contexts of teacher research collaborators and a commitment to ensuring the process was mutual and reciprocal through being useful and relevant to them. Consequently, each action plan was quite different. It must be noted that action plans were not all completed on this day. Some took considerably longer to develop and some encountered real challenges and constraints, as discussed further in the case-study narrative chapters. As Kemmis and McTaggart (2005) contend in their summary of key features, participatory action research is a cyclical or spiral process which seldom follows a neat linear path. This is evident in the action planning and implementation processes with most of the teacher research-collaborators in this study.

Workshop two also had a number of outside speakers to provide insight and expertise into sustainable practices and ways of educating. These included Dr Dave Irwin, lecturer in outdoor and sustainability education at Christchurch Polytechnic Institute of Technology (CPIT), NZ; Faye Wilson-Hill, education for sustainability advisor and consultant, Christchurch, NZ; and Jane Ellis, co-owner of Earth Sea Sky, a New Zealand outdoor clothing manufacturer. The invitation of these people to the workshop enabled the development of productive relationships. For example, at least one teacher research-collaborator attended further sustainability professional development run by Dr Irwin in 2009 and several others spent time working with Faye Wilson-Hill in their schools and on other education for sustainability programmes.

Workshop three (see Appendix G for outline) provided opportunities for teacher research collaborators to share their action plans (or progress on action planning) with each other. As part of this they were encouraged to reflect on the research process to date through a one-

pager¹⁶ (Appendix H). They then had the opportunity to share this if they chose. This was an important part of the collective and collaborative nature of this project and links to the thoughts of Kemmis and McTaggart (2005) discussed earlier in this chapter. I also facilitated an activity to stimulate thinking, discussion, and contribute to professional development process for the teacher research-collaborators, based on the question, Outdoor education: What are we educating for? This included two information handouts (see Appendices I and J)

Workshop four (see Appendix K for outline) was towards the end of phase two. It provided opportunities for teacher research collaborators to share ideas about actions they had been taking and for the research group to try to collate these into a sustainability toolbox. As part of this I distributed a handout (see Appendix L) which outlined practical sustainability focused initiatives I had been using while teaching outdoor education students at University of Otago, School of Physical Education. As the research time period neared its conclusion it was important to encourage the teacher research-collaborators to reflect on and evaluate their participation in the research project. This process is outlined in a description of phase three below.

Phase three: Reflection and evaluation

The final phase of the research process involved evaluating both the actions that teacher research collaborators had taken and the overall influence of the professional development and action research process. Of particular interest were teachers' perceptions of how the research process had impacted on their own thinking and practice, the people around them (their students, other staff, and local community), their relationships with the environment, and the potential for outdoor education pedagogy to help educate for a sustainable future. This phase incorporated two reflective or evaluative aspects. The first of these was workshop five (see Appendix M for outline) which provided opportunities for the research group to share the experiences and impacts of the research process. This workshop also helped to bring closure to the research process and allow time to discuss possible future initiatives. The second part of phase three was an individual semi-structured interview (see Appendix N for interview guide). Key questions for this were sent out prior to the interview via the workshop five outline.

¹⁶ One-pagers are a potential data collection tool for action research projects. Further explanation of one-pagers can be found in Appendix H.

Throughout the three phases of the research process described above, I was wrestling with and coming to better understand, my role as a critical qualitative researcher. As the literature in previous sections has illuminated, the research approach adopted in this study is influenced by value-laden subjectivities and multiple perspectives where there can be no illusions of neutrality. The following section captures key literature and personal reflections as I considered my multiple roles as a reflexive, critical researcher.

My Roles as a Reflexive Critical Researcher

The methodological considerations of bricolage, critical ethnography and participatory action research have been discussed in previous sections. These understandings exist within the broader context of critical theoretical perspectives and research paradigms which are described by Kincheloe and McLaren (2005) as an evolving criticality. Evolving criticality implies approaches to research which are no longer satisfied with the status quo and seek to uncover new ways to identify dominant power relations and challenge these in transformative ways. Through reflexive, progressive, and political understandings, an evolving criticality has informed my roles in this project. Kincheloe and McLaren (2005) describe a researcher informed by an evolving criticality as “an awkward detective always interested in uncovering social structures, discourses, ideologies, and epistemologies that prop up both the status quo and a variety of forms of privilege” (p. 306). The role of an “awkward detective” can be further elucidated by Creswell (2002) who suggests critical researchers: are politically minded people who seek to change society, recognise that research is value laden and therefore celebrate their biases, challenge the status quo, make connections to broader structures of social power, and seek to engage research collaborators in dialogue.

When working in a paradigm which recognises the value-laden nature of research, Kincheloe and McLaren (2005) suggest that critical researchers need to be self-consciously aware of the ideological and epistemological presuppositions that inform both their own subjectivity and the research process itself. Self-conscious awareness forces researchers to approach their projects with open hands, clearly identifying the values, agendas and politics that they bring with them. As Kincheloe and McLaren (2005) insightfully state, “whereas traditional researchers cling to the guardrail of neutrality, critical researchers frequently announce their partisanship in the struggle for a better world” (p. 305). An understanding and acknowledgement of one’s position and influence in the research process can be achieved through a reflexive approach to research. Reflexivity is described by Booth (2007) as “a heightened state of self awareness in which one is

self-conscious and self-critical in theoretical outlook and practice” (p. 53). A reflexive approach to research is advocated by authors such as Morrow and Brown (1994), Jordan and Yeomans (1995), Kincheloe and McLaren (2005), and Malone (2006). This approach recognises that the researcher is no longer separate from the object of the inquiry but is fully involved, making value laden decisions and interpretations. The concept of reflexivity is explained in its relation to research by Jordan and Yeomans (1995) who state,

Reflexivity represents ethnography’s attempt to resolve the dualisms of contemporary social theory, i.e. object/subject, theory/practice, action/structure and so on. It seeks to overcome these by asserting that the research act and its product are constitutive of, and not separable from, the everyday world. Reflexivity, therefore, operates on the basis of a dialectic, between the researcher, research process and its product. (p. 394)

The dialectic or two way process, described above by Jordan and Yeomans, is evident in the context of this thesis. Throughout the phases described earlier, my subjectivity and sensibilities influenced both the research process and teacher research-collaborators directly. But in a dialectic relationship the same research process and people influenced my own thinking, values, and pedagogy. Understanding these interactions as I tried to reflexively and pragmatically negotiate the domains of the theoretical, epistemological, and ontological, is captured in the following personal vignette.

As an educator, who taught in secondary schools for more than ten years and continues to teach at tertiary level, I am implicitly and personally involved in this project. At times my roles became messy and blurred between researcher and participant. When the teacher research collaborators examined their thinking and practice, I was involved in examining my own thinking and practice too. As the research group questioned the cultural assumptions that they brought to their outdoor education experiences, so too, I questioned my own cultural assumptions. As the research group sought to challenge the status quo, make change and realise the potential for outdoor education to educate for a sustainable future, I facilitated and guided this process. My personal values, assumptions, and beliefs influence this project significantly. I believe that cultural critique and social change through education is imperative if humans are to address issues related to ecological and social crises. I am personally, professionally and academically committed to principles of eco-justice and sustainability. I believe in radical, transformative, and holistic education which embraces eco-justice and works towards a sustainable future. I therefore have multiple roles in this project from critical researcher to colleague, educator, and activist. The way I negotiate these roles and articulate my position in my writing is largely a

product of my reflexivity. The recognition of multiple roles and the political nature of critical research is captured by Malone (2006) who suggests “as an environmental education researcher and an environmental activist I have a personal and professional commitment and responsibility to support and empower community members to be active in social and environmental change. I am engaging in a highly politicised act” (p. 378).

The political nature of critical and participatory research, articulated above by Malone, has further implications for the role of the research and their relationship with those who collaborate or participate in the research process. Jordan and Yeomans (1995) suggest that an action research approach can redefine the role of the ethnographic researcher, dissolving the distinction between researcher and subject in ways that avoid privileging the ethnographer. They argue that the expertise of the researcher “should not be privileged but set alongside whatever skills, experience and knowledge other participants bring to the pedagogical encounter” (Jordan & Yeomans, 1995, p. 402). A dismantling of the researcher-participant duality is, consequently, an important aspect of critical participatory research. This is manifest in this project through referring to educators involved as *teacher research-collaborators* rather than participants, along with adoption of a research process which was dialectical, reciprocal and mutually beneficial to all who were involved. The first point at which this dialectic process was evident was in the selection of a research group. This is described in the section below, which outlines the manner in which teacher research-collaborators were recruited and briefly introduces each of the teachers involved.

Interpretation and Representation

Thus far, this chapter has detailed a research process informed by a bricolage methodological framework which employed aspects of critical ethnography and participatory action research. As previously discussed, bricolage is underpinned by epistemological and ontological positions which recognise the socially constructed nature of knowledge and the complex relationships between individuals and their contexts in that process. Bricolage presents implications for the ways in which information gathered in this research was interpreted and then subsequently represented. Consequently, this section maps how the notion of bricolage has provided procedural guidance to the empirical chapters which follow. It does this in two ways. First, this section touches briefly on the issues associated with interpretation and representation as they pertain to critical qualitative research and bricolage. Second, it details the key ways that

issues of interpretation and representation were addressed in this thesis given the procedural guidance of bricolage.

Within the qualitative research tradition issues of interpretation and representation have received significant attention and theorisation over the last two decades. Whilst it is impossible to detail this vast body of literature, these issues are important enough to warrant some discussion at this point. In their summary of significant moments in the development of qualitative research, Denzin and Lincoln (2005) refer to the crisis of representation during the mid 1980s. The erosion of classical norms of anthropology which characterised this fourth moment of qualitative research brought about understandings that qualitative researchers could no longer objectively capture the lived experiences of 'others' and that 'field work' and writing or text were increasingly blurred into one another. According to Denzin and Lincoln this shift led to qualitative researchers seeking out new models of knowledge production, method and representation. Hand in hand with the crisis of representation was a crisis of legitimating. As new ways of interpreting and representing qualitative research evolved, the criteria by which they were evaluated as legitimate came under critical scrutiny. Grounded by this historical context it is useful to further consider issues of interpretation as they might apply to this thesis, followed by those of representation.

Interpretation is a defining feature of qualitative inquiry, which according to Patton (2002), involves the process of elucidating meaning from research findings. At a surface level this may seem a relatively simple task, however, in critical qualitative research interpretation requires a deeper excavation of the way that meaning is derived and constructed. Interpretations of research findings in this thesis are presented in Chapters 5 to 11. These chapters contain a mixture of narratives from both the researcher and the researched, in this case teacher research-collaborators. These narratives provide an effective way of understanding teachers' perspectives, given that teachers' practical knowledge is primarily in narrative form (Hart, 2008). However, telling stories is seldom enough. Hart (2008) suggests that the potential for teachers' narratives are revealed as researchers and teachers "delve beneath the surface to examine motives, implications and connections" (p. 227). This interpretative process of delving beneath the surface involves recognition of the way that field work and textual practice work to construct and reproduce relationships and personal identities (Hart, 2008). The experiences of teachers involved in this research are interpreted and presented in ways which expose and embrace the personal and pedagogical struggles they faced as they sought to reformulate aspects of their teaching and programmes to include sustainability objectives. These struggles

were framed and interpreted through the lenses of the eco-justice and sustainability theoretical perspectives presented in Chapter 2.

This interpretation process took place in both an ongoing and dialogical manner. It was ongoing in that it spanned across the interview, action-plan, and workshop phases into the writing (textual) phases of the thesis. It was dialogical in the sense that teacher research-collaborators and the researcher worked together in both workshop and interview discussions to derive and construct meaning together. Understandings of the complexity of bricolage also guided analysis and interpretation. Recognising embedded epistemological assumptions such as multiplicity of voices and the value-laden, subjective nature of knowledge production meant that it was important to avoid essentialist or universal claims to truth in the interpretations and discussions presented in Chapters 5 to 11. There was also a need to be cautious about the interpretations made. As Hart (2002) suggests it is important to reflexively “recognise limits to our interpretation within our own personal biases and context . . . [and] acknowledge the possibility of other interpretations based on other realities” (p. 153). Consequently the narratives presented in Chapters 5 to 11 seek to maintain an authenticity which reflected the lived experiences of teacher research-collaborators in this project. Moreover, there is a reflexive acknowledgment that interpretations of those experiences were influenced by the value laden positions of the researcher, as detailed in the previous section, and the choice of theoretical and methodological approaches employed. These issues of authenticity relate to both interpretation and representation in this qualitative project and are worth exploring further.

The blurring of textual and field work aspects of this critical qualitative research along with the use of narrative interpretations presented particular issues when considering the criteria by which this research might be evaluated as legitimate. A number of academics from within both environmental education and general qualitative research (Guba & Lincoln, 2005; Hart, 2002; Payne, 2009) highlight the importance for qualitative research which is interpretively rigorous. According to Hart (2002) this methodological rigor can be established in two ways; through trustworthiness and authenticity. Trustworthiness criteria focus on the quality of the findings or results and includes such things as the truth-value, applicability, and consistency within interpretations of findings. Authenticity criteria apply to the quality of research process and include such things as fairness, and ontological, educative and catalytic authenticity (Guba & Lincoln, 2005). Here fairness relates to inclusion of multiple voices within the research text which represent all stakeholder perspectives. Ontological and educative authenticity relate to a raised level of awareness, whilst catalytic authenticity is associated with the ability of an inquiry to

prompt action. Kincheloe, McLaren, and Steinberg (2011) expand on the notion of catalytic authenticity by suggesting that the critical qualitative inquiry informed by bricolage can be judged by the “degree to which research moves those it studies to understand the world and the way it is shaped in order for them to transform it” (p. 171). The evaluative criteria for truthfulness and authenticity discussed here were important considerations in the research strategies and interpretations of this study. Chapters 5 to 11 attempt to capture the complex and nuanced relationship between the researchers and teachers narratives in ways which were underpinned by fairness, collaboration and reciprocity. Moreover, it is through these narratives that aspects of ontological, educative, and catalytic authenticity become apparent. The interpretive narratives of individual teachers in Chapters 7 to 11 present highly personalised and contextual accounts of their lived experiences throughout the research process.

Issues of representation are also central to bricolage as a methodological framework and to the teachers perspectives discussed in Chapters 5 to 11. These issues can be reflected in questions such as: “Who is represented in this research and why? Who is doing the representing? From where?” (Payne, 2009, p. 71) Hart (2002) posits other representational questions such as: why is this story being told? Why was it selected? What are the motives and interests influencing the representation of this story? Whose voices are privileged or silenced? Whilst it is not my intention to address each of these questions per se, it is important to address the overall intent posed by these questions, particularly as it relates to the procedural nature of bricolage and the way I chose to represent research information in this thesis.

Issues relating to the reflexive nature of this project and how my perspectives and values influenced issues of interpretation and representation may never be fully resolved or packaged into a tidy compartment. The previous section of this chapter explored my roles as critical reflexive researcher and throughout this research process I have attempted to reflect critically on the self as researcher (Guba & Lincoln, 2005). My aims to both critically examine dominant notions of outdoor education and help teachers develop more sustainable approaches to their outdoor pedagogy influenced the way this research has been represented. Details of the teachers in the research group and how they self-selected into the project are provided in the following section. The issue to address here is how these teachers lived experiences in the research process were represented in the textual aspects of this thesis.

The findings chapters (5 to 11) of this thesis were structured in two different ways. Interpretations and findings in Chapters 5 and 6 were presented in thematic style based upon

themes that emerged from the initial interview and workshop in the first phase of the project. There were eight teachers involved in these aspects of the research and consequently all of their voices are represented in those two chapters. In Chapters 7 to 11, five teachers' experiences were offered in case study narrative form where each chapter was devoted to one teacher. This was a holistic and context sensitive way of organising and presenting findings (Patton, 2002). The rationale for representing teacher narratives in this form was based in the epistemological assumptions of bricolage which recognise that contextualisation within research is crucial (Kincheloe, 2005). Being 'true' and 'fair' to teacher research-collaborators professional worlds required a personalised and contextual representation which was afforded by the case study form. Three teachers were not represented in these chapters because of the limited role they played in the action research phases of the project. Details of these limitations are provided in the following section on teacher research-collaborators.

Issues of representation arose particularly within Chapters 7 to 11 where there were conscious choices about what stories would be told and from what perspective. Each of these chapters attempted to represent each teachers lived experience of the research process including successes, difficulties, tensions, contradictions, learning, and attempts at making change. The case studies follow a similar pattern based on four general themes which were constructed through dialogue in research workshops and interviews. These include teacher research collaborators perceptions of how the project influenced: personal values, understandings, and pedagogy; contexts, including students, colleagues, and programmes; their thoughts on the professional development and research process itself; and thoughts about the future of outdoor education and education for sustainability. Within these general themes, multiple specific perspectives emerged in an inductive way. In order to maintain authenticity and be consistent with the collaborative and reciprocal nature of participatory research and bricolage, there was also an attempt to write these chapters in a dialogical manner. In various draft forms each chapter was sent to the appropriate teacher research-collaborator to provide feedback and comment. The intent here was to move beyond the concept of 'member checking' (Creswell, 2002; Patton, 2002) into a more collaborative construction of these narratives. This process was met with mixed enthusiasm as the 'busy-ness' of teachers lives constrained some of them from fully engaging. At the very least teacher research-collaborators provided their approval of the narrative which had been written, which enabled me as the researcher to have some confidence about the authenticity of my interpretations and the way I had represented

their lived experiences. Given these important considerations it is now timely to introduce and detail the group of teachers who engaged in this research project.

Teacher Research Collaborators

As I conceptualised the theoretical and methodological influences in this project I began to understand that rapport and relationship would be key ingredients in collaborating with a research group in a critical and participatory manner. Prior to starting this research I had been teaching outdoor education and physical education in secondary schools for eleven years, the last seven of those at a school in Christchurch, New Zealand. During those seven years I had come to know a number of other educators throughout the city and held various levels of social capital there through my involvement in organisations such as Education Outdoor New Zealand (EONZ). As I considered both the practicalities of conducting ethnographic and action research, and the methodological implications of collaboration, reciprocity, mutuality, and participation I concluded that establishing a research group in Christchurch, where I enjoyed insider status, would be beneficial to the research process. Although referring to the context of indigenous researchers, Sherif (2001) discusses the notion of insider/outsider status for ethnographic research. Insiders share commonalities with research groups while outsiders can be distinguished by their difference. There are no clear-cut interpretations of insider status in the complexity and messiness of postmodern ethnographic and action based research, however, Sherif (2001) suggests advantages of an insider position such as access to and acceptance from research groups. She also raises questions around the boundaries imposed by the research process and the implications and tensions of being a partial insider. These questions and tensions were evident in both the selection of my research group and in the ongoing work with this group. The multiple roles I held as a critical researcher, combined with an insider status enabled credibility, building of rapport, trust, cooperation, and collaboration within the research group. It also produced some conflicts for me as I negotiated the notion of being a PhD researcher, and accompanying expectations or perceptions of expertise, with the reality that those collaborating in the research were my peers, colleagues, and friends. I was very aware of meeting perceptions and expectations, and providing a quality professional development and research process, whilst not wanting to appear as the 'expert' from 'outside' who imposed their values, ideals, and understandings on a group of professional educators. Being cognisant of this tension enabled me to maintain a positive insider relationship with the research group throughout the research process.

Selection of educators for the research group occurred in the following way. In mid 2008 I sent out an email to all outdoor education teachers in Christchurch through an EONZ mailing list, asking for expressions of interest of involvement in the project. From this initial contact, ten people replied who were subsequently sent a project information sheet and consent form (see Appendices O and P). The project information sheet made explicit the aims of the project, the research methods and professional development processes to be employed, and the expectations of teacher research-collaborators. After considering the nature and requirements of the project eight educators agreed to join the research group. At this point letters were sent to the principals of teacher research-collaborators schools to seek their support for the project (see Appendix Q). This purposeful self-selection by teacher research-collaborators was highly commensurate with a participatory approach to research and provided a group of people who were committed to the aims of the project.

The group of educators who collaborated in this project were generous, innovative, reflective, and insightful people who enabled this research to be successful. The group was dissimilar from those traditionally engaged in ethnographic or action research in that they all taught in different schools or institutions across one city. The extent to which this was a culture-sharing group therefore, can be contested and although many of the group were known to one another, their level of interaction was irregular prior to the research. They were, however, bound by commonalities such as a passion for outdoor education, a belief that it makes a difference in student's lives, and being subject to various ideas and concepts that dominate outdoor education thought and practice. They also shared concern for issues of sustainability and were interested in shaping their pedagogy to more effectively educate for a sustainable future. The values, experiences, and subjectivities that these teachers brought to the research process were highly beneficial to research findings however it was also not unproblematic. How the teacher research-collaborators chose to respond to questions and represent themselves given the aims of the project is of particular interest here. Given that they mostly held 'pro-sustainability' perspectives in a 'pro-sustainability' project it may have been difficult for them to respond in ways which departed from either the main tenants of the research group or from accepted understandings of sustainability principles and practices. It is also useful to acknowledge here the possibility of 'halo effects' (see Nisbett & Wilson, 1977) which may have influenced teachers' responses. As sustainability can be seen as a desirable and admirable goal, there may have been a reluctance to critically engage with it, therefore placing a 'halo' onto the

concept of sustainability and our engagement with it. After all who would speak against such a noble goal as a sustainable future?

At this point it is useful to introduce the teacher research-collaborators involved in the project. Pseudonyms have been used where teachers have been directly quoted in this thesis to protect the identity of themselves and their educational institutions. However, given the collaborative, reciprocal, and participatory aims of the project it is important to give recognition and status to the important role that teacher research-collaborators played in the research process¹⁷. This complex issue and associated ethical considerations will be discussed in a subsequent section. Below are brief contextual profiles for teacher research-collaborators.

Bryn is Teacher in Charge (TIC) of outdoor education at a medium-size urban state co-educational secondary school. Specifically his roles involve teaching outdoor and adventure education courses for a variety of students.

Josh is a lecturer in outdoor and environmental education at a New Zealand tertiary institution.

Mike teaches outdoor education and social sciences at a small urban special character state co-educational secondary school. Specifically he holds responsibilities for EOTC, outdoor education and some pastoral care.

Rachel is head of department (HOD) outdoor education at a large urban state co-educational secondary school. Specifically her role includes teaching physical education and outdoor education at Years 10 and 12, and managing five staff across seven different outdoor education classes.

Sophie is Teacher in Charge (TIC) of outdoor education at a medium-sized urban state co-educational secondary school. Specifically she has responsibility for an outdoor education academy catering for a mix of New Zealand and international students and a pastoral care role.

John teaches physical education and outdoor education at a large urban state co-educational secondary school. Specifically his role involves teaching outdoor education at Years 10 and 12. John took refreshment leave from his teaching position in June 2009 and consequently withdrew from the research group at that point.

¹⁷ Individuals in the research group have been named in the acknowledgements page at the beginning of this thesis.

Steve is Teacher in Charge (TIC) of EOTC for a private co-educational secondary school and is director of an outdoor education centre associated with that school. He also teaches outdoor education as part of a transition class for senior students. Due to an injury Steve had a more limited involvement in the action research phases of this project

Tom is a lecturer in outdoor and environmental education, and leadership at a New Zealand tertiary institution. Tom had a reduced role in the research group due to other commitments.

Further contextual information will be provided for five of the teacher research-collaborators in Chapters 7 to 11. These chapters present case study narratives of the action plans developed by these teachers and the how the research and professional development processes in the project influenced their teaching practices and understandings of sustainability as it relates to educating outdoors. Due to their limited involvement, case study narratives will not be presented for John, Steve, and Tom, although their voices feature in Chapters 5 and 6 which outlines teachers' perspectives on deep cultural assumptions, outdoor education, and sustainability, from the initial ethnographic phase of the research. How the research findings were analysed and interpreted for Chapters 5 to 11 is further discussed below.

Ethical Considerations

Ethical approval for this research was gained from the University of Otago Ethics Committee in 2008 before the empirical phases of the project commenced (Appendix O). Key parts of the ethics process were information and consent procedures. The purpose and aims of the inquiry along with requirements such as, approximate dates, amount of time, and work that might be required in each phase were outlined to teacher research collaborators via both email and an information letter (Appendix O). This included making clear that they would be able to withdraw from the project at any time for any reason. Consent was consequently obtained from the teacher research collaborators through a signed consent form (see Appendix P).

The confidentiality of research collaborators is the most difficult issue to confront within the small community of outdoor education in Aotearoa New Zealand. It was therefore appropriate for confidentiality to be negotiated both with the research group and individuals. Given the participatory and reciprocal aims of this research project it was considered to be beneficial for teacher research collaborators to be identified in some findings and subsequent publications. This identification could contribute to the status and kudos of the research

collaborators as recognition of their participation in a critical change project. This is evident in the naming and thanking of teacher research collaborators in the acknowledgments page at the beginning of this thesis. Teacher research collaborators were also named and acknowledged in a peer reviewed article (Hill, 2010a) which was published based on some of the findings presented in Chapters 5 and 6. It must also be noted that there are times when it is appropriate for teacher research collaborators to request anonymity. In these cases identities were hidden through the use of pseudonyms. These situations were negotiated by the research group. All decisions on confidentiality issues were based on open, honest communication regarding all possible uses of information including: thesis, journal and magazine publications, and conference presentations.

All original research information, e.g. interview recordings, notes, action plans, transcripts, and electronic sources will be kept for six months after the completion of the thesis and then either returned to research collaborators or destroyed.

Conclusion

Building on an eco-justice and sustainability theoretical framework this chapter has laid a methodological foundation for this research project. Using bricolage as a methodological framework it has drawn from the traditions of critical ethnography and participatory action research to develop a research design which meets the dual aims of the project; to critique dominant notions of outdoor education and re-envision outdoor education through principles of eco-justice and sustainability. This chapter has outlined the epistemological and ontological implications of bricolage, methodological considerations of critical ethnography and participatory action research, and the multiple and reflexive roles of critical researchers. These sections formed the basis for a research design which employed methods and tools from ethnography, action research, and some innovative techniques based on teaching and learning activities. Throughout this chapter there has been an attempt to capture and articulate a research process that is highly committed to collaboration, mutuality, reciprocity, and participation while fulfilling the dual aims of critical research; critique and transformative change.

The subsequent chapters will lead you through the thoughts, perceptions, and lived experiences of teacher research-collaborators as they were involved in this research process. Chapters 5 and 6 examine teacher research-collaborators perspectives on deep cultural assumptions, outdoor education, and sustainability, at the beginning of the research process. The case-study narratives in Chapters 7 to 11 explore the research process through the voices of

five individual teacher research collaborators. Chapter 12 then ties these threads together and makes conclusions regarding the research questions and future directions for re-envisioned sustainable approaches to outdoor education pedagogy in Aotearoa New Zealand.

Chapter 5: Exploring the Status Quo Part One – Deep Cultural Assumptions in Outdoor Education

Introduction

As seen in Chapter 3, the development of outdoor education in Aotearoa New Zealand has been contested; a journey in which dominant notions of outdoor education based on outdoor pursuit activities have emerged while other approaches have been marginalised. In this chapter, along with Chapter 6, the contested nature of outdoor education is explored through examining the influence of deep cultural assumptions and identified potential opportunities for sustainable approaches to outdoor education. These two chapters seek to ascertain the status quo, that is, how did teacher research-collaborators perceive and conceptualise outdoor education at the beginning of the research process? What did they see as the challenges, problems and strengths of current approaches to outdoor education? Taking stock at this point in the research process was important. In order to implement and evaluate change through action research it is important to ascertain the initial assumptions and perceptions of teachers involved in the project. Chapters 5 and 6 do this in two ways.

First, Chapter 5 examines how deep cultural assumptions influence and interact with current outdoor education thinking and practices in a dialectical manner. This chapter is informed by the theoretical perspective of Bowers (1995; 2001b; 2001d; 2003a) who frames deep cultural assumptions as root metaphors within hyper-consuming Western societies which work to reinforce and replicate social inequalities and ecological exploitation and degradation. Second, Chapter 6 considers the opportunities and possibilities for a re-envisioned outdoor education pedagogy, framed by concepts of eco-justice and sustainability. It also examines some of the constraints and enablers to sustainability within outdoor education, as identified during the early stages of this project.

Chapters 5 and 6 draw from information collected and analysed during phase one of the research which was outlined in detail in Chapter 4. The quotes from teacher research-collaborators used in these chapters, come from semi-structured interviews conducted at the beginning of this research process in late 2008 and a focus group in early 2009. The interviews sought to elicit responses from teacher research-collaborators regarding their conceptualisation of outdoor education and how they perceived concepts of eco-justice and sustainability might be applied to outdoor learning experiences. A full interview guide is available in Appendix A.

Information from these interviews was used in a collaborative activity and focus group discussion in workshop 1 (see Appendix B for outline) which provided additional data for these chapters.

Contested Notions of Outdoor Education

I contend that outdoor education in New Zealand secondary education is a contested notion, with a variety of perspectives and experiences expressed by teachers in this research group. The majority of programmes within the research group utilised a range of outdoor pursuit activities whilst including other aspects such as team building, risk management and some environmental education. Whilst it is problematic to generalise the composition of these programmes to secondary schools throughout Aotearoa New Zealand, they do provide a snapshot from Canterbury which may share some similarities with other regions. Most of the school-based outdoor education programmes in this research group were based largely on the subjectivity and experience of the teachers involved in them as highlighted by Rachel below.

We very much have our programmes to the strengths of our teachers. . . . At the moment the staff are very much tramping based. (Rachel, Initial Interview, December 2008)

The comment above reveals how Rachel structures her outdoor education programmes around the strengths of her staff, which in this instance are based on tramping and camping. From conversations with other teachers in the research group it is fair to suggest that this approach is not uncommon. This reveals in part how teachers' subjectivities influence the content and intent of their teaching and learning programmes. This is not dissimilar to the way that people view their relationship with and use of outdoor environments, as highlighted by Mike below.

I think there's a diversity of goals that people have within the outdoors. Some of them view it as somewhere that's spiritual and a place which is renewing and important for them. Others treat it as a gymnasium . . . and there's a whole lot of people who fit within the middle of that. . . I think there's a huge variation in terms of the way people approach the outdoors. (Mike, Initial Interview, Nov 2008)

Mike's comment reveals the diverse ways that people engage with outdoor environments. Whilst I believe Mike is referring here to the context of outdoor education, his sentiments might equally apply to outdoor recreation in people's leisure time. The perceptions

of Mike and Rachel above suggest a variety of views rather than one universal understanding of outdoor education in Aotearoa New Zealand. This is supported by Boyes (2000) and Brown (2006) who acknowledge that there remains semantic confusion over the terms associated with outdoor, adventure, and environmental education in Aotearoa New Zealand. Furthermore these contested notions of outdoor education are consistent with international trends discussed by scholars such as Nicol (2002a), who suggests, “outdoor education defies definition in terms of being a fixed entity of common consent, homogeneous over time and space” (p. 32). Mike also considers how the outdoor recreational and educational experiences of people are influenced by the beliefs, values, and goals they hold. As I have discussed elsewhere (Hill, 2010b), teachers’ beliefs about outdoor environments, and educational opportunities within these, often influence their pedagogy and programmes. Notwithstanding the influence of beliefs, it is important to acknowledge that people’s lived experiences in outdoor education and/or recreation depend upon a range of factors which come together in complex ways. This complexity is strongly influenced by dominant conceptions of outdoor education in Aotearoa New Zealand, which privilege personal and interpersonal development through outdoor pursuit activities as discussed in Chapter 3.

There is also diversity in the places and contexts where outdoor education occurs. Although the very term implies teaching and learning in outdoor environments there are significant portions of these learning experiences which take place in indoor spaces, particularly in secondary and tertiary education contexts. Outdoor environments as places for learning are also contested, as indicated again by Mike:

Outdoor education isn’t just about being away in remote areas. It can actually happen in urban city environments and often the person who is most concerned about being in the wilderness is the instructor or the teacher or the leader. (Mike, Initial Interview, Nov 2008)

Here Mike is challenging the taken-for-granted notion that outdoor education needs to take place in ‘pristine’ and often remote natural environments. He is suggesting that when considering learning opportunities for students in outdoor education, local and even highly urbanised environments can provide places for quality experiences. Furthermore, he suggests that locating outdoor education experiences in wilderness areas may come more from teacher expectation than students. I do not believe Mike is saying that beautiful and remote settings are inappropriate for outdoor education experiences. Rather he is suggesting that we need to consider the educative potential of local urban environments before jumping in vans and

travelling hundreds of kilometres. These sentiments are particularly pertinent given this thesis' engagement with sustainable approaches to outdoor education, and will be discussed further in the following chapters.

Through questioning the location of outdoor education experiences I believe Mike is challenging a long held assumption that has underpinned much outdoor education practice and programming. The identification and critique of these types of assumptions is important if outdoor education is to move towards a greater emphasis on eco-justice, and sustainability perspectives. The following sections seek to uncover and examine the influence of deep cultural assumptions on perceptions of outdoor education held by teachers in this research group.

Cultural Assumptions Woven Into the Fabric of Outdoor Education

The roles that deep cultural assumptions play in influencing outdoor education are often difficult to identify. By their very nature, assumptions are taken for granted, and they often wander un-noticed through narratives. It was therefore challenging to capture teachers' perspectives on how cultural assumptions interacted with their thinking and practices. Of particular interest from the findings of this project is the dialectic relationship between cultural assumptions and outdoor education. That is, considering the influence of cultural assumptions on notions of outdoor education in Aotearoa New Zealand, while at the same time understanding how outdoor education pedagogy can challenge these same assumptions. It is this complex relationship that this section explores.

Understanding the relationship between outdoor education and deep cultural assumptions has many layers. There are a multitude of taken-for-granted ideas which underpin international and local outdoor education theory and practice. Many of these have been subject to critique. For example, the work of Brown (2008a; 2009; Brown & Fraser, 2009) questions the central role of risk and outdoor pursuit activities and experiential learning models in outdoor education. Another example is the work of Brookes (2003a; 2003b) who challenges the idea of character building through outdoor adventure programmes. The critique of assumptions in this section draws on the work of Bowers (1995; 2001b; 2001d). In particular, it engages with how deep cultural assumptions such as anthropocentrism, individualism, technological progress, and consumerism, influence and interact with outdoor educators' ability to educate for a sustainable future.

Anthropocentrism

As Chapter 2 detailed anthropocentrism refers to a human chauvinism where humans see themselves as inherently separate from or above non-human nature, thereby leading to an exploitative and unjust relationship with land and place (Cronon, 1995; Seed, 1985). Teacher research-collaborators in this project were asked to describe the types of relationships with natural places facilitated through outdoor education experiences. It is important to note that not all relationships with natural places were described as anthropocentric although there was often an overt or implicit reference to anthropocentric tendencies in outdoor education activities or experiences. This is revealed in the comments below.

It's anthropocentric really isn't it? Like you were describing being a part of nature but generally we think we're different than nature and we do it, do to it what we want to do to it... I think that's what outdoor Ed's been like for sure. Generally I still think a lot of outdoor Ed is like that. (Tom, Initial Interview, Dec 2008)

I think we've been as an industry [outdoor education] guilty of - you go up there, you do the abseiling, you do all these things and you don't pay the slightest heed to the area you're in. (Steve, Initial Interview, Nov 2008)

Yeah, you're certainly using the outdoors as a stepping stone, you know. It's not there to be appreciated for itself. It's there as a, as a vehicle to umm... (John, Initial Interview, Nov 2008)

I think a lot of the time, activities are used in the outdoors because activities keep people busy. (Mike, Initial Interview, Nov 2008)

Here Tom, Steve, and John refer to the way that anthropocentric relationships with environments have been encultured within some traditional outdoor education approaches and practices, thus becoming an assumed and accepted, but largely unseen part of outdoor learning experiences. In particular this is evident through the use of adventure pursuit activities as described by Mike. These anthropocentric practices in the outdoors remain unseen because they are extensions of what is culturally accepted. New Zealand's colonial history has been built on pioneering and often confrontational relationships with land with inevitable tensions between exploitation and preservation (see Park, 1995, 2006; Pawson & Brooking, 2002). This historical perspective, coupled with western concepts of land ownership and capitalist economic systems, work to normalise and obscure anthropocentric ways of viewing the environment in post-

modern New Zealand society. This can occur through de-emphasising sustainable relationships with the environment, while promoting productivity and capital accumulation which is often at the expense of those same environments. One of the subtleties of assumptions remaining unseen is that often anthropocentric relationships are tolerated through recognising other admirable outcomes from these types of activities or experiences. This was highlighted in the conversation below about the focus on personal and interpersonal development in outdoor programmes based on traditional models such as those of Outward Bound.

Tom: Well its way better than just personal development and its way past skills but it's actually like we still use the bush for personal development, we use the kayaking you know.

Allen: Do you think this is anthropocentric in many ways?

Tom: Yeah, absolutely. And I'm guilty of that cause I'm fully committed to interpersonal / personal development and will use the outdoors for that.

(Tom, Initial Interview, Dec 08)

Here, I believe Tom is articulating a tension for outdoor educators who are committed to outcomes such as personal development yet also seek to include meaningful environmental aspects into their programmes and pedagogy. How to balance a variety of outdoor education learning outcomes with a commitment to educating for a sustainable future is difficult, particularly when some of those traditional outcomes have anthropocentric tendencies. An example of this is Tom's reference to "using the bush for personal development". Whilst personal learning opportunities are often an important part of outdoor education programmes it is important that these types of outcomes are facilitated in ways which take into account the ecology, history and cultural significance of the places where learning occurs. What becomes apparent at this point is the complexity of positions and relationships educators have with natural environments. It is problematic to place these relationships in binary terms of either anthropocentric or eco-centric and to somehow valorise or demonise one over the other. This complexity is illustrated by Steve;

You've got people who are working in the outdoor industry who are all, sort of greenies at heart, so in that respect in your interface with the students you bring some of your standards onto them. I haven't come across an outdoor instructor who throws litter around and things like that. But there again sometimes you shit all over the environment, putting great big steel

bolts in the environment and you're saying to the students that this is just a playground for us to come and use and walk away from. I think it [outdoor education] has been guilty of that. I think it is improving but it's got a long way to go. (Steve, Initial Interview, Nov 2008)

What Steve is suggesting here is that although outdoor educators often profess a love for natural places, there are contradictions at play in their practices. It is these contradictions that reveal difficulties when attempting to reposition outdoor education within an eco-justice and sustainability framework. One aspect which is central to educating for a sustainable future is helping students form ecologically and socially appropriate connections with places and communities. Anthropocentric tones within outdoor education learning experiences can marginalise opportunities for facilitating these types of connections. This is visible in the following reflections on some current outdoor education programmes and practices.

High thrill and low processing, so you don't have that connectiveness [sic] and I think that's really exploitative... So they're just a whole bunch of school kids get bussed into an area. We're doing this. . . We're going kayaking in the morning, ropes in the afternoon, orienteering in the morning, this at night time, bonfire. Boom, that's it. See you next year. (Sophie, Initial Interview, Nov 2008)

It is interesting in that you would expect us to have actually developed. . . there was this idea of, of conquering nature and conquering the mountain, and that we might have moved on a little bit in terms of our relationship with the environment in that way, but, no. I worry that the technology and stuff has kind of overtaken and there are a lot of people going out and doing this stuff, they're essentially urban people. They don't really have a lot of connection with the land and the outdoors. (Bryn, Initial Interview, Nov 2008)

Here Sophie is talking about how some outdoor education programmes might be structured around a certain way of facilitating outdoor pursuit activities which is “high thrill and low processing”, lacking “connectiveness [sic]” and “exploitative”. In my experience as an outdoor educator I have both been involved in and observed these types of programmes. As Sophie suggests, focusing primarily on the activity can be problematic in a number of ways. First, the high thrill low processing approach obscures the broad potential for student learning in outdoor

experiences. Second, the focus on a production line approach to activities can be exploitative of the environment where little consideration is given to ecological, cultural, and historical significance of places. Third, there can be a lack of opportunities for students to develop connections to the environment they are in and the people they are with. I believe it is reasonable to suggest that the activity production line approach to outdoor education programming described by Sophie is rooted in anthropocentrism.

Bryn's comment raises two interesting points. First, he talks about the anthropocentric notion of "conquering" nature. In Aotearoa New Zealand this notion is historically embedded through our colonial history and by famous comments such as Sir Edmund Hillary's "we knocked the bastard off" after climbing Mt Everest in 1953. Although Bryn suggests that "we", either outdoor educators or the general public, should have moved on from this, he feels that is not the case. On a recent outdoor education trip into the mountains with students I had an experience which supports Bryn's thoughts here. After climbing a peak several students shared how pleased they were to have "conquered that peak". Whilst I quickly suggested the mountain graciously allowed our presence, the notion of human's conquering nature was prevalent with those students. I believe the notion of "conquering" nature is an example or expression of anthropocentrism at work. When Bryn talks about "we" I interpret that to mean both outdoor educators and people in general. It is therefore not unreasonable to suggest that anthropocentric assumptions still wander unnoticed within outdoor education notions and practices. Second, Bryn draws links between people's lack of connection with outdoor environments, their urbanisation and the use of technology. He suggests that some urban people, through the use of modern technology might have experiences in the 'outdoors' with little connection to it. It is possible to draw links here between disconnection to place and anthropocentrism. If one views oneself as separate from or above nature it is difficult to reconcile a relationship with the environment which is intimately connected. However, it is highly problematic to generalise this idea to all "urban" people recreating or educating in outdoor environments as many of them have intimate relationships with places and great care and love for outdoor environments. What is interesting here is Bryn's inference that technology and urbanisation might somehow perpetuate a disconnected and therefore anthropocentric relationship with environments. This thought is an interesting one which will be explored along with consumerism in a subsequent section.

Throughout this section there have been links made between some teachers' perceptions of outdoor education and anthropocentrism. However, it is important to note that

the contested nature of outdoor education has considerable potential to challenge anthropocentric assumptions and provide counter-narratives to traditional ideas and practices. These possibilities, based in an eco-justice and sustainability framework, provide opportunities for outdoor educators to engage students with connecting to and caring for natural places and local communities. Reflections on these possibilities from teacher research-collaborators will be covered in the next chapter. Having considered how anthropocentric cultural assumptions might influence some outdoor learning experiences, it is now appropriate to examine how individualism underpins much of what occurs in outdoor education programmes and practices.

Individualism in Outdoor Education

If anthropocentrism is a cultural assumption which places humans above or separate from nature, then individualism is a cultural assumption which places individuals in the centre of that human construct. According to Bowers (2001d) individualism frames the individual as the basic social unit in modern over-consuming Western society, essentially freeing people from the constraints of community norms and responsibilities. He suggests this deep cultural assumption works to undermine morally coherent communities and leads to degrading environmental practices¹⁸. The issue here is how individualism interacts with conceptions of outdoor education and how it constrains the ability to educate within an eco-justice and sustainability framework. As discussed in Chapter 3, traditional outdoor education discourses have been rooted in a dominant logic underpinned by anthropocentric and individualistic foci (see: Brown & Fraser, 2009; Payne & Wattchow, 2008). This emphasis on individuals is often manifest in the concept of personal development, which holds a dominant place in the rationale for many outdoor education programmes and practices. This is highlighted by Hales (2006) who examined the rise of individualism in Australian outdoor education. He suggests that outdoor education programmes fascination with 'self' through individual or personal development has led to a loss of community values and a decreased emphasis on place. Hales (2006) argues that in order for outdoor programmes to be effective in helping people develop understandings of community and environmental relationships it is important that outdoor educators are cognisant of the social and political processes contributing to these individualised approaches.

It is important to note here that in educational terms individual or personal learning is a central concept. It is individuals who learn in a wide variety of ways and contexts and this

¹⁸ See chapter 2 for more in-depth explanation and theorisation of individualism.

learning is supported by vast amounts of learning theory and literature which are beyond the scope of this thesis. This section is not a critique of individual learning, rather it seeks to uncover and examine how individualism might impact on outdoor education learning experiences through a lens of eco-justice and sustainability. Furthermore, a focus on individuals within outdoor education can be seen in a multitude of ways. Teacher research-collaborators in this project highlight the complexity of this issue in revealing their thoughts and reflections in this section. Below Bryn, Mike, and Josh express concern with the way they see individualism operate in our society.

Yeah, I think personal development is dangerous (laughs). . . I don't think the world is a better place for personal development and individual development. I think there's a lot more focus today, well, it's all about me... So in some ways, I see our society, you know, that perhaps the focus on the individual isn't the best. (Bryn, Initial Interview, Nov 08)

It's like, what are we doing that is actually going to build societies? You know, we've become so focussed on the individual that we've lost the 'us' and it's all about me rather than us. (Mike, Initial Interview, Nov 08)

I see it in a disconnectedness with society and with our neighbours and with the people in our communities... I sense that I think a lot of things come from a lack of connectedness. (Josh, Initial Interview, Dec 08)

Here Bryn describes his perception of an increasing individualistic and self-interested focus in New Zealand society and makes a value judgement which suggests this focus has negative social effects. He sees little evidence in late/post modern New Zealand society to convince him that individual development contributes positively to communities. Mike reinforces Bryn's perspective, as he sees an increasing individual focus in society detract from coherent communities. In turn, Josh comments on the consequences of individualism for communities, suggesting there is a lack of connectedness between people within local communities which contributes to a number of 'things'. This lack of connectedness can be viewed in a similar way to anthropocentric disconnection from natural environments, as discussed in the previous section. I contend through theoretical (e.g. Bowers, 2001d), anecdotal, and teacher research-collaborators' perspectives, that individualism as a deep cultural assumptions strongly influences contemporary Aotearoa New Zealand society. Furthermore, what is of greater interest to this thesis is how individualism might wander unnoticed within outdoor education thinking and

practices in Aotearoa New Zealand. Also of interest is how outdoor education pedagogy might provide a counter-narrative which actually resists individualistic ways of thinking and acting. Some of this complex relationship is revealed below.

I think with outdoor ed, there's, there's sort of this focus on developing the individual. . . . You know, there is a focus there which I don't think is necessarily positive. . . . The focus on the individual and individual development and, you know, broadening your horizons and all of that sort of stuff whereas I think there's umm, there is equally, a large amount of value in social co-operation and working together, getting on. . . . And actually being prepared to give up something of yourself for others. (Bryn, Initial Interview, Nov 08)

I think outdoor ed actually resists it [individualism] and it gives the opportunity, it can, it can give the opportunity to show quite a different model and it depends how it's facilitated because if you take an outdoor recreation, an outdoor activity approach, then it does become really individualised but if you take an outdoor education approach and you take a, a personal and group approach to what you're doing, that in fact, the group being together and supporting each other is what's important, umm, you end up with a very different result. (Mike, Initial Interview, Nov 08)

So the students, at times, are very much in that survival of myself you know and what am I going to do to keep myself dry or warm etc and sometimes you have to teach them or encourage them to assist others you know. (Rachel, Initial Interview, Dec 08)

I think we can make more of, of collective responsibility within our programmes rather than focussing on, you know, an individual who leads a group, for example. (John, Initial Interview, Nov 08)

Yeah, but there is actually developing the individual socially as well and co-operatively with others and it's a natural extension to actually look beyond your own group and what effect you're having on people everywhere. (Bryn, Initial Interview, Nov 08)

Here there are several comments which reveal the way that individualism interacts with outdoor education pedagogy. Bryn describes a focus on individuals within traditional outdoor education

programmes which he sees as problematic because it can detract from social cooperation and working together. This is supported by Mike who suggests that outdoor pursuit activities often support a very individualised way of learning. These types of activities, such as: rock climbing, abseiling, white water kayaking, and even tramping, can place the emphasis firmly on individuals and the development of their skills to cope with the challenge of the activity. The central role of risk in these activities is not coincidental. In many cases these activities have been purposefully chosen to challenge students and promote personal growth which is underpinned by an individualistic assumption. Rachel reflects on the relationship between challenging activities and individualism by describing how an individual will often focus on their own needs when faced with difficulty in outdoor learning experiences, which can detract from their ability to encourage, assist or care for others. This links to the work of Brown (2008a) and Brown and Fraser (2009) who provide a fundamental critique of the centrality of risk-based outdoor education methods, suggesting they obscure other opportunities for learning such as the development of both individual and collective agency and responsibility. It must be noted here that skill development by individuals is an important part of learning in any context including the outdoors. The critique here is how an over emphasis on individualised skill learning can detract from outcomes associated with eco-justice and sustainability approaches.

Also revealed in the quotes above are ways that outdoor education can provide counter-narratives to individualism. This alternative is captured by Mike, who believes that when an approach is taken which facilitates group cohesiveness and support, the results or educational outcomes can be very different. Again Bryn supports this idea, suggesting an emphasis on social development and cooperation provides students with opportunities for better learning and a chance to “give something of yourself for others”. Here, Mike and Bryn are describing the place of social and group learning outcomes within outdoor education programmes and pedagogy. From conversations with teachers in this research group I would suggest that group focused outcomes are often prevalent with their current outdoor learning experiences, as expressed by Mike and Bryn. Examples of this include the many different types of adventure based learning (ABL¹⁹) activities which are used with their programmes. Furthermore, there is potential to develop group outcomes further as supported by John, who suggests that outdoor education learning experiences need to have a greater emphasis on the development of collective

¹⁹ Adventure based learning (ABL) is used by many outdoor programmes and comprises of a diverse range of team building and group initiatives and problem solving activities.

responsibility rather than a focus on individual outcomes such as leadership. This is a challenge. Woven into the very fabric of outdoor education in Aotearoa New Zealand is a belief that personal development occurs through participation in outdoor adventure pursuits. To re-envision this development as personal learning and empowerment, which leads students towards contributing to coherent communities and collective action, is a necessary but difficult process. This is highlighted by Sophie who reveals:

The challenge of encouraging a person to be an individual and accepting each other's differences but to also understand the need to work together and to support [one another] is crucial. (Sophie, workshop 1, April 09)

Here Sophie reminds us that there must remain space for the individual within education. There must be recognition of the diversity of personalities, attributes, knowledge, values, experiences, and differences which individuals bring to educational and life experiences. As Sophie points out, these differences need to be respected and accepted. Furthermore individuals need to be encouraged and empowered to develop. The key issue here is the purpose for which this development takes place. If individuals mature and progress only for their own benefit they can become entrenched within an individualistic world view whereby self-interest and often consumerism are the predominant drivers. If individual growth is framed by the need to work together towards what Bowers (2001a) refers to as morally coherent communities, then the seduction of individualism can be contested and challenged.

This section has discussed how individualism is both present within and resisted by the outdoor education pedagogy and programmes of teachers in this research group. Outdoor pursuit activities can lead to a problematic focus on individuals which detracts from social, group, or community learning. However, outdoor learning experiences which are facilitated in alternative ways can lead to learning which is beneficial to group and social learning which can work to resist the pervasive influence of individualism. One issue not revealed with this section is how group focused learning in outdoor education might actually move beyond the immediate group of students to consider their wider local, national, and global communities. This point is particularly related to how outdoor education pedagogy and programmes might consider and respond to social justice concerns. This apparent silence will be addressed in the concluding chapter. Having considered how anthropocentrism and individualism influence outdoor education, it is of interest to examine how technological progress, in particular the seemingly uncritical acceptance of technology, has influenced outdoor education.

Technological Progress in Outdoor Education

The links between anthropocentrism, individualism, technological progress, consumerism, and their relationship with outdoor education based on an eco-justice and sustainability framework, are further explored in the next two sections. When humans place themselves at the centre of their world-view and thus become the only reference point for subjective decision making, their reliance on technological progress and consumer products become primary considerations. It is important to acknowledge at this point that technology and consumer relationships are an integral part of life in Aotearoa New Zealand; in fact these very things enhance our lives and enable learning experiences in outdoor environments. The critique and challenge here is to find a balance of appropriate use. This position is summarised by Bowers (2001b) who states, “while the use of technology and other consumer items cannot be judged in dichotomous categories of good and bad, *unnecessary* dependence on meeting needs through products and services that can be purchased has disruptive consequences that weaken the viability of the family, community, and environment” (p. 9). It is from this position that analysis and interpretation in this section take place.

Outdoor education has a historical reliance on technology. High levels of technological innovation, clothing, and equipment are implicit in many of the pursuit activities employed by outdoor educators. Payne and Wattchow (2008) suggest “the interface of competence, equipment and technological demands exists across most of the outdoor activities commonly ‘programmed’ for in outdoor education” (p. 25). In many cases this equipment is perceived to provide levels of comfort and safety that can be seen as essential to the activity. The reality of this is revealed in the teacher research-collaborator comments below:

Allen: So you feel like technological progress has certainly influenced outdoor ed then?

John: Yeah, absolutely, and I think, for the most part, in a positive way. I mean I enjoy using a plastic fork, spoon, you know. I enjoy using cookers that are light and portable and reliable, I like being able to zip up a nylon tent and be away from the sand flies and somewhere that’s mostly weatherproof, and be in my down bag with a pretty high level of confidence that I’m going to be warm. . . [We can] just transplant a home into the bush. The kind of modern approach to the world in general, I guess, which is;

we've achieved progress, why go backwards. You know if you can take the newest things up there, why not. (John, Initial Interview, Nov 08)

I guess we have technology because it's making life easier and a bit safer. (Rachel, Initial Interview, Dec 08)

Better equipment allows activities in more remote areas and in more adverse conditions... The level of care required to satisfy parents, schools, etc, requires that modern equipment and communications are used. (Steve, Workshop 1, Apr 09)

Here John describes how technologies interact with the types of experiences that most students are exposed to in outdoor education. He relates his enjoyment of these activities to the convenience that technologically advanced equipment can bring. When you are in the back country in the pouring rain trying to cook an evening meal, it is quicker and easier to do this on a portable gas or liquid fuel cooker than to light a fire. John sees the adoption of this technology as a natural part of the progress that society makes; where ignoring the newest available technology is to be seen to go backwards. This is a strong narrative within education which drives schools and teachers to innovatively integrate technology into their teaching and learning practices and programmes. While this brings many positive benefits, in situations where bigger, better, faster, and more efficient technologies are available, the dominant position is to uncritically adopt these efficiencies rather than question their appropriateness. In outdoor education the links made between these efficiencies and safety is strong. As Steve and Rachel point out, there is a duty of care owed to students which requires the use of up-to-date technology to maintain safety. It is difficult to argue against this as certain levels of technology such as shelter, heat, personal clothing, communications, and first aid equipment are essential to safely enjoying outdoor experiences. A key consideration here, however, is the context and level of risk involved in the activity. As Steve reveals, technology makes more extreme and higher risk activities more accessible to outdoor education programmes. Here the issue of educational objectives of activities must be considered. For traditional outdoor education programmes based on risk-centred pursuit activities, the adoption of the best available technology (within financial constraints of course) is paramount. However, for re-envisioned or alternative approaches to outdoor education, based on eco-justice and sustainability perspectives which may focus less on risk and pursuit activities, the appropriate use of technology must be carefully and critically considered. The comment below reveals concerns with how technology is associated with outdoor activities.

Allen: So you're talking about critiquing technological progress in a sense?

John: Yeah, well I mean, yeah, absolutely. Critiquing the, the need for umm, gadgetry, you know, and, and the validity of it, you know. You've got these acres of plastic that we put into a modern tent and while, obviously, they're effective, you know, portable shelters, you know, there is a, there's a wider imprint in taking them. (John, Initial Interview, Nov 08)

Here John questions the use of excessive outdoor equipment (what he refers to as "gadgetry") from a perspective where he is concerned for the level of impact the manufacture of these products has on the environment and people. This is a well founded concern, with globalised labour markets, in particular cheap labour and relaxed environmental standards in some developing nations, having a significant role in the production of almost all outdoor clothing and equipment. It is rare for New Zealand companies to be still manufacturing to a high ethical standard in New Zealand, although enterprises such as Cactus, Earth Sea Sky, Wear on Earth, and Ground Effect demonstrate this is still realistic and achievable. A re-envisioned outdoor education, based on a sustainability framework, views ethical issues critically and takes action to promote social justice and environmental responsibility. This may mean engaging with local producers, who work to high ethical standards, rather than multi-national or other companies who vigorously pursue cheap labour markets. Whilst the merits of the global market place are open to considerable debate, Bowers (2001b) reminds us that a goal of eco-justice is the development of self-sustaining, cooperative local communities. It can be argued that purchasing locally manufactured outdoor recreation clothing and equipment, provided it is produced in an ethical and sustainable manner, is of benefit to sustainable communities. These issues are explored further in Chapter 11 which discusses Rachel's incorporation of an education for sustainability achievement standard into her year 12 outdoor education programme through a "buy New Zealand made" unit.

Of further interest is how technology influences the student's relationship with their environment through outdoor education experiences. Below Bryn reveals his thoughts on this.

I think technology actually separates us from a real adventure experience, frankly. (Bryn, Initial Interview, Nov 08)

I mean that struck a chord with me in that there is this, technology effectively separates us from the experience in the location. (Bryn, Initial Interview, Nov 08)

Bryn's critique here is significant. He describes his belief that technology in outdoor education and recreation has the potential to separate people from a 'real' adventure experience and more significantly to separate them from the environments where these adventures take place. This is a contestable point. It can be argued that using technology such as tents enable people to spend time in natural environments which in turn helps them to build healthy relationships and connection to those places. Conversely, as Bryn suggests, using some technology might separate us from a more authentic experience, for example, staying in a luxury lodge on the middle of a National Park. I think the issue here for outdoor education is what level of technology is appropriate for the learning outcomes of a particular experience. For educators seeking to help students to develop sustainable connections to their environment and alternative approaches to learning in the outdoors, there may be a need to critically evaluate levels of technology and equipment in their programme. This evaluation should seek to ascertain appropriate use of technology which enables rather than constrains connection to natural places and equitable access to outdoor learning experiences for all students, as highlighted below.

Um Yeah and I guess too this culture of having all the materialistic things in the world, you know the latest gadgets and technology and gear etc. I think well I believe that there's a pressure for students to have that taking this course. (Rachel, Initial Interview, Dec 08)

[I am] definitely aware that outdoor education tends to be gear and money intensive and that excludes people, unless of course we change what we do so that anyone can participate long term. (John, Initial Interview, Nov 08)

Observations here from both Rachel and John reveal the high financial costs to students for engaging in their outdoor education programmes, often through having to purchase expensive items of clothing and equipment. John has concerns about how this may exclude people from his programme or activities and how this can contribute to a level of social injustice through limiting equality of opportunity. Rachel makes this tension real when she highlights the pressure on students to have "the latest gadgets and technology and gear" which are often requirements for those traditional outdoor education activities. There are many ways to deal with possible exclusion through technology requirements, and many outdoor centres or programmes provide certain aspects of clothing and equipment to students to make some activities more accessible. Whilst this is a charitable initiative, it fails to address the root cause of the issue, namely the

reliance on high levels of technology because of the very activities that form the basis of many programmes. John offers an innovative solution to this issue in suggesting changes to actual programmes and activities which somehow minimise the need for expensive, highly technical clothing and equipment. This perspective is further enhanced by the following comments.

I see the next progression in outdoor education in some respects, is a backwards step. To go back to teaching a lot of the fundamentals which were taught back in Boy Scouts and things like that in the 40's where they go camping and they wouldn't necessarily do any outdoor activities. You know abseiling and things like that are a fairly recent thing. (Steve, Initial Interview, Nov 08)

You can use the modern materials but I think we need to, we do need to show kids that there are other ways of doing it, you know, and there are potentially, technological means that are far less impacting and, and maybe looking backwards is, is a way forward. (John, Initial Interview, Nov 08)

Here Steve and John issue a challenge and provide insight into possible future directions for outdoor education. The notion of looking backwards, or, articulated here by both John and Steve, requires some 'unpacking'. That is, how does getting back to basics fit with, and contribute to, a re-envisioned outdoor education based on eco-justice and sustainability. Steve provides a critique of the risk based pursuit activities, such as abseiling, suggesting the need for learning experiences which engage students more naturally with places in ways which rely less on high levels of technology. His comment about the "Boy Scouts" can be used as a metaphor to illustrate the types of 'low tech', humble, and resourceful activities that may contribute to sustainable outdoor education pedagogy. This is not an attempt to valorise the Scouting movement or to suggest they represent a re-envisioned outdoor education. Many of Scouting's philosophies and practices can be seen to be problematic in the critique of traditional outdoor education narratives (Payne & Wattchow, 2008). Here Steve's comments reflect an affinity with activities which are underpinned by simple ideas of living and being in the outdoors. John's comment supports this, by advocating for a use of technology which is both ethical and low-impact, while capturing a sense of simplicity within outdoor learning experiences which rely less on modern materials. These ideas are strongly supported by the work of Payne (2002), whose critical approach to outdoor education embraces critical thinking, ethics, sustainability, humble activities, resourcefulness and craft, and environmentally attuned travel and living. The concept of slow pedagogy (Payne & Wattchow, 2008) also calls into question the high reliance on

technology in traditional outdoor education narratives, suggesting the need to ‘pause’ or ‘dwell’ in places rather than ‘pass through’ or ‘over’.

This section has begun to critically examine the use of technology in outdoor education. This debate deserves far more attention and would be a useful topic for further research and discussion in outdoor education circles. Furthermore, it is impossible to examine the appropriateness of technology in outdoor education without considering the links between technology and consumerism. From a sustainability perspective it is perhaps consumerism and its Western derivatives such as over or hyper consumerism, that deserve critical attention.

Consumerism in Outdoor Education

Of particular interest in this section is how consumerism interacts with outdoor education programmes and pedagogy. Consumerism is a cultural assumption which normalises an individual’s right to consume commodified products as a natural part of life. The critical examination of consumerism is also concerned with the commodification and commercial processes which contribute to consumer culture. In outdoor education the influence of consumerism, as with technology, is inescapable within traditional programmes, centres, and learning experiences. Foley, Frew and McGillivray (2003) suggest, “adventure can now be served instantly in safe, sanitised and pleasant surroundings. It is a commodity to be consumed”. Although referring to recreational adventure the connections and influence of recreational trends on education cannot be dismissed. As with technology, it is unhelpful to view consumerism in a dichotomous ‘good versus bad’ way. The critical question to address here is the degree to which consumerism inhibits outdoor learning based on an eco-justice or sustainability paradigm. Comments from research collaborators below reveal aspects of discomfort with the strong hold of consumerism on students they are engaged with.

I think we’ve got a generation of kids who are growing up with a very casual view of their responsibilities in the world. In some ways, your responsibilities are a function of your consumerism. You know, if it doesn’t appeal to you, if it doesn’t do anything for you, you don’t do it. So you engage with your responsibilities to the extent that they give you come back. . . . That’s very much a materialistic, consumer driven sort of framework. (John, Nov 08)

I get concerned about social disintegration where people are more and more individually focussed. The push in society is asset acquisition. (Mike, Nov 08)

The comments above view consumerism in a critical light. John draws some insightful links between consumerism and his perception about peoples' responsibilities to society. He is suggesting that increasingly young people are defining their existence and responsibility through their consumption. Although it is problematic to draw conclusions and implicitly make comparisons about today's "generation of kids" while not considering socio-historical trends, John's comment reveals the pervasive connections between consumption and individualism. Mike too, makes connections between asset acquisition and individualism. He perceptively reveals a relationship between social disintegration, an increasing focus on individuals, and consumerism. This relationship is clearly concerning to Mike, and although he makes no direct links to his teaching here, the position he articulates is pedagogical. We live in a post-industrial, late capitalist society where the influence of commercialisation, corporatisation, and commodification are insidious and largely fuelled by self-interest. I believe consumerism has become a defining feature of the Western social world where most aspects of human existence are subject to commodified relationships. Giroux (2003) goes as far to suggest that consumerism is the only alternative presented to students by Western educational systems and institutions. When relating this to John's comments it is important to consider the role that education has in preparing students to function in our society. Is one of the roles of education, and more specifically outdoor education, to encourage consumption as a defining feature of one's existence, or is it to develop citizenship? That is, should we be encouraging and empowering students to make a positive contribution to their planet and their communities? I argue that the development of citizenship is one of the goals of a re-envisioned outdoor education where pedagogy is informed by an eco-justice and sustainability framework. This involves critically examining deep cultural assumptions such as consumerism as revealed below by Sophie.

Mass consumerism [bothers me]. It's not about recycling, which some people get a bit focussed on. It's just about needing to reduce. It's like, don't do it in the first place. Think, if you are going to do something, it's getting yourself to really say, do I need to do that? Do I need to buy that? Do I need to own that? Do I need to use that? Do I need to go there to do that? (Sophie, Nov 08)

Here Sophie is asking critical questions about a number of aspects of consumption. Although recycling may be more preferable to throwing everything in a landfill, Sophie points out that in fact the most important response we can have to consumer waste is to reduce consumption. She suggests the key to this process is for people to critically ask "do I need. . ." questions. It must be

acknowledged that need is a subjective and socially constructed concept. What one person may consider a need, may be an extravagant luxury for someone else. Complicating matters further are omnipresent socio-cultural, media, and marketing messages which work to influence and manipulate people's perception of need. In resource-rich over-consuming nations such as New Zealand, perceived levels of need far outweigh what is required to live either comfortably or sustainably. As discussed in the introductory chapter, extensive literature (for example, see Hamilton & Denniss, 2005; Monbiot, 2007; Orr, 2009) strongly argues that the social and environmental impacts on the planet, brought about partly through heightened levels of perceived need and consumption, are unsustainable. Despite the contested and constructed nature of need, it is imperative that citizens ask the types of critical questions highlighted by Sophie. This applies to outdoor education teachers and their teaching and learning programmes. As discussed in the previous section on technological progress, dominant conceptions of outdoor education can be very equipment intensive and this can put pressure on students and teachers to consume the "latest gadgets" (Rachel). Drawing from Sophie's critical questions, it is important for outdoor educators to examine what level of consumption is actually needed in outdoor learning experiences. This is, however, a difficult and complex task as highlighted by Bryn below.

Well we're all guilty. I mean as consumers, we're guilty. We're gullible.

We're convinced we need the latest thing. I mean, yeah, it's just the getting the critical, the critical thinking thing going. (Bryn, Nov 08)

Here Bryn reveals aspects of life in contemporary society where one cannot escape being a consumer. The highly commodified and specialised nature of this society sees us exchange our labour services for money which in turn we use to purchase consumer products. This process is largely inescapable and is strongly influenced by a bombardment of marketing messages which, as Bryn highlights, convince us we need the latest things. By suggesting a level of gullibility and guilt in this consumption, Bryn is presenting a position which is implicitly critical. He then makes the suggestion that through critical thinking we need to examine our levels of consumption. As we cannot escape consumerism this critical examination must rest on finding a balance of appropriate consumption and contribution. That is, determining what products we really do need and what we can do to mitigate the impacts of our consumption on other people and our environments. Although few of the teacher research-collaborators spoke directly of how consumerism influences and interacts with outdoor education pedagogy, there are important considerations to be made here. Inherent in the critique of the status quo and re-envisioning outdoor education through eco-justice and sustainability, is the critical examination of taken-for-

granted ways of thinking such as consumerism. As more advanced technology becomes available for outdoor recreation and education activities, it is easy to consume these products without critically examining their appropriateness or impact. If outdoor education pedagogy and programmes are to be more focused on educating for a sustainable future, then there must be ongoing critical examination of how cultural assumptions influence theory and practice.

Segue

Up to this point, this chapter has examined teacher research-collaborators' perceptions of outdoor education and more specifically how deep cultural assumptions influence and interact with dominant notions of outdoor education. These critical themes were specifically sought in research interviews through questions which were informed by an eco-justice and sustainability theoretical framework. Also of interest in those initial interviews were teacher research-collaborators' perceptions of opportunities for sustainability in outdoor education. This included insights into factors which constrained and enabled more sustainable outdoor education practices. Several key themes emerged from the analysis in this area, which are explored in the following chapter.

Chapter 6: Exploring the Status Quo Part Two – Opportunities for Sustainability in Outdoor Education

Introduction

The previous chapter explored how deep cultural assumptions influence and interact with notions of outdoor education in Aotearoa New Zealand. It constituted the first part of understanding the status quo through the thoughts and perceptions of teacher research-collaborators. That is, how did they perceive outdoor education theory and practice at the beginning of the research process. This chapter seeks to explore the status quo further through considering teacher research-collaborators' thoughts on opportunities and possibilities for incorporating sustainability into their outdoor education programmes and pedagogy. Data information for this chapter is drawn from initial interviews and workshop 1 responses gathered in late 2008 and early 2009. This chapter discusses several themes which emerged from this data. First, it considers the importance of connecting to and caring for place. Second, it discusses the importance of building community and interpersonal relationships. Third, it explores factors that could constrain and/or enable the incorporation of sustainability into outdoor education. These include: institutional (school) structures, assessment and qualifications, and cross-curricular thinking.

Connection to Place and Guardianship in Outdoor Education

Place-based pedagogies are an emerging theme within current outdoor education literature and debates which have been influenced by foundational North American writers such as Greenwood (nee Gruenewald) and Smith (Greenwood, 2008; Gruenewald, 2003a, 2003b; Gruenewald & Smith, 2008). This literature contributed to the theoretical framework presented in Chapter 2, which provides the backbone to this thesis. Moreover, as discussed in Chapter 3, place-based or place-responsive themes have been further developed in the Australia/Aotearoa New Zealand context by outdoor education academics such as Brown and Wattchow (Brown, 2008b; Payne & Wattchow, 2008; Wattchow, 2008; Wattchow & Brown, 2011). This section explores how some teachers in this research spoke of the importance of connection to, and guardianship of, natural environments and places. I have used some of this data to write elsewhere (Hill, 2010a) about how connection to place is a central theme in sustainable approaches to outdoor education.

Furthermore, this section highlights the potential for outdoor education to provide meaningful learning experiences which help students to develop appreciation for place. It is often through a sense of appreciation that students develop love for and connection to places. As Sobel (1996) reminds us, it is important for children to “have an opportunity to bond with the natural world, to learn to love it, before being asked to heal its wounds” (p. 9). The comment below from a teacher research-collaborator follows this theme.

I think one of the transforming aspects of outdoor ed is that you are taking people into a different world. You know, you’re taking them back in time in some senses. You’re putting them in a situation where man [sic] hasn’t had as big an impact as they have in the main street of Christchurch, where we haven’t completely modified the environment and it’s still in a state where it can impress you with its own self, if you like, its own identity. (John, Initial Interview, Nov 08)

John refers to the powerful experiences that can occur in the natural, and often pristine, environments where a lot of outdoor education takes place. He suggests that this power has the potential to transform or change people’s perceptions of and connection to places. When John speaks of the ability to “just be somewhere else”, and to be impressed by a place’s identity he is speaking of those times when humans often develop deep connections with places. The times when we stand in awe or humbly sit and breathe in the power of a beautiful natural landscape. Gruenewald and Smith (2008) support this, suggesting “education in connection to place must also inspire in learners an appreciation of beauty and wonder, for it is through the experience of beauty and wonder that we risk opening ourselves to others and the world” (p. xx)

As the teacher research-collaborators further discussed ideas around sustainable outdoor education in our first workshop, a conversation emerged which placed connection to and care for place and community as a key concept. A small part of this conversation is recounted below.

There are some really key themes ... call it guardianship or ownership. I think that’s a key part of this – you can’t think sustainably without owning the problem, and owning your part in and owning the place that you’re affecting. I think that’s a really key idea. (John, Workshop 1, April 09)

You can narrow it down further. I think it’s that connectedness, its connectedness with the environment, connectedness with others. I know

how I became connected to the environment but how do we actually set it up so that kids can become more connected with the environment and engage with each other and then have that understanding of how their actions impact on others. (Bryn, Workshop 1, April 09)

As this conversation continued, people shared a sense of agreement around how important this idea of connectedness was. John reveals the idea that in order for people to take action towards more sustainable ways of living they must have a sense of ownership of not only the issue they face but also the places they inhabit. Bryn expands on this suggesting that developing a deep connection to those same places and associated communities is central to engaging with and understanding impacts on others, both human and non-human. Both Bryn and John see outdoor education as ideally placed to work towards these outcomes for students. I believe they also consider connection to and care for place as crucial if outdoor education is to embrace concepts of sustainability. This relationship is further revealed in the comments below.

I feel like the land, that valuing and gratitude and gratefulness of a moment or of a place, I think connects us so strongly with the earth and the planet and helps me to care for those places on this earth and I think that's so crucial to our survival and more than survival. (Josh, Initial Interview, Dec 08)

If you have a, if you have some kind of connection with the land, I think you have more commitment to, to looking after it as well. (Sophie, Initial Interview, Nov 08)

Here both Josh and Sophie reveal their belief that being connected to a place facilitates a deeper level of care for that place. Josh describes some emotions such as gratitude that can be associated with developing those deep bonds with the earth and how these can potentially impact on our willingness and potential to care for it. The relationship between connection to and care for places is complex and not unproblematic, however, it is well supported by literature in the fields of deep ecology, eco-psychology, and place-based pedagogies (see Bowers, 2001a; Gruenewald, 2003; Nicol, 2003; Schultz, 2002). Some of the potential issues associated with notions of connection to and guardianship of natural environments, within the context of outdoor education in Aotearoa New Zealand, are explored further in this thesis (see Chapters 8-10 and the conclusion chapter). One of these issues is how place-based concepts can become an explicit part of outdoor education programmes and learning experiences. As has been identified in the previous chapter, many of the pursuit activities in traditional outdoor education

programmes can be subject to cultural assumptions which might hinder rather than foster connection to place. Notwithstanding this issue, teacher research-collaborators shared ideas about how alternative or re-envisioned outdoor experiences might contribute to learning in, about, and for, places.

I think in order to connect to land and place we need to have some history with that place, familiarity, prior experience, stories etc. (Tom, Workshop 1, April 09)

How to develop connectedness with an environment or place? We need to make a transformation from being a visitor in a foreign place to being comfortable, 'at home'. Spend time, simple journeys, becoming familiar with surroundings & nature, rather than an outdoor pursuits focus. (Bryn, Workshop 1, April 09)

I personally like to encourage a sense of ownership of a frequently visited area. With 'ownership' comes a responsibility to look after it – put something back into it – to maintain and improve it. (Bryn, Workshop 1, April 09)

Several key concepts that relate practically to developing connection with place can be garnered from these comments. First, the concept of spending time in a place on a frequent basis is suggested. Too often outdoor education programmes can move quickly from one activity to the next or from one destination to another without sufficient time given to becoming intimate with the place. The idea of returning to a place at different times also has the potential for people to develop a history with a place as Tom suggests. These ideas fit with the concept of 'slow pedagogy' which can be "characterised as a multi-layered experience of time(s) 'presenced' in a certain socio-environmental location or place" (Payne & Wattchow, 2008, p. 35). Another key concept revealed in the comments above is the idea of putting something back, or taking action to improve or sustain a place. This is more than just picking up litter, it is what Orr (2004) calls a "politics of place" which drives an ecological concept of citizenship where people take action through a belief that what they do matters deeply. In the Aotearoa New Zealand context the concept of *kaitiakitanga* also has relevance here. Commonly translated as guardianship or stewardship, Blundell (2006) describes *kaitiakitanga* as "the mantel of responsibility worn by

*tangata whenua*²⁰ to promote the care and protection of natural *taonga*²¹ – the waters, coast, oceans, flora, fauna, forest, mountain, the earth and the sky”. *Kaitiakitanga* is wrapped in *Māoritanga* (world view, spirituality, customs, and language). Consequently, as M. Roberts et. al. (1995) caution, care must be taken to not isolate or divorce Māori concepts and language from their traditional cultural setting. It is therefore contestable as to how *kaitiakitanga* might contribute to re-envisioned outdoor education pedagogy in Aotearoa New Zealand based on a largely Westernised eco-justice and sustainability theoretical framework. This discussion will be re-visited in the conclusion chapter.

As previously outlined in Chapter 3, outdoor and environmental education literature suggests there is significant opportunity and possibility for concepts of place, guardianship, and sustainability to be embedded within outdoor education pedagogy. One such example of this is the concept of ecological literacy. Martin (2008) believes “outdoor education has a long tradition which... makes it ideally situated to pursue and embrace ecological literacy as a disciplinary core” (p. 35). Two key concepts of ecological literacy are nourishing community and connections to place, and developing a deeply felt concern, even love for the well-being of the earth. As connection to place and community become more central themes of outdoor education programmes and experiences our ability to educate towards a sustainable future becomes more viable. This is supported by Lugg (2007) who argues that outdoor education has significant potential to foster connection to place and is ideally placed to educate students towards sustainable relationships. The reflections of teacher research-collaborators in this chapter appear to support these claims. This does not mean, however that outdoor education has all the answers or has made an overnight transition to place-based or sustainable pedagogies. There remains significant tension, and even contradiction, between traditional notions of pursuit-based outdoor education and principles of eco-justice and sustainability as highlighted by Irwin (2008). These tensions are heightened by the very real presence and influence of cultural assumptions such as anthropocentrism, individualism, technological progress, and consumerism discussed in Chapter 5. It is imperative that outdoor education in Aotearoa New Zealand seeks to address these tensions and move more effectively towards a pedagogy which embraces place, community and sustainable living.

²⁰ Tangata Whenua, literally translated as people of the land, refers to the indigenous Maori iwi (tribe), hapu (sub-tribe), or whanau (family) who previously or presently inhabit Aotearoa New Zealand.

²¹ Taonga can be translated as treasures.

A further challenge for outdoor educators seeking to embrace sustainability and place-based frameworks is to move beyond the pristine and distant, toward the local. The assumption that outdoor education takes place in beautiful, remote and unspoilt environments strongly influences the philosophies and practices of many programmes. To reclaim local places for outdoor education experiences and learn what it means to live sustainably in those places and communities may take considerable effort for educators, particularly in urban environments. It is, I believe, a critical step in positioning outdoor education to promote learning about and for a sustainable future. While students rightly learn to love and take care of the National and Forest Parks they camp, tramp, climb, and kayak in, the real challenge is to empower them to love and care for the urban, everyday places they reside in. Yet embracing eco-justice and sustainability principles means more than caring for the earth. It involves the development of appropriate relationships and community with all creatures, both human and non-human. Consequently if outdoor education is to move towards greater focus on eco-justice and sustainability, the building of community and relationships through outdoor learning experiences needs to be further explored.

Building Community and Relationships in Outdoor Education

This section explores the potential and opportunity for outdoor education pedagogies to build appropriate and positive social relationships which contribute to a sense of community. This exploration is bound by socio-historical constructions of outdoor education and their interactions with deep cultural assumptions such as individualism. Literature outlined in Chapter 3 suggests the development of interpersonal or social skills is a well entrenched aspect of dominant notions of outdoor education. This literature also revealed a penchant for personal development as a key outcome of outdoor education which is rooted in individualistic cultural assumptions. However as previously discussed in Chapter 5, outdoor education's relationship with individualism can be contradictory. That is, individualism influences and impacts on outdoor education thinking and practice while at the same time potentially being challenged by many of those same practices. As Mike suggested in Chapter 5, outdoor education has the potential to resist individualism through the building of interpersonal and social relationships. The importance of relationships with others in outdoor education learning experiences was articulated by most of the teacher research-collaborators in this project and is the focus of this section.

I think it [outdoor education] really does put people in a position to explore the way that they relate with other people, and force them to change certain aspects of their personality in regard to the way that they relate to others. (John, Initial Interview, Nov 08)

Here John is referring to the nature of many outdoor education activities in that they are mostly social experiences, that is, they involve interacting with, relating to, and often cooperating with others. Although many traditional outdoor education activities focus on individuals and their skill or personal development, those same experiences tend to occur within a wider social or group context. In this wider social context John realises a potential for learning about how people relate together and how their own personality might influence this process. It is perhaps the immediacy of living with others for extended periods (in the case of tramping or other multi-day journeys) or the necessity of cooperation and teamwork in particular activities that can facilitate some reflection on a person's role in those social relationships. Although the extent and nature of "change" that John suggests is contestable, the potential for outdoor learning experiences to provide avenues for developing social relationships is supported by the quotes below.

We set it up right before we start, that they can all support each other and encourage each other and that's actually really valuable (Mike, Initial Interview, Nov 08)

I don't push any sort of individual development to any great extent when I'm working with kids... Without overly pushing it, you know, without saying directly, it's all about the group – It's just working on kids to actually care for each other (Bryn, Initial Interview, Nov 08)

Mike talks about the deliberate focus of interpersonal relationships in his programme. He especially highlights the importance of setting up a teaching and learning environment or space where students are expected to support and encourage each other. Mike sees this as a valuable part of his pedagogy and his programmes. Bryn too, makes social relationships and care for one another a key part of his pedagogy although he does this in ways which are not overbearing. Bryn's reluctance to emphasise individual development seems to come from a strong belief in the benefits of group development. It is important here not to talk about individual and group learning in binary terms. In reality these learning outcomes occur in complex ways where it is impossible to separate the learner from the social contexts in which they learn. As Brown (2009)

has argued, it is crucial to recognise the situated nature of learning to avoid person/situation dichotomies which are evidenced in contemporary outdoor education. The comments below begin to reveal aspects of situated and holistic relationships in outdoor learning experiences.

I'm really mindful of . . . the value of the depth of relationship you can have with a student and therefore the emotional engagement they have with each other and with that environment and with the teacher and the staff that are on the programme. That is huge (Sophie, Initial Interview, Nov 08)

I think there is a lot to unpack in terms of the way we use the outdoors as a context for social learning. I think in the end it's an idea of engagement, of engaging with other people as well as with the environment. It's not just about social interaction between us and other people, there's a third party in that. There's me, you, and the environment. (John, Workshop 1, Apr 09)

Sophie would concur with Mike and Bryn above, in articulating a perceived value in the depth of relationships that outdoor learning experiences can engender. In casual conversations with Sophie, she has shared some stories of the comments students make during trip debriefs in her programme. Through these stories, I believe Sophie reaffirmed her view that the development of deep social relationships is a very important part of her pedagogy. Furthermore, in the comment above, she broadens the context of these relationships beyond those between students to include teachers, other staff, and the environment. This interesting perspective is enhanced by John and is worth further exploration. John insightfully expands notions of relationship beyond the social to include the ecological. In viewing this socio-ecological relationship as a tripartite or three-way process, John reveals a holistic view which has the potential to break down some of the anthropocentric and individualistic tendencies that permeate traditional conceptions of outdoor education. Thinking of relationships between “me, you, and the environment” does this in two ways. First, it places humans firmly in the social realm which forces one to consider the needs of others and therefore challenges the seduction of self-interest. Second, it places groups of people in a relationship with their environment which is reciprocal and mutual rather than domineering and exploitative. Martin (2007) captures this idea in suggesting relational conceptions of the environment are a worthy and achievable goal of environmental education. Viewing the development of social relationships in a contextual, situated, and holistic manner is an important part of re-envisioning outdoor education through an eco-justice and sustainability framework. Tom articulates this shift in thinking below.

I have thought for a long time that environmental ed was a totally different thread, but it has been very useful to realise that both environmental themes and socio-cultural themes can be included under a sustainability theme. (Tom, Initial Interview, Dec 08)

Here Tom makes some explicit links between socio-cultural and environmental aspects of education through drawing on the concept of sustainability. His perspective perhaps represents some of the learning that has taken place with teacher research-collaborators in this project as we have wrestled with concepts of sustainability and eco-justice in outdoor education. This process has been grounded in an eco-justice and sustainability theoretical framework which is inherently socio-ecological. That is, it includes social, cultural, ecological, and environmental aspects. The pedagogical implications of a socio-ecological position can lead teachers to the types of conclusions articulated here by Tom. This has been revealed through teacher research-collaborators' suggestions that outdoor education holds significant potential for connection to and care for place and relationship with people. As Tom articulates above, these concepts are inextricably linked although the extent to which wider social contexts and issues are addressed through outdoor education pedagogy and programmes is an apparent silence.

This section has not discussed how the development of holistic, caring social relationships through outdoor learning experiences might contribute to building communities. Bowers (2001b) in his conceptualisation of eco-justice pedagogy, advocates for the development of morally coherent, self-sustaining local communities. While teacher research-collaborators in this project talk about deep social relationships within their outdoor education classes/groups they seldom expand this to students' place in their local, national, or global communities. There is an apparent silence here from teachers in this research group which is of some concern. For outdoor education to embrace eco-justice and sustainability perspectives, educators must engage with wider social issues and contexts; for instance, how might social justice issues be explored and addressed within outdoor learning experiences. As the following chapters discuss, for some teachers in this research group there was some conceptual disparity between the social and environmental aspects of sustainability. There may well be other factors which contribute to this silence on wider social contexts and issues such as perceived disconnection between teachers and the communities they teach in, and crowded curriculum and assessment pressures. Some of these can be viewed as constraints to incorporating sustainability principles into teaching pedagogy and programme. Constraints and enablers to eco-justice and sustainability in outdoor education are explored in more detail in the following section.

Constraints and Enablers to Sustainability in Outdoor Education

In initial interviews in late 2008, teacher research-collaborators were asked about the things that they felt constrained or enabled their ability to incorporate concepts of sustainability into their teaching. This section explores some of their responses. It also adds some contextual depth to the following chapters which discuss the changes that teacher research-collaborators implemented through the action research process. Constraints and enablers have been grouped into themes after analysis of initial interview transcripts. The themes include: institutional constraints and enablers, the constraints of assessment and qualifications, and cross-curricular thinking as an enabler.

Institutional (School) Structures

School structures can act as both a constraint and enabler to sustainability and outdoor education programmes according to some teacher research-collaborators in this project. School structures in this case refer to many of the things that are outside the control of individual teachers such as: timetables, class sizes, workloads, budgets, and school leadership, philosophy, and strategic direction. Some of these issues are revealed in the comments below.

I mean outdoor ed runs very easily here because the philosophy of the school is that learning occurs outside the classroom and it's about the quality of the experience. (Mike, Initial Interview, Nov08)

The school is very supportive of outdoor ed. It's not like we're having to battle to run programmes or anything, so that's a bonus. (Rachel, Initial Interview, Dec 08)

Both Mike and Rachel reveal school structures which are generally supportive of their outdoor education programmes. This is an important point. Having senior leaders / managers on side and a school philosophy which supports and encourages outdoor learning experiences is important for a subject area which can be pushed to the margins by more dominant or traditional learning areas such as Maths or English. Enhancing or re-envisioning your pedagogy to better educate for a sustainable future becomes a more daunting proposition if your classes and programmes are not valued or even under attack, as revealed in the comments below.

So you're in a school, you've got to fit within their philosophy and values and goals and strategic plan and so if the school isn't behind that [sustainability], then it's really hard to do. (Sophie, Initial Interview, Nov 08)

So we're going backwards real fast and its gut wrenching... you'd think that with the alignment of the sort of worldview of people that it would be easier [sustainability] but it is actually proving to be even harder. (Tom, Initial Interview, Dec 08)

Here Sophie is referring to the larger ideological, philosophical, and strategic positions that schools hold. Schools tend to be strongly influenced by their educational leaders, histories, special or unique characteristics, maintaining public perceptions and reputations, and the complex interaction of these and other factors. Within this context certain pedagogies can be promoted or hindered either explicitly or through more subtle means. Sophie refers to the difficulty of promoting and enhancing education for sustainability in her school when it is not currently seen as a priority within wider school philosophy and direction. Tom reveals his disappointment not only in the lack of progress towards including sustainability as a key feature of his college but at a perceived retrenchment. In his context, Tom sees sustainability as being pushed to the margins by dominant discourses and practices at work within his institution despite a number of people maintaining worldviews that promote sustainability. This reveals the politics at play with educational institutions. A good example is described by Steve.

The problem comes from the science dept . . . that the instructors aren't qualified teachers and so they shouldn't be meddling in teachers' jobs. (Steve, Initial Interview, Nov 08)

Steve was referring to a situation in his context where he was specifically aiming to introduce more environmental understanding and study into their extensive outdoor education programmes. Unfortunately he encountered resistance from the science department who suggested his staff did not have the expertise to facilitate such learning activities. Here rather than encouraging cross-curricular experiential learning the science department appears to maintain a political position which excludes others from their field. Whilst it is counter-productive to guess at motivations for such a position, it is important to understand that such constraints exist in some educational institutions. The broader political constraints explored above are linked to more specific issues such as lack of time.

You don't get the freedom to engage with the environment because you are limited by time constraints. You're limited by costs. . . . You're limited by all the things that an institution sort of overlays on the experience. (John, Initial Interview, Nov 08)

Time and money. I guess in a school environment there's so many thing that you're having to deal with and try and keep everybody happy. Yeah definitely time is a 'biggy'. (Rachel, Initial Interview, Dec 08)

Here John considers both the wider institutional influences that impact on pedagogy and programmes as well as more immediate issues such as lack of time and money. In the complexity of educational institutions it must be recognised that these types of factors are often interlinked. What is interesting here from both John and Rachel's perspectives is that lack of time and financial resources act as constraints to engaging with sustainability or environmental issues in their outdoor education programmes. Perhaps a key part of this is explained by the issues associated with a crowded curriculum and increasing pressure from assessments and qualifications in schools.

Assessment and Qualifications

A dominant theme that emerged from teacher research-collaborators comments was the role of assessments and qualifications in constraining their attempts to include more environmental education in their courses. This occurred in two ways: first, a school wide focus on assessment which in some way detracted from learning possibilities; and second, a dominant skill focused assessment regime within outdoor education emerging mostly from the use of Skills Active²² unit standards. These two issues are highlighted in the comments below.

Schools, from my experience, are constrained by the expectations of, you know, the priority of assessment and the regimentation of activity and managing the mass rather than teaching the individual. (Mike, Initial Interview, Nov 08)

You know I think as a school you have to offer a course with X number of credits and you've got to devise your course pretty much to come up with those credits and a programme that's going to fit your term and diary and everything else that is going. (Rachel, Initial Interview, Dec 08)

²² Skills Active, formerly known as SFRITO, is the government mandated industry training organisation (ITO) to set standards and provide qualifications in the outdoor recreation sector. Their mandate is primarily for industry not schools, although many schools use Skills Active assessments in senior (Yr 12 and 13) outdoor education programmes.

You've kind of got a curriculum squeeze. If you teach 12 hours a week, this school expects there to be a certain number of credits offered. (Sophie, Initial Interview, Nov 08)

The observations of Mike, Rachel, and Sophie reveal relationships between assessment and school structure. They are suggesting that assessment is a fundamental or core part of secondary schooling and that under the National Certificate of Educational Achievement (NCEA) system, this translates into credits being associated and offered within subjects. Assessment is an important part of the learning process, and it is reasonable to expect summative measures of competence towards qualifications in the secondary system. What is apparent from the comments made by Mike, Rachel, and Sophie, and other conversations with teacher research-collaborators, is the dominance of assessment in secondary school life. It has been suggested that there is an expectation for assessment credits to be directly associated with every learning experience. Students have become savvy credit gatherers, expecting the opportunity to gain credits at every learning juncture, whilst exercising their discretion by picking and choosing those assessments and credits which most suit them. This becomes problematic in that it reduces the potential and possibility of learning experiences to an instrumental credit gathering process, as discussed here by John.

Yeah, absolutely, they're [assessments] a constraint because they focus the kids on an objective sort of model of the experience. Their experience in the outdoors isn't valid unless they pass, you know, unless they meet the standard. That's what the outdoors is. It's a context for assessment. It's not a context for other types of appreciation. They're not there to appreciate the bush for itself. They're there because it's a vehicle to get to NCEA level two or whatever it is. (John, Initial Interview, Nov 08)

When John refers to the outdoors existing as a context for assessment he is revealing an instrumentality of those outdoor experiences. That is, the aim of those learning experiences becomes a means for gathering assessment credits. This is problematic when seeking to re-envision outdoor education through eco-justice and sustainability. The very opportunities for connection to and care for place, and building constructive social relationships, as discussed earlier in the chapter, become compromised by a focus on assessment which diminishes those aspects of the learning experience. Those same experiences become further compromised when the assessment tools most commonly used in contemporary Aotearoa New Zealand outdoor education are focused on narrow practical skill objectives, as highlighted below.

I'm not happy with the direction of a lot of our assessment which is based on outdoor proficiency of some degree or other. There is very little of it that's about engaging with your environment. (John, Initial Interview, Nov 08)

I felt things had been very much hijacked by unit standards, sort of the SFRITO pursuits model, you know, and that's the way programmes operated and incredibly, to me there was no actual environmental ed involved. (Bryn, Initial Interview, Nov 08)

With some of the units [Skills Active], there's mention of environmental care codes and various requirements as part of what they do. But I just wonder how much of its lip service, you know, it's a tick box. . . . In terms of the SFRITO [Skills Active] units, I don't think that a lot of the units are very well designed. (Mike, Initial Interview, Nov 08)

A central issue is exposed in these comments. The focus of unit standards (particularly those offered by Skills Active) tends to be on outdoor pursuit skills. This has a propensity to marginalise other outcomes in outdoor learning experiences such as those related to sustainability, environmental, and social issues. Bryn draws attention to this in suggesting that the potential for outdoor education to include environmental education aims and outcomes has been hijacked by the pursuit activity focus of Skills Active standards. John reflects critically on this same issue, suggesting that these proficiency based standards offer little incentive for quality engagement with place or environmental issues. Whilst Mike does highlight some tick box requirements for following an environmental care code²³ within Skills Active standards, he is sceptical of the importance placed on such environmental measurements and in that they are peripheral to the main objective of the standard – measuring skill competence. There is a place for skill development and measurement of competence in these skills in school based outdoor education programmes. However, from an eco-justice and sustainability perspective it becomes problematic when programmes become solely focused on outdoor pursuits activities. If secondary school courses must have assessment standards attached to every learning experience, and the scope of these standards are limited to the same pursuit activities that constitute dominant conceptions of outdoor education, it is difficult for teachers to change their

²³ New Zealand has an Environmental Care Code which is published by the Department of Conservation (DOC) and is available through their publications and website, <http://www.doc.govt.nz/parks-and-recreation/plan-and-prepare/care-codes/nz-environmental-care-code/>.

programmes and learning objectives to reflect sustainability issues and outcomes. This issue is discussed in more detail in Chapter 11 which explores how Rachel broadened her assessments through incorporating an education for sustainability achievement standard into her Yr 12 outdoor education course. For Rachel this involved some elements of cross-curricular thinking. The comments made below offer some insight into how cross-curricular thinking might contribute to a re-envisioned outdoor education and help to address the assessment constraints discussed above.

Cross-Curricular Thinking

I think there's room for anything in outdoor ed. I think outdoor ed is what you make it, you know it's just a title; you can do whatever you like. (Steve, Nov 08)

As discussed earlier in Chapter 5, there are diverse views about what constitutes outdoor education. Furthermore, literature in Chapter 3 suggests that despite dominant conceptions emerging in Aotearoa New Zealand, outdoor education is a historically and socially constructed concept which is open to contestation and debate. This perspective is expressed by Steve above, who paints a broad picture of what outdoor education can be. Such eclectic understandings can promote diverse positions within a field which provide agency and opportunity for change. Within the aims of this thesis, therefore, the prospects afforded through taking a cross-curricular approach to outdoor education are significant. These are explored through the comments below.

I think outdoor ed doesn't fit easily into any category because it's very holistic, so broad. . . Outdoor education steps outside the boundary and has everything on the outside. (Mike, Initial Interview, Nov 08)

I think more and more people are thinking this way in terms of outdoor ed being a whole lot more than just outdoor pursuits. . . . I see that [outdoor sport] as over there and then in the middle there'd be the personal development and interpersonal stuff and then you've got the next stage for me is linking in with the earth and feeling belonging and all that sort of stuff. (Rachel, Initial Interview, Dec 08)

Here Mike and Rachel talk about their perspectives regarding the holistic and emerging nature of outdoor education. Rachel articulates a perceived shift within outdoor education thinking and

practice which is challenging taken-for-granted dominant conceptions. She is suggesting that outdoor educators are developing a greater awareness of place sensitive engagement with environment, which is emerging from the traditional domains of skill enhancement (outdoor sport) and personal and interpersonal development. For Mike, outdoor education is a broad construct and this means it is difficult to categorise. Instead of being defined by narrow boundaries, Mike is suggesting that outdoor education has the potential to draw on a diverse range of learning objectives across different curriculum areas to fulfil a number of roles and outcomes. In the secondary school context, this broad thinking can be translated into a cross-curricular approach. This has implications for both curriculum learning objectives and assessment standards that make up outdoor education courses.

Let's use some Geography and Biology units [standards] that talk about interactions in the environment and talk about ecosystems and talk about some of those values that don't creep into outdoor ed. (John, Initial Interview, Nov 08)

That's what I'd like to try and look at . . . in biology they do a lot of insect identification and they have got sheets there where you go through a process with plants or insects and put them into groups by following a fairly straight forward step and some of that stuff could easily be done [in outdoor education]. (Steve, Initial Interview, Nov 08)

I really want to look at the sustainability achievement standards a little bit closer to see if I can actually build something into my programme around those. There's a lot of flexibility in that they're quite multidisciplinary, so kids can come from the social or the science side and maybe come up with an action project. (Bryn, Initial Interview, Nov 08)

By suggesting the use of geography and biology unit or achievement standards, John is advocating a cross-curricular approach in terms of both objectives and assessment tools. Interestingly, he equates the type of learning outcomes associated with these units, such as interaction in the environment and ecosystems, as not part of typical outdoor education programmes. Steve's thoughts reinforce what John is suggesting. While not focused on assessment, Steve is articulating a desire to use a broader range of learning activities which provide experiences and opportunities not normally encountered in traditional or dominant conceptions of outdoor education. John and Steve's comments possibly provide insight into a

key part of re-envisioning outdoor education to embrace sustainability philosophies and principles. This direction is further supported by Bryn, who expresses interest in using education for sustainability achievement standards in his outdoor education programmes. He views these standards as multidisciplinary which suit the broader cross-curricular approach to outdoor education articulated by Mike and Rachel above. An issue which constrains the types of innovative development suggested above is the perceived place of outdoor education in the New Zealand Curriculum and silo effects with secondary schools. As discussed in Chapter 3, outdoor education currently sits within the Health and Physical Education curriculum area. This has resulted in a convenient relationship with physical skills and personal development which works to further reinforce dominant notions of outdoor pursuit based education. This issue is further compounded by silo effects caused by traditional subject-based departments in secondary schools. These silos often work to increase competition between departments and hinder cooperation, collaboration and cross-curricular innovation. Whilst the New Zealand Curriculum has significant potential for cross-curricular initiatives, and some schools in this project are attempting these types of programmes at the junior level (Year 9 and 10), there remains an entrenched disjuncture between subjects at senior NCEA levels. These issues compound the difficulties faced by outdoor education teachers who seek to challenge the status quo and move towards a vision of outdoor education where the key goal is educating for a sustainable future.

Conclusion

This chapter has identified connection to and care for place, alongside the building of quality social relationships as two key aspects that can contribute to re-envisioning outdoor education through eco-justice and sustainability. Additionally, it has discussed how institutional (school) structures and assessment can act as constraining factors, whilst cross-curricular thinking might enable sustainable approaches to outdoor education programmes and pedagogy. The potential and opportunities for eco-justice and sustainability in outdoor education is exciting; however, the possibilities discussed in this chapter also present some problems such as silences on care for urban environments and addressing wider social issues and contexts. There is also potential for well meant ideas to remain as rhetoric unless somehow enacted. Bringing about meaningful change, in the process of re-envisioning outdoor education, requires action. The following five chapters further discuss some of the issues raised here and attempt to capture the changes that teacher research-collaborators made as a result of their participation in this

research project. The segue which follows introduces those chapters and lays a foundation for further exploring sustainable approaches to a re-envisioned outdoor education pedagogy.

Segue

The purpose of this project has been to challenge the status quo and re-envision outdoor education through the principles of eco-justice and sustainability. As discussed in Chapter 4, this purpose attempts to capture the dual aims of critical research; critique and transformative change. The previous two chapters have started to address these aims in two ways; First, through examining how deep cultural assumptions might influence and interact with some aspects of outdoor education in Aotearoa New Zealand, and second, through exploring possibilities and opportunities for outdoor education pedagogy to be informed by eco-justice and sustainability. These chapters sought to capture teacher research-collaborators perceptions at the beginning of the research process which helps to set the scene for the forthcoming chapters. It is now appropriate to turn my attention to the change process afforded within this project.

The next five chapters explore the impacts of this research project on teacher research-collaborators and discusses the changes they attempted to bring about during phase two of the research approach 2009/2010. Each chapter focuses on a single teacher and explores how the research process influenced them and their conceptualisation of sustainability, particularly as it relates to outdoor education. These chapters also outline the action plans which teachers implemented, how these plans influenced their pedagogy and programmes, and consider difficulties in implementing more sustainable approaches. Finally, each chapter captures teacher research-collaborators reflections about the value of a collaborative, participatory, reciprocal, and professional development focused research project. These chapters are future focused; that is, they seek to engage with both critique and change simultaneously to provide insight into possibilities for a re-envisioned outdoor education theory and practice. They are also contextual. Rather than provide a one-size-fits-all recipe, these chapters share teachers' stories and experiences which are specific to their both their personal and professional contexts. There is one important note on language at this point. Throughout the next five chapters the word sustainability is used to refer to eco-justice and sustainability perspectives and theoretical frameworks. This is for reasons of simplicity, flow of language, and to recognise that in Aotearoa New Zealand educational contexts sustainability is a term in common use whereas eco-justice is not.

Chapter 7 considers how Sophie improved her own knowledge of sustainability and developed a philosophy statement, which included sustainability principles, for her outdoor education programmes. Chapter 8 explores Josh's personal interactions with sustainability concepts and reviews the incorporation of sustainability content and objectives into his outdoor and environmental education course. Chapter 9 considers the concept of connection to place as Bryn sought to further understand how he could facilitate connection to and care for place in his outdoor education courses. Chapter 10 follows Mike as he developed deeper understandings of sustainability and tried to incorporate sustainability more broadly into his outdoor education programmes. Chapter 11 explores how Rachel sought to overcome assessment constraints by adapting and utilising an education for sustainability achievement standard and associated learning outcomes into an outdoor education course.

The research information used in these chapters has been gathered throughout the research process from interviews, focus group workshops, casual conversations, and written texts. These chapters were sent to each of the teacher research-collaborators respectively for their consideration and input.

Chapter 7: Establishing a Philosophical Basis for an Outdoor Education Programme

Initially this chapter provides a contextual backdrop and describes Sophie's subjective positioning at the start of this project. This is followed by discussion of Sophie's key action changes, namely the development of a philosophy statement for her department and programme, which led to some changes in her resource use and pedagogy. The chapter then explores how this project impacted on Sophie and her students followed by consideration of difficulties or constraints in implementing sustainability principles further. Finally, Sophie's perspectives on the research process are discussed.

Context

Sophie is a teacher in a mid-sized, urban, co-educational, state secondary school. Her responsibilities include leading an Outdoor Education Academy, being the Dean²⁴ for Year 10, and teaching a mathematics class. The senior school (Year 12 and 13) Outdoor Education Academy is timetabled for 12 hours a week. This includes afternoon offsite practical activities for up to three and a half hours. There are also several multiday practical journeys or activities throughout the year. The Outdoor Education Academy is largely made up of international students from countries such as Germany, Italy, Switzerland, and Brazil, with a small number of New Zealand students. At the beginning of the research process Sophie described her basic year programme in the following way.

I break the year up in terms of, basically lots of soft skill, group forming type work in the first term [such as] adventure based learning and hiking. Rock climbing and mountain biking [in the] second term. Third term is orienteering and then either an alpine unit or a survival navigation type unit. Sometimes outdoor first aid fits then if we haven't done it in the first term and then the last term is kayaking. (Sophie, Initial Interview, Nov 08)

Here Sophie describes the activities that constitute her year-long senior (Yr12 & 13) outdoor education programme. In terms of both structure and language used, the programme described

²⁴ The term 'dean' commonly refers to a position within a secondary school which has pastoral care responsibilities for a specific group of students, often a year group.

by Sophie above reflects many of the dominant conceptions of many traditional outdoor education programmes as discussed in Chapter 3. The language used here focuses primarily on outdoor pursuit activities and tends to emphasise the activities themselves rather than the learning outcomes that may be embedded within or alongside such activities. As can be interpreted from Sophie's comments later in this chapter, and informal conversations I have had with Sophie, the statement above does not accurately reflect the philosophy or core aspects of her programme. As we progress through this chapter, Sophie's growing understanding of various influences on outdoor education and her own knowledge and values are reflected in her re-articulation of her programme goals through a department philosophy statement. This will be detailed at a later point. Of further interest at this point is Sophie's position within her school context and the subjectivities that she brings to her position which are revealed through the comments below.

A lot of us are working in schools with only one Outdoor Ed teacher or we're the HOD, so we are the drivers. We are steering our programmes. (Sophie, Initial Interview, Nov 08)

I'm the sole practitioner, it's my values and it's really hard to, you can't separate yourself from that and the subject. (Sophie, Final Interview, Dec 09)

Sophie's role as head of the Outdoor Education Academy involves her often working in isolation from other staff in the school. As she suggests, she is the sole practitioner who drives her programme. Sophie does not have other teachers in her learning area to share ideas with or discuss issues with. Furthermore, she does not have to incorporate or accommodate other peoples' views and as a result it is her values, in tandem with curriculum and assessment expectations, which shape the direction and objectives of her programme. As I have noted elsewhere (Hill, 2010b), teachers beliefs can have significant influence on their teaching practices and programmes. Consequently it is pertinent to explore Sophie's knowledge and values in relation to sustainability and outdoor education, as they were at the early stages of this research project.

At the moment, it's my knowledge. I know so little about it [sustainability]. You know, I said even this morning, the social justice side, I've never really thought about that. Maybe some of what I do does fit in that and I don't know because it hasn't been articulated to me or I don't understand it. . . . It's just like, I need to learn more to, to be effective and to make any

progress or change or whatever. I need to learn more and that's what I'm keen to do is share ideas, do some reading and have my thinking and practice challenged. (Sophie, Initial Interview, Nov 08)

I think heaps of us came to this project with a lot of ideas. (Sophie, Final Interview, Dec 09)

In the first quote, Sophie revealed gaps in her knowledge about sustainability theory and practice. Being mindful of her position at the start of the project is useful, in that it helps to ascertain how her involvement in this research might have impacted on her pedagogy and programmes. That Sophie was cognisant of her knowledge gaps and willing to learn is of significant importance. For her to embrace change she perceived a need to be challenged in her thinking and practice and gain a greater understanding of sustainability particularly with issues of socio-cultural sustainability which she articulated as social justice. This issue was raised in the previous chapter and other casual conversations with teachers in this project have often revealed a conceptualisation of sustainability cognisant of environmental concerns but largely silent on socio-cultural issues. For example, Tom made the following comment in an interview in December 2008, which was discussed in the previous chapter; "I have thought for a long time that environmental ed was a totally different thread, but it has been very useful to realise that both environmental themes and socio-cultural themes can be included under a sustainability theme" (Tom, Initial Interview, Dec 08). Possible responses to this conceptual disparity will be further explored in the conclusion chapter.

Sophie's comments above also reveal some of her expectations about the research process. She was keen to learn and viewed this learning in a shared or collaborative way. Another key point revealed above in the quote from December 2009, is the knowledge that Sophie and other teacher research-collaborators brought with them to the project. Sophie was not an empty vessel waiting to be filled with knowledge. Rather her existing understandings were integrated with new knowledge. Details of how Sophie's knowledge was enhanced and then enacted within her programme are discussed in the next section which explores the changes she made at the level of educational philosophy, values, and understandings.

Impacting Philosophy, Values, & Understanding

The action plan that Sophie implemented in the participatory action phase of the research process primarily involved the development of a departmental philosophy statement. Her rationale for such an approach is outlined below.

I think my understanding [about sustainability] was really narrow and quite practical, if you like. . . I was thinking it was so much more about, perhaps, the resource programming level or rather, I thought that I could affect the best, most positive change at that level because I was thinking about impact. I didn't really understand that perhaps, I knew it was part of it, but I didn't understand how much a part of it your beliefs, values and philosophy were until I stepped back. . . and then realising that I was a big picture person, I was like, ohh, of course that's where I have to start. I'm starting at the wrong point. I'm starting at the finish line, I need to back up the bus, and that's where I came to write that philosophy. (Sophie, Final Interview, Dec 09)

I'm a big picture person, so I can't start making changes to my pedagogical stuff, to my resources without having a tenet or a vision statement or a department philosophy. I had to start from that point before I made any other changes. (Sophie, Final Interview, Dec 09)

Like I said, part of it was just knowledge [about sustainability]. It's bringing it all together. It's making it kind of more cohesive and accessible. (Sophie, Final Interview, Dec 09)

Here Sophie further articulates her conceptualisation of sustainability in the early stages of the project. She suggested her understanding was narrowly focused on practical aspects of how sustainability could be applied to her programmes and resources use. She then expresses how her understanding shifted to a realisation that beliefs and values were an important part of sustainability and had a significant influence on teaching pedagogy. This provided Sophie with a rationale for her focus on the "big picture". For Sophie this meant the development of a department philosophy or vision statement before she could consider changes to other aspects of her teaching and learning practices. Sophie also describes how this process worked to "bring knowledge together" and make it more "cohesive and accessible". Given Sophie's reflections about her lack of knowledge, discussed earlier, it is possible that the process of developing a

department philosophy may have acted to enhance Sophie's understanding of sustainability, particularly as it related to her pedagogy. As a result of her focus on philosophy and understandings, Sophie wrote the following philosophy statement for her Outdoor Education Academy.

Come on your journey of discovering more about yourself. How you react in challenging situations and learn what it means to be part of and develop as a team. Learn to reflect, to be resourceful, to take responsibility for yourself and be involved in making decisions. Understand resilience in yourself and in the world around you as you explore natural environments local to our school, that reflect the uniqueness of Aotearoa, what it means to be a New Zealander and the responsibility that comes with that. Build your fitness skills and knowledge to increase your success. Be willing and able to learn alone and with others to add to our community. Nurture your hauora and be connected. Understand yourself, others and elements of the world we live in. Take action for a sustainable future. Explore values and use the strengths of the group to set and achieve goals across a range of fun, meaningful and transferable learning situations. You've made a great choice. Haere mai. Your personal passing lane is clear. (Sophie, Departmental Philosophy Statement - Dec 09)

The above philosophy statement reflects for Sophie what is most important about her pedagogy. Here Sophie articulates certain beliefs about the holistic learning potential and variety of learning outcomes that permeate her outdoor education programme. She blends traditional notions of personal development with a focus on connectedness to place and responsibility for natural environments. She expands social development to include connection to others and community. She advocates for increasing student understanding and resilience in a broad, holistic sense and adopts an action focus to work towards a sustainable future. Many of the concepts and learning outcomes revealed in this philosophy statement are commensurate with an eco-justice and sustainability theoretical framework. This statement provides one example of how aspects of such a framework can be applied to an overarching statement of intent in one particular context. At this point it does not offer definitive or tangible changes to practice, rather it provides important anchor points from which change can be weaved. Such changes to practice will be explored later in the chapter.

Of further interest at this point is the process that Sophie went through to arrive at the position of writing such a philosophy statement. Part of this process is captured in the comment below.

I had to think about beliefs, values and that's what Faye helped me with. She got me to story tell about some great classes and good learning. Then we broke that into beliefs, values and knowledge. So my understanding, like I didn't realise that connectedness, until she gave me an EFS type resource with the framework for quality action competence in education for sustainability. That has got that really good diagram, the action competence ring and the New Zealand curriculum outer ring and the sustainability stuff. Once I had that to scaffold my knowledge and my learning, that was a turning point for me because I think I was, I'm sure I've said it again and again, I was really scattered. (Sophie, Final Interview, Dec 09)

Here Sophie describes her interactions with Faye and how this helped in her thinking. Faye Wilson-Hill, an education for sustainability advisor at the University of Canterbury up until the end of 2009, was an invited speaker at Workshop 2 during the action research phase of the research process (see Chapter 4 and Appendix E for further information). As a result of Faye attending the workshop, Sophie arranged to meet with her on a number of occasions to further discuss how sustainability could be a more integral part of Sophie's departmental philosophy and practices. Sophie described above how her thinking was scattered and how her involvement with Faye and the resources that Faye provided helped to scaffold her knowledge and learning. What is significant here is the development of relationships through the action research process which worked to enable change. As the facilitator and leader of this research process I understood that I could not meet the needs of all teacher research-collaborators directly, nor was I the provider of a one-size-fits-all recipe for 'doing sustainability' in outdoor education. I was fully cognisant that change needed to be contextually relevant to each teacher research-collaborator. Through the research process facilitating her relationship with Faye, Sophie was able to implement changes to her departmental and programme philosophy which reflected the unique contexts of her school, her own conceptualisation of sustainability, and her personal beliefs, values and understandings. In many ways the development of her departmental philosophy statement revealed shifts in Sophie's thinking as a result of her involvement in the research project. Some of these shifts are described below.

I think realigning that philosophy made a more definitive shift from, like I was never particularly pursuits' based and you can see it in my studies and qualifications, that I don't hold a string of NZOIA's²⁵, and I tend to use the pursuits as a learning tool. (Sophie, Final Interview, Dec 09)

I have re, re-envisioned my programme, umm, because umm, yeah, and it hasn't just been a housekeeping exercise. I think I've actually stopped and looked on my practice and what I've done and looked about where I've wanted to go umm, and, and where, you know, the youth, what is appropriate for the youth that I teach and perhaps, where we're at and where we're living. (Sophie, Final Interview, Dec 09)

Here Sophie describes her philosophy statement, which focused on place sensitive, personal, social, and environmental learning, as a realignment and definitive shift away from a focus on outdoor pursuit activities. It is interesting that Sophie states she was "never particularly pursuits based" yet her description of her programme in November 2008, outlined earlier in the chapter, used language that was very pursuit activity oriented. Perhaps what has occurred in the "realignment" of philosophy for Sophie was the clearer articulation of the learning outcomes that she considered most important in her outdoor education programme. The shift and realignment described above do not suggest that Sophie has abandoned the use of outdoor pursuit activities on mass. Rather she has re-defined the learning outcomes that are possible through some of those outdoor activities.

In the second comment above, Sophie reveals how the changes she made to her departmental philosophy have impacted more widely on her programme. In describing the "re-envisioning" of her programme as more than a "housekeeping exercise" she implies that change has taken place at a deeper level. This is further revealed by the critical questions that she asked and the close focus on her practices. This is an important point. If change takes place only at the level of a philosophy statement it can perpetuate what Payne (2002) refers to as a rhetoric-reality gap. That is, it contributes to a position where it is easy to talk about sustainability but where there is little meaningful action. As Sophie suggested above, it was important for her to "stop and look on my practice" to examine how sustainability might be implemented in more

²⁵ In referring to "NZOIA's" Sophie is talking about the dominant form of outdoor instructor qualifications in Aotearoa New Zealand which are owned and assessed by the New Zealand Outdoor Instructors Association (NZOIA).

practical ways in her programme. This illustrates Sophie's attempts to avoid the type of rhetoric-reality gap Payne identifies. The next section explores some of the ways that Sophie did this.

Implementing Change to Resource Use, Infrastructure, & Programming

One of the aspects of her programme that Sophie examined as a result of her "re-envisioning" was the location of her learning activities and how this impacted on the use of resources.

With programming change, [we] had a really good look at, why are we doing this activity? . . . We've changed where we've gone as well as part of that. We don't, we used to use Arthur's Pass a lot and the reasons were kind of the beauty and the fact that it was only two hours' drive away and that it was in the mountains and all of that sort of stuff. Well, guys, like actually we could go to Mount Oxford which is 89 kilometres away and have the same kind of experience there and we're not driving. We haven't got [so much] van use. We haven't got time, you know, we haven't got that kind of pollution, that kind of resource use. (Sophie, Final Interview, Dec 09)

Whilst the example of change described above by Sophie could be considered as small it reflects a willingness to consider ways of minimising resource use in her programme. Through reducing the distance travelled for a particular activity Sophie sees a number of benefits. Less travel time means more time on the learning activity, less fuel use, less carbon emissions and less financial costs. This type of change becomes possible when educators ask critical questions about their programmes and then seek alternatives to try to reduce resource use and therefore impact on the planet. This is certainly an issue that is highly pertinent to resource rich, over-consuming, Western nations and educators. The need to reduce levels of consumption is a key part of working towards a more sustainable future. Other considerations such as where goods come from are also important. The vignette below about one of Sophie's outdoor journeys describes how food production and consumption was a focusing issue.

In September, we did the Cass Lagoon [multi-day tramp] and the students had to, their brief was to commit to three changes that were sustainable and support that kind of philosophy. We were really focusing particularly around food. We thought that that was a really key environmental impact and something that was accessible to the students that would have good transference, that they would then go on and use in their life and be able to

relate to. Now, the reality is, a lot of my students are Europeans and so they, that's so much more a part of who they are. In fact, I think they do it better than some of the Kiwis, the students that I teach. So we looked at community gardens. We looked at buying local, you know, local stuff. One student said he wasn't going to eat meat once he'd done a lot more reading around, you know, environmental impact . . . then we looked at packaging and we tried, we always take compost pots away with us. . . We've been off making our own muesli bars before we left and umm, looked at fuel usage and what we were going, we decided on cooking couscous rather than rice because it was going to use less fuel . . . we kind of went through it but it was, yeah, it was pretty, it generated some amazing discussion. It was really, really, really valuable. They're still talking about it. You know, that's not sustainable, bro (laughs) and that was kind of the, the joke phrase the whole time. (Sophie, Final Interview, Dec 09)

The above vignette reveals a number of interesting points. First, there was a deliberate attempt by Sophie to get students to consider sustainability issues through the food they were to take on the tramp. Sophie thought that food production and consumption was a “really key environmental impact” and that it was relevant to the students’ everyday lives. This is an important consideration. If educators are to engage students in sustainability issues perhaps there is a need to ensure these connect with students’ lived realities. Second, the use of non-renewable resources in the food production and consumption process was considered. For example, Sophie’s students looked at buying local which reduces food transport fuel, and trying to purchase food options which used less fuel to cook. Third, packaging and waste were considered. This occurred at a level beyond recycling to include initiatives to reduce packaging through things such as making their own muesli bars. Fourth, students were encouraged to read, research, and make decisions for themselves regarding their food choices. This reflects a powerful pedagogy which can empower students to take action, as in the case of the students who “said he wasn’t going to eat meat”. Fifth, the whole approach to food on this trip became a pedagogical space which “generated some amazing discussion” around sustainability issues which Sophie considered to be of high value. These five points illustrate practical ways that an eco-justice and sustainability theoretical framework can be woven into existing outdoor activities through shifting or adding to the pedagogical focus of those activities. For Sophie and her students, the Cass Lagoon trip became more than a tramping expedition; it was transformed

into learning experience which critically examined relationships between sustainability, food production and consumption.

The pedagogical potential of the above vignette has been positioned in its relationship to sustainability resource use. Sophie engaged in other pedagogical changes in her programme, as a result of involvement in this research, which are further explored in the following section.

Implementing Change to Pedagogy and Teaching & Learning Strategies

With a clearer direction set by her philosophy statement, and a greater focus on sustainability, Sophie embarked on making changes to her teaching and learning strategies. An example of this is provided in the narratives below about learning experiences which take place on the Port Hills above Christchurch. The first of these relates to orienteering and the second to rock climbing.

I was trying to think, ohh, how am I going to bring in sustainability to what I'm doing here, you know. Like I was really struggling with that. Then we kind of talked around the, well, the Port Hills were totally covered in bush and now that it's not, we are able to use it for orienteering and so we, we had a kind of discussion around that, that was fairly interesting. Look at what we've done to the land but now that we've done that, this is how we can use it. (Sophie, Final Interview, Dec 09)

I'm still learning lots about the legends of the area and so we've been climbing up Rapaki and we've talked about umm, all the names. Like, I've learnt a lot more about the Maori names around the harbour and stuff like that. Whakaropu is the name of the harbour and what that meant and how that came to be in the legends and, you know, the names of Cass Bay and Rapaki and Corsair Bay and stuff. Little firelight tree growing, well, that's what it meant to them. You know, why, you know, those trees aren't there anymore. Why is that? And you know, keep that kind of conversation going. So they [students] really get to know, they have a real sense of the geography and the history of the area, I think. That's what I've tried to, to learn more about for myself, as a teacher but for the programme, for the students to have that understanding. (Sophie, Final Interview, Dec 09)

In the first quote above Sophie reveals that she had difficulty integrating sustainability into her existing learning activities and programme. This may come about for two reasons: First, many of the activities that make up traditional outdoor education have been constructed in socio-historical contexts which did not recognise sustainability or place-based issues as relevant learning outcomes (see Payne & Wattchow, 2008). Instead the focus was on traditional outdoor education outcomes such as personal, social, and ‘hard skill’ development. Furthermore, some of these same activities, e.g. rock climbing, may have harboured conquering undertones which engendered a relationship with the natural world which is counter to the connection themes which permeate eco-justice and sustainability perspectives (see Martin, 1999). Given these dominant historical constructions it can be difficult to “bring in sustainability” to existing pursuits type activities. Second, as Chapter 2 suggests, there is no universal, essentialised recipe for ‘doing sustainability’ in outdoor education. Rather with a postmodern turn, an eco-justice and sustainability theoretical framework recognises that change towards sustainability will need to be contextually relevant – it will look different in different places.

Given the challenges discussed above, Sophie makes subtle changes to her pedagogy which invokes a greater understanding of, and appreciation for the places where these activities take place. For Sophie this involved personal learning of the cultural, geographical, environmental, and social histories of the Port Hills, which she then included in her teaching and learning objectives. Thus Sophie developed explicit articulations of place which link to her conceptualisation of sustainability and her departmental philosophy statement. As I have discussed in Chapter 6, connection to place is emerging in this research as an important theme which is central to sustainable approaches to outdoor education. Sophie also reveals how an increased focus on place impacted on her students. She suggests that her students developed an increased understanding of the Port Hills and have “really got to know” that place through intentional and experiential learning activities. Sophie comments further on her perceptions of how these and other learning experiences may have impacted on her students.

So they understand a lot more, I guess, about, perhaps what it is to be a New Zealander here but, and because they have this, they love the beauty of nature, they, they come to have a more healthy respect for it. . . . It’s about the connection with place and they very much carry a part of New Zealand with them in their hearts. (Sophie, Final Interview, Dec 09)

I’m wanting some transference. I don’t want what they just learn or do here as being kind of that endpoint. You know . . . like, there’s opportunities

there and they take them and they go on . . . The key for me is, what have you learned about sustainability? What have you learned about connectiveness [sic] and your knowledge and stuff like that and how are you going to change life as it is now? . . . What are you going to do differently?
(Sophie, Final Interview, Dec 09)

Here Sophie articulates her perspective of how learning experiences in her course, which focused on place and sustainability, may have impacted on her students. She suggests students might understand “what it is to be a New Zealander”. Furthermore, Sophie’s comments seem to hinge on an idealised view of ‘New Zealandness’ being meshed with a connection with and love for nature. These notions can be problematised in the sense that it assumes an essentialised ‘New Zealandness’ which infers that there is a certain way to be a New Zealander. If national identities are culturally constructed and contested concepts then ‘being a New Zealander’ is not a fixed or static identity; rather ‘New Zealandness’ is a site where socio-cultural histories, diversity, and power intersect in ways which can lead to multiple interpretations. Notwithstanding these issues with nationalistic notions, Sophie’s thoughts about how her students have developed a love for and connection with New Zealand is still significant. This connection is framed in terms of both a love and respect for nature which may be an important contribution to sustainable approaches to outdoor education pedagogy. This theme was initially explored in Chapter 6 and will be revisited in subsequent chapters and the conclusion.

Also of interest is the way that Sophie describes her desire for the students learning in her course to move beyond the school based activities to their everyday lives. Whilst the use of the term transference can be problematic, and has been critiqued in recent outdoor education literature (see Brown, 2009), the intent of Sophie here is important. She is suggesting that a key for her is that students learn about sustainability issues in ways which impact their lives and bring about change. One of the key challenges of education for sustainability is to develop a critical consciousness or ‘conscientization’ (Freire, 1972) with students and then encourage and equip them to take action. Jensen and Schnack (1997) refer to this as action competence, a concept that has been further embellished, conceptualised and articulated in an Aotearoa New Zealand context through the work of Eames et.al (2010). What Sophie reveals above is an aspiration for her students to be competent to take action towards a sustainable future. She does not provide evidence that this has actually occurred and there may be many reasons for this, not the least of which is the difficulty in measuring such outcomes.

It is a challenge for educators in this field to know what long term impacts sustainable pedagogical approaches have on students. Whilst it was beyond the scope of this project to capture detailed student perceptions of their learning, this is a future research opportunity which might shed light on this issue. Sophie encountered several other challenges during her involvement in the research project which are explored in the below.

Challenges to Developing Sustainable Approaches to Outdoor Education

The previous sections have explored the changes Sophie made to her philosophy, resource use, programme, and pedagogy. During this process Sophie also encountered several issues which she perceived were barriers or constraints to greater levels of education for sustainability in her school. The first of these which relates to the isolated and divided nature of secondary school learning areas is captured in the dialogue below.

Sophie: My concern is, and this is, sorry, going off on another tangent, is I feel sometimes, like I'm one of a very small community in my school that's doing that and, and so my worry is . . . you know, even the Maths Department, only, I need to be careful to speak for them because I'm part of that, but umm, they don't know how to implement the new curriculum, and how do you put values into Maths? That's their thinking. And I was like, oh my gosh, choose your context. We've got a worm farm we're wanting to build and in my Maths unit, it will be around the waste generated at our school. We could do a waste audit. We'll graph that and measure that and building a worm farm, how much soil's going into that? How much is that going to cost? Like, to me, it's simple but I feel like, yeah,

Allen: So for you, does sustainability in education need to be, do you see it as a cross-curricular?

Sophie: Yeah, yeah, it needs to be but I think we're working in silos. I mean we've had this discussion before. People are working in silos and, and I think that's a massive shift for teachers to do anything but that's because they're pressured around NCEA and the work that needs to be covered for that and there's still a fair amount of resistance for students being out, learning outside the classroom or even in sports' teams that are going away because it's taking them away from getting through the subject material that they need to and my concern is, as far as sustainability, that we are, we're not

teaching them to learn how to learn and we're not affecting them or encouraging them to think about philosophical level for sustainability. I don't think there's a good enough understanding of it in the teaching community as a whole and umm, yeah, I think unless your school is particularly supportive of it, it has to come from, from the staff.

(Final interview, Dec 09)

The above dialogue reveals the disparate or "silo" nature of learning areas (subject departments) as a key issue in secondary schools. Sophie is suggesting that whole school, cross-curricular approaches to education for sustainability are key if students are going to be encouraged to think and act sustainably. However, she articulates a frustration that departments aren't working together and being creative about incorporating sustainability into their teaching and learning programmes. In the case of the Mathematics department, in which Sophie also teaches, she suggests they are struggling to implement the values of the New Zealand curriculum (NZC) (Ministry of Education, 2007a). As discussed in Chapter 3 the NZC provides many opportunities for sustainable approaches across all subject areas. Specifically, Sophie gives the example of a worm farm which would provide a multitude of learning outcomes across both Mathematics and Education for Sustainability (There are other learning areas such as Science, Art, Social studies, and English which could also have learning outcomes and activities associated with a worm farm). Sophie also suggests that the silo nature of her secondary school results in resistance to experiential learning activities that take place outside the classroom. This can have direct consequences for outdoor education where outdoor experiential learning experiences are of central importance. Chapter 6 presented the idea of cross-curricular thinking as an enabler for sustainability perspectives in outdoor education. Here Sophie is not only referring to this approach in outdoor education but in teaching and learning across the whole school. This theme will be unpacked further in subsequent chapters and the conclusion.

Sophie also reveals two further issues above, which are worth exploring further. The first is the lack of understanding and leadership in regard to sustainability within her school. Second, is the pressure of NCEA assessment which puts a focus on examinable subject material rather than encouraging a philosophical engagement with sustainability issues. The quotes below provide further insight into the school leadership issue.

I worry that on a political level, on a school level and I think it needs that support of structure and investment, I guess, of resources and energy. It

needs a commitment from the school to say, to look more future focused. I don't think we're very future focused at the moment. (Sophie, Dec 09)

I think it has to come, if you've got someone, I say, at the top, in inverted commas, if you've got someone at the top or at that kind of level, driving it, then you'll have a much greater support for it. It's not to say that you don't have to have a leader driving it if you've got enough people on the ground but I don't know if we have got enough people on the ground or we have but it's in pockets of our school. It's not as a collective and I think we need that collective as, as a group of teachers, to change what we're educating for and how and I think that's when we're going to get our social change. I think we need to conscience raise. (Sophie, Dec 09)

Here Sophie reveals several important points. First, she suggests that effective education for sustainability requires support and investment of resources and energy and a commitment from her school to be future focused. She also identifies this as a political struggle. This perspective acknowledges the role that power relations and influence plays in the distribution of resources and support within a school environment. The promotion of education for sustainability outcomes becomes a political struggle because more powerful interests such as assessment standards, numeracy, and language literacy often push sustainability outcomes to the margins. Furthermore, power relations are present in schools in a variety of ways particularly where there is competition for resources. In these cases it can be the dominant power positions which dictate resource allocations and investments. A further point raised here by Sophie is the lack of future focus in her school. Future focus thinking is a principle in the NZC and is a key element of a sustainability approach which aims to bring about transformative change in education.

The second key point revealed by Sophie is her belief that leadership is an important part of adopting more holistic or school wide approaches to sustainability. She suggests that whilst change can be brought about through "people on the ground", where these people are insufficient, marginalised, or scattered, leadership from "someone at the top" is important. Irwin (2010a), in his doctoral thesis on change towards sustainability at Christchurch Polytechnic Institute of Technology (CPIT), provides insight to this point in suggesting that leadership, policy and action are important parts of organisations adopting sustainable identities. Sophie goes on to suggest that teachers in her school need to question "what we're educating for?" in order to bring about social change which raises consciousness. Importantly Sophie recognises the power of a collective in this process. As was discussed in Chapter 4, Kemmis and McTaggart (2005)

recognise the important role that the collective plays in bringing about change through participatory action research. For Sophie then, a school-wide holistic approach to incorporating sustainability into all teaching and learning areas of her school requires both committed leadership and the collective energy and efforts of teachers.

Sophie also identified the focus on qualifications and assessment as a further constraint to adopting a more sustainable approach within her school. Whilst this has already been discussed at an introductory level in Chapter 6, it is worth exploring in some detail here.

We're quite qualifications' driven. There's a fair amount of pressure of "how many credits am I going to get" and the students can't take on board that what they learn will make them a better citizen, a better community member which is what I'm saying, you know, think about how we worked, you know, who are you? Where do you belong? What are you about? What do you stand for? Like I'm really trying to encourage them to think about that and explore that a bit more but umm, a person at 16 may not realise how important that is. They're about wanting NCEA credits to get a job because that's what their family is saying. (Sophie, Dec 09)

Here Sophie is revealing concerns regarding the pervasive influence of NCEA assessment in her school. She suggests this detracts from her ability to provide educational experiences which engage students with deeper questions that might influence the way they can be a "better citizen" or a "better community member". Although she suggests no specifics of what being a "better citizen" might entail, the context of this interview dialogue frames these concepts in terms of sustainability and eco-justice. Therefore, I believe Sophie's comment here about considering deeper philosophical questions is related to developing student citizenship which is concerned with a sustainable future. The educational aims of citizenship are supported by the vision, values, key competencies, and principles of the NZC. Citizenship can also be considered a key concept within a sustainability and eco-justice theoretical framework. Of particular interest here is the way that Sophie positions the drive for NCEA credits in opposition to developing citizenship. Furthermore she suggests that families of some of her students are more concerned with qualifications and subsequent employment opportunities than with concepts of citizenship. I believe this is a major challenge for our education system. It is difficult to measure and assess the contribution that a person may make to building stronger communities and more sustainable relationships with human and non-human nature. Even though these notions are

captured by the NZC, in Sophie's view they remain marginalised by a strong focus on qualifications in secondary schools.

Teacher Perceptions of the Research Process

The previous sections have explored the changes and challenges that Sophie encountered as she engaged in this research project. Of further interest in this thesis is the way the research process itself was perceived by the teacher research-collaborators and how it met, exceeded, or fell short of their professional development expectations. This section explores the research process from Sophie's perspective.

I think absolutely, without a doubt, in the, what have I been teaching, 10 years, this has been the most valuable thing I have ever done and, and I don't say that lightly . . . I think your process and planning has been really slick and like I said, it's been able to be quite supportive, we've kind of had a group thing and we've had pedagogical input from you. . We've had a kind of smorgasbord where we can take ideas from each other which has been really valuable and really energising and we've been really well supported and resourced in, and still doing our own thing. So we've been able to say, this is my programme. This is where I want to go with it. It's helped me clarify some stuff.

(Sophie, Dec 09)

Here Sophie is complimentary about the research process stating it has been the most valuable thing she has done in her teaching career. She suggests the pedagogical input was valuable and that the research process was supportive and energising. In particular Sophie reveals two things about the process that was valuable from her perspective; it was tailored individually and it involved a group collective which developed relationships. These two themes are explored in more detail through the quotes below.

We've chosen our little project or area that we wish to focus on and it's, it's been fantastic . . . Because it is really tailored, tailored to us and a good sharing of resources and stuff. (Sophie, Dec 09)

A key aspect of the research process, identified by Sophie, was the individually tailored nature of the action research. It was always a goal of the action research phase of the project to be meaningful to the specific contexts of each of the teacher research-collaborators. This idea was grounded in the sustainability and eco-justice theoretical framework, conceptualised in Chapter 2, which sought to avoid an essentialising one-size-fits-all recipe for doing sustainability in

outdoor education. Rather this framework adopted a moderate, oppositional, post-modern approach which accepted that sustainable approaches to outdoor education would look different in different contexts. This chapter has explored how this individually tailored process was useful for Sophie to bring about changes in her philosophy and practices that were specific to her context. This was an important foundation of the research process and one which is supported by Sophie's comments. Sophie also considered the group collective focus of the process to be important as captured below.

I think that that's been the greatest strength of it, is the bringing together of a whole bunch of ideas and perspectives and, and learning because we've all come from slightly different [perspectives]. . . . I think that that's been the greatest strength, is having, having that group, group energy and umm, sharing of like minds but also bringing in our own experiences and learning to the group and so I think that's what's been so, so valuable. (Sophie, Dec 09)

So I've found it hugely, ohh, it's been fantastic. Like you know, because you've, you've given us stuff, I've got so much out of it in terms of umm, thinking, in terms of reading resources and in terms of sharing experiences, umm, hearing what other people are doing, where they're going with it, umm, the connection you made for us umm, with Faye Wilson-Hill. Like I'd met with her, I think, three or four times and she came out with our crew one day. (Sophie, Dec 09)

Here Sophie refers to the group relationships and sharing as the greatest strength of the research process. As discussed in the previous section, Kemmis and McTaggart (2005) advocate for the important role that a collective group has in a participatory action research approach. It is therefore significant that Sophie highlights the collective group as a key part of this research project. Specifically she speaks positively about both the sharing of "like minds" and different ideas and perspectives. This speaks to the collective commitment of people in the research group to rethink outdoor education through a sustainability framework and how this generated a diversity of approaches and practical changes within the group. Sophie considered there was value in the sharing of experiences and "hearing what other people were doing". Sophie also reveals how the research process enabled her to develop relationships and connections which had a direct impact on her change actions.

Of further interest in the quotes above is how the research process provided Sophie with resources and affected her thinking. This development of Sophie's thinking has been evidenced

throughout this chapter particularly in the sections dealing with her departmental philosophy statement. It is pleasing from a researcher's perspective to have positive reflections made about the research process. A key guiding aim of this project, discussed in Chapter 4, was for the research process to be reciprocal and mutually beneficial. I believe the comments made by Sophie reveal that the process achieved these aims from her perspective. This does not provide a definitive endorsement of the research approach at this point. As the following chapters explore how the research process impacted on other teacher research-collaborators, further perspectives will illuminate the possible success of that process. This thesis now turns to Josh's narrative and perspectives of the research process and discusses how the process impacted on his pedagogy.

Chapter 8: Sustainability in Tertiary Teacher Outdoor Education

This chapter captures the experiences and perceptions of Josh as a result of his involvement in this research project. Of particular interest to this discussion was the impact on Josh's personal knowledge, values, and philosophy, and the tensions he encountered as he negotiated some areas of dissonance. Other key areas discussed in this chapter include changes made to Josh's teaching programmes, a pilot pedagogical initiative he instigated, and his thoughts on the role of outdoor education in educating for a sustainable future. At this point it is useful to contextualise Josh's professional and personal backgrounds.

Context

Josh teaches outdoor and environmental education in the tertiary education sector, working with students, many of whom may go on to teach in secondary schools. Josh was originally employed in a team of four people in a part-time position to teach EOTC (Education Outside the Classroom), risk management, and some other small practical outdoor education related courses. Since starting this position his roles have changed along with modification to the programmes and courses offered. He is now in charge of the outdoor and environmental education course which is offered to those students who have some prior skills and knowledge of the outdoors and a desire to teach in that learning area. The quote below provides insight into Josh's professional context.

The [outdoor and environmental education] major course is kind of an administrative course to help them, by the end of that course they actually, their assignment is a year plan for an outdoor education programme at a high school incorporating unit standards and their philosophy and their implementation of their philosophy as well as logistics and budget. It's a significant undertaking. Um and ah in addition to that there are a variety of modules, or papers, that people can take. We do run three relatively practical courses, one in kayaking, one in climbing, and one in bush craft. But those tend to be relatively short courses, four credits, a few day sessions or a few hour sessions and then a weekend course. (Josh, Initial Interview, Nov 08)

The statement above reveals some of the details of the course Josh teaches, alongside other practical learning opportunities available to students. It is interesting to note the course contains

foci on many of the pragmatic considerations which will be useful for beginning teachers such as course planning, budgets, logistics, and assessment. However, the course also contains a strong philosophical element which Josh talked about in the comment below.

The thing that makes me the most uncomfortable are students who come through with a very limited outdoor experience who are very much the adrenaline seeking, superficial engagement with an activity and an environment and then move on. We go out we did it, people buzzed, students were laughing and then we moved on. No processing you know, just the um yeah superficial experience, move on. . . I guess um, I struggle a bit with that and I've been trying to get people to think a little more about why they do it and really trying to underpin some kind of philosophies that are specific to outdoor ed. (Josh, Initial Interview, Nov 08)

Josh made these comments at the start of the research process. They reveal concerns with the way some students might interact with outdoor activities and environments and suggest a goal of engaging students with a deeper and more philosophical understanding of teaching and learning in outdoor education. Here Josh indicates how exploring the philosophical basis for possible approaches to outdoor education is an important consideration in the outdoor and environmental education course he coordinates and teaches. A further point of interest regarding this course is the place of education for sustainability in its make-up, as revealed below.

Education for sustainability was a module that students could opt into previously, it is now going to be integrated into the outdoor education curriculum if you like, which is a pity because students in other subject areas aren't going to be able to opt into it. (Josh, Workshop interview, Oct 09)

Here Josh makes reference to the changes to courses in his teaching institution and how this has affected the placement of education for sustainability content and methods. As he notes, education for sustainability has moved from a stand-alone module course to being incorporated into the outdoor and environmental education major course. While this has meant changes to his major course, which are further discussed later in the chapter, it has meant that education for sustainability is no longer accessible to all students training to be teachers across different learning areas (e.g. English, Mathematics, Sciences). The lack of a standalone education for sustainability paper further marginalise sustainability goals in formal teacher education and

inhibit cross-curricular approaches to addressing sustainability issues in Josh's context. Josh has indicated through casual conversation, however, that there are other courses in learning areas such as physical education and social science which focus on some aspects of sustainability, particularly social justice issues.

Much of the structural or institutional changes that occurred in Josh's professional context took place during his involvement with this research project. For confidentiality reasons it is not appropriate to discuss all of these changes fully. While this period of time has presented some difficulties for Josh, his involvement in this research process has acted positively as a catalyst and guide for changes to his programmes and courses. It has also challenged Josh to think more deeply and carefully about outdoor and environmental education and the role that education for sustainability and eco-justice might play in this. Some of these thoughts are discussed in the next section.

Impacting Philosophy, Values, & Understanding

This section explores how the research process impacted personally on Josh, particularly on his philosophy, values, knowledge, and understandings of outdoor education and education for sustainability. As a starting point for this discussion it is useful to consider some of Josh's thoughts regarding outdoor and environmental education made in an initial interview at the beginning of the research process.

I feel like it is about the outdoors to me, and it is about our relationship with those places that I think are special and I'd say that I see that as the most effective way in my experience of bringing about some of those insights that people have. I know that there are other ways of doing that and I fully acknowledge the validity of those but I think that for me the context of the outdoor environment brings out things more effectively than I've seen in other contexts. So I'm still about people um rock climbing and tramping and experiencing the outdoors. (Josh, Initial Interview, Nov 08)

For Josh, outdoor settings or environments are an important part of the pedagogical process. He does not just see those environments as a means to an end. He suggests that relationships with places are special and important and capable of bringing about certain insights in people. In further discussions Josh has indicated these insights might include learning about oneself, about others, and about the natural world and our interaction with it. Furthermore, Josh suggests that

in his experience, outdoor contexts are more effective in developing these insights than other contexts. For Josh a key component of outdoor contexts and the relationship with these places is the experiential nature of activities such as tramping and rock climbing that might take place in these environments.

These comments reveal some interesting points about Josh's starting position in this research process. It seems clear that while Josh considered traditional pursuit-based activities, such as climbing and tramping to be key parts of outdoor education he framed these within wider learning objectives or outcomes. Central to his position here was the idea of relationship to place. While this could be interpreted in a number of ways, Josh's position here appears to be commensurate with, positions informed by an eco-justice and sustainability framework. It is important to keep this in mind as this section continues to explore how the research process worked to further inform and influence Josh's philosophy, values, and knowledge. The quote below captures some important thoughts of Josh and is worth quoting at length.

Well, actually I think I have made significant progress this year in that area in terms of umm, when you first sent through some of those readings, my reaction was just very umm, I don't know if defensive is the right word but just like you know, was it the Jucker article? I can't remember, one of them, that was just like, change the world, you know. Envision the future. This is what it should be like. You know, and I was like, ohh, you know, that's, that's all very well that that kind of utopian kind of vision, but putting that into my head just felt like a, a worm that was eating away at my confidence in all sorts of different ways. I really went through a bit of a journey of a struggle and that kind of . . . you know, when you first get an idea that is quite challenging to you, it's kind of denial or resistance, that sort of process I went through to kind of like well, now I've kind of incorporated that. I can read that stuff without feeling like my core is rattled and that I need to shield myself from that kind of, and I don't know whether that's just, I've got my defensive shield up more effectively or whether I've processed it through and I've kind of come to some conclusions about what I can do and what I can't do. That kind of umm, St Francis of Assisi quote. You know, so I think I've probably got the courage to try and change the things I can and umm, I think I've gained some wisdom and, in knowing the difference. The grace to, to know the things I can't change and that's a flexible line that keeps moving

a bit. Umm, so yeah, I feel like my values and philosophy have been strengthened through this process and it was quite uncomfortable at the time. You know, I would go home and I'd talk to the family about it, my wife and say, this is outrageous (laughs). (Josh, Final interview, Dec 09)

There are several points to unpack from Josh's insight here. First, he felt the research process had helped him make significant progress whereby his values and philosophy in regard to sustainability and outdoor education were strengthened. He mentioned that the readings, complimented by group discussion in the research workshops, were a key part of challenging and stimulating his thinking. This process points to the potential impact that gaining knowledge through reading and discussion can have on values and philosophy. Second, Josh expressed a change process that for him was challenging and uncomfortable. He spoke of defensive reactions to reading some articles relating to sustainability issues and education and that his confidence was being "eaten away . . . in all sorts of different ways". He suggested at times there was a denial or resistance to challenging and new ideas and that at times his "core was rattled". These are significant statements that reveal the depth to which Josh critically examined his philosophies and values through engaging with new and difficult knowledge. For Josh it appears there were aspects of cognitive dissonance in this process. Furthermore, he notes that he was able to move to a position of acceptance where he was able to incorporate new ideas into his philosophical and values framework. In discussing key aspects of quality professional learning and development for teachers, Timperley et. al. (2007) point to the importance of providing opportunities for teachers to work through dissonance between new ideas and existing knowledge, and incorporating these new ideas into existing schema. This appears to have been the case for Josh. Third, Josh described gaining some wisdom about the things that he can and cannot change as a result of the critical reflection on his philosophy, values and knowledge. This is where he connects action to knowledge. Alluding to a St Francis of Assisi quote he feels he has the courage to change the things he can and the grace to know the things he can't. Whilst Josh suggests this distinction is flexible and moveable, it implies some form of action. The relationship between philosophy, values, knowledge, and action is further explored in the comment below.

In terms of beliefs, values, philosophy, knowledge, I also think that, I don't know where behaviour comes into this. Umm, I think my behaviour probably flows out of a combination. . . I feel like my behaviour has become more informed. I've now got the 'supermarket it's very difficult to make a decision disease', where I look at the products – I look at where they're

made – I try and make ethical decisions – I try not to visit the supermarket too much – I try and buy locally umm. I mean those are things that I was doing before but I think I'm probably more aware of it now. (Josh, Final interview, Dec 09)

Here Josh makes a direct connection between behaviours and the values and knowledge that might inform those behaviours. For him he sees behaviour in some ways flowing out of a combination of values, knowledge, and philosophy. He states that the research process has influenced him through making him more informed of the behavioural decisions he makes from a sustainability perspective. Josh provides the example of food purchasing and supermarkets to highlight this. He suggests many of the behaviours he was doing anyway, but that through a greater knowledge and understanding of sustainability issues he is now more aware and informed. However, this increased awareness brings with it certain challenges and tensions as revealed in the comments below.

I guess a challenge is definitely the way I live my life. You know, I've chosen to have children. I do ride my bike most places but, you know, to be honest, that's because I like bike riding as much as because I want to do it because it's better for the environment. I also fly places, you know. I went to Melbourne to visit relatives. You know, these are things that I struggle with because I don't think, you know. In a perfect world I wouldn't be flying to Melbourne. However, I would be connecting with my relatives and our kids would know their relatives in Switzerland and be able to go and live there. So what that means is very difficult and I think there's umm, the potential for a perception of hypocrisy and actual hypocrisy as well. (Josh, Final interview, Dec 09)

It's an uncomfortable position to be in. If you don't consider it, these, these kind of tensions, then it's much easier to live your life and, to be honest, I'm not sure that I'm living my life much more ethically now than I was a few years ago when I was much less aware of sustainability issues. Umm, but I'm living it with a lot more tensions (laughs). Thanks (laughs). (Josh, Final interview, Dec 09)

Here Josh reveals a number of tensions that have occurred for him as a result of the deep reflection he has engaged in throughout the research process. This impacts Josh at a personal

level as he describes a number of very personal decisions which lead to tension for him; for example, having children on a planet which is under pressure from population growth and using air travel²⁶ to visit international family. Josh suggests in a perfect world, perhaps one where sustainability was the absolute priority, he wouldn't be flying internationally but would still be able to connect with his global relatives. What Josh highlights here is the tension that is created when he examines his lifestyle and decisions through a sustainability lens. This tension can be further amplified when, as an educator, you advocate for and educate towards a sustainable future. As Josh describes above, this creates the potential for actual and/or perceived hypocrisy. Consequently there becomes a greater responsibility for one to 'walk the talk' or try to ensure consistency between actions and words. Although not specifically mentioned here by Josh, his comments point towards the power that teachers have as role models for their students. I think in order for students to develop sustainable thinking and practices there must be genuine role models for them to observe and learn from.

Furthermore, Josh goes on to describe how these tensions and potential hypocrisies result in an uncomfortable position for him. He suggests that in many ways it is easier to live and make decisions without considering sustainability issues. I argue that this discomfort and tension comes about because concepts of eco-justice and sustainability inherently challenge the very fabric of current Aotearoa New Zealand society. We live in a country which is not taking sustainability issues seriously and is failing to make changes to address key social and ecological issues as described in Chapter 1. Therefore, inevitable tension and discomfort arise for individuals who try to make decisions based on sustainability criteria which are counter-cultural. Again this tension is amplified by the grim reality that one cannot live in completely sustainable or ethical ways within the fabric of our society. In a frank admission, Josh reveals that perhaps he is not living his life any more ethically as a result of increased awareness of sustainability issues. He does, however, state that this increased knowledge and understanding has created significantly more tension for him and he attributes this partly to his involvement in this research project through his last ironic comment, "thanks".

Dealing with tension, potential hypocrisy, and discomfort is a very real issue for educators who seek to move towards greater levels of sustainability and eco-justice in their personal and professional lives. Eco-justice and sustainability cut to the very core of people's

²⁶ For further reading on sustainability issues related to transport, particularly air travel, I would recommend Monbiot (2007).

values, philosophy, and understandings, which impact on people's identity²⁷. As Josh has articulated, this process can be difficult; however, I believe an eco-justice and sustainability theoretical framework can be useful in dealing with these tensions. As discussed in Chapter 2, it is unhelpful to think of eco-justice and sustainability in terms of universal absolutes. There is no exhaustive code, or one-size-fits-all recipe for sustainable living that one must follow to be a sustainable citizen or educator. Rather, guided by key principles of care for and connection to human and non-human nature, for present and future generations, individuals and groups must work out what this will look like for them through dialogue, collaboration, and trial and error. This process will be contextual; it will look different in different places, cultures, and circumstances. This process may not ever alleviate the types of discomfort described by Josh, but it needs to guide people towards positive action for a sustainable future.

From the comments and discussion above, it is clear to see that the research process had an influence on Josh in terms of philosophy, values, knowledge, and behaviour. It would be an overstatement to suggest that this change was either a discrete process with a clear start and finish points, or that it was purely the result of research group readings and workshops. In Josh's case he was influenced by other people, particularly Dave Irwin who was a guest speaker at research workshop two (see Appendix E).

Dave Irwin's workshop was quite powerful around exploitation of environment and people and how they're subjugated by economic necessity.
(Josh, Final interview, Dec 09)

I was motivated to attend the staff sustainability workshop that Dave Irwin ran and I got a lot out of that. And in the process of that, I have also had some thoughts about how we can integrate that here over the next few years. (Josh, Final interview, Dec 09)

Josh's comments reveal a couple of points. First, that it is useful to seek information and perspectives from multiple sources or people when considering sustainability issues. This was a goal of the research process outlined in Chapter 4 – to involve different outside people in the professional development workshop process. Second, that Josh found Dave Irwin's sustainability workshops stimulating and powerful and this probably had some impact on the level of change,

²⁷ Irwin (2010a) discusses extensively the role of identity in adopting a sustainability perspective and educating for a sustainable future.

tension, and discomfort surrounding his philosophy, values, and understandings. Moreover, Josh gained some ideas from the workshop that he was aiming to implement into his teaching programmes and courses over the next few years. I now turn attention to the changes Josh has made to his course structures.

Implementing Change to Programming and Course Structure

This section discusses some of the changes that Josh made to his teaching programmes and courses within the broader time frame of this research project. It must be noted that many of the structural changes to these course were not a direct result of involvement in the research project. There were other institutional factors at play and existing strategic plans which were in the process of being implemented. What the research process was able to do was act as a catalyst for some of these changes and provide some guidance and focus for Josh in his roles, as captured in the comments below.

So the courses are restructured for next year. We've been re-writing our plans. (Josh, Final interview, Dec 09)

Really helpful for me were the, the papers that you sent out, the initial readings that you gave and the discussions we had around those. Because we are incorporating [a] sustainability focus into our courses as part of our strategic plan, it was very helpful to have umm, additional articles available that I could then use and, I've shared them with, with students of mine. (Josh, Final interview, Dec 09)

I think that this year has umm, also focused me on umm, developing resources for future courses. (Josh, Final interview, Dec 09)

Looking forward to the future, stealing resources from different areas and different people that I've gone to see. Umm, so I feel like I'm now in a good position to actually add good quality and integrate it into some of the courses next year, in particular, the Outdoor Education major. (Josh, Final interview, Dec 09)

Here Josh describes how he has been involved in re-writing course plans, in particular incorporating a sustainability focus, and how aspects of this research project have been useful in that process. Specifically Josh speaks about the professional readings that were distributed to the research group and the subsequent discussion that took place in research workshop 1. He

suggests that these were really helpful as both course material for students and in developing his own thinking and course material. Josh also states that being part of the research group has helped focus him on developing resources for future courses. This development of resources involved borrowing ideas from different sources. Again this highlights a goal of the research process to help build relationships within the research group and between teacher research-collaborators and outside experts in sustainability. Finally, Josh suggests he is now in a better position to integrate some quality sustainability outcomes and content into his future courses, particularly his outdoor and environmental education major paper. In part, what these comments from Josh reveal is how the research process was effective in facilitating professional learning and development for him. It also shows how Josh was able to develop and achieve goals relevant to his needs relating to sustainability and outdoor education. Some of this process for Josh is captured in the next section which explores some of the specific teaching and learning strategies which he developed as a trial.

Implementing Change to Pedagogy and Teaching & Learning Strategies

A key aspect of Josh's action plan was the development of two, sustainability teaching sessions in his major outdoor education course. Josh described these sessions as a pilot for what would be a greater focus on sustainability in the future. In Josh's research action plan he stated a goal of one-third of course material in the outdoor and environmental education major course to be sustainability focused in 2010. The description of the learning activities that follows was summarised from an informal interview with Josh in October, 09, due to his unavailability for a research group workshop.

- Introductory experiential activity: Students moving over resilient and non-resilient areas outside looking at impacts made on those environments. Students were then invited to consider and discuss how this activity might relate to greater ecological impacts by humans on the planet.
- Watch an audio-visual presentation about research into the ecological degradation of Easter Island with accompanying discussion in small groups.
- Watch a you-tube video entitled "The story of stuff", which critiques the dominant capitalist production-consumption process. Small group discussion task to follow.
- Article reflection: Students were given a chapter to read from Orr (2004). (This chapter was given to Josh as part of the research process). Small group discussion task to follow.

- Brain storm possible actions that might make a difference in terms of sustainability. Students were then encouraged to choose an action and focus on achieving that action over a seven day period.

(Josh, Workshop interview, Oct 09)

To complement the above teaching strategies and activities Josh also described some of the learning goals for these pilot teaching sessions.

[The goal of this was] to show I think that outdoor education does have a really important role in education for sustainability and show that there is a transference from our individual impacts – The Easter Island story draws the parallels to global technologies and paradigms that we have – and then look at individual actions and what they can do. (Josh, Workshop interview, Oct 09)

A key point revealed by Josh is the relationship between personal actions and impacts on the much larger biosphere of the planet. An example of this for Josh was the use of the Easter Island story to demonstrate how the actions of individuals and cultural or societal groups can have devastating and irreversible consequences for ecosystems upon which those very cultural groups rely for their survival. The focus on action which Josh alludes to in his teaching activities and learning goals is an important point to note here. Jensen and Schnack (1997) argue that the development of action competence is critical to educating towards a sustainable future. They suggest that “the concept of action competence includes the capacity to be able to act, now and in the future, and to be responsible for one’s actions” (p. 175). For Jensen and Schnack (1997) action competence included four key aspects: knowledge/insight, commitment, visions, and action experiences. These aspects have been built upon in an Aotearoa New Zealand context through the work of Eames et. al. (2010) who have developed an action competence framework specifically related to the New Zealand curriculum (Ministry of Education, 2007a). A key aspect of moving towards sustainable approaches in outdoor education is the development of action competence in both staff and students.

A further interesting point to consider from Josh’s pilot sustainability teaching sessions was the effect it may have had on the students. Whilst I acknowledge that impacts on students are difficult to measure and in many ways are beyond the scope of this thesis, Josh did make some observations about students’ reactions to his pilot teaching sessions.

[We have] people who have fully bought into sustainability at a really high level and we've got people hearing it for the first time more or less and exploring what it means and being challenged by that – coming from very much a 'how you hold your paddle' is outdoor ed – that is a big step and I could see that some of them were a bit uncomfortable. (Josh, Workshop interview, Oct 09)

I was quite uncertain as to how that would be received by, particularly the students who haven't really been exposed much to sustainability in terms of environmental and holistic sustainability. They've got quite a strong umm, social justice thread that runs through their courses but environmental sustainability is you know, probably a bit less focused. And they were really, very surprisingly supportive of that for me. It was a, just a two hour session that I ran for them and umm, I got some good feedback. (Josh, Final interview, Dec 09)

Here Josh reveals some interesting points regarding the diversity of students in his class in terms of their prior understanding, experience, and commitment to concepts of sustainability. Josh suggested that particularly for those students who held a traditional pursuits skill-based view of outdoor education, the overt sustainability focus of the teaching sessions was challenging and uncomfortable. He also talked about some surprisingly supportive and good feedback that he received from students. It is important to remember that these teaching sessions, which challenged the students to take action on a sustainability issue, were placed within the context of an outdoor education course. This reveals an explicit attempt by Josh to suggest that outdoor education is an appropriate and useful context for education for sustainability learning objectives. In this action Josh is contributing to a re-envisioning of traditional pursuit activity focused notions of outdoor education. It is clear through conversations and interviews with Josh he has thought about alternative possibilities for outdoor education and it is worth exploring some of these thoughts in more detail in the next section.

Envisioning Sustainable Outdoor Education

During conversations and interviews in the research process Josh made several comments pertaining to the relationship between outdoor education and various aspects of sustainability. In doing so he offered his insights into what a re-envisioned outdoor education theory and practice might look like. Some of these comments are captured and discussed below.

Outdoor education has this unique opportunity for us to interact intimately with that outdoors and learn a lot about our fundamental impact where the consequences are fully present and clear. (Josh, Workshop interview, Oct 09)

I see it [sustainability and outdoor education] as a good fit. I'm keen to move people along the continuum, you know, towards more sustainable practices. I see that happening in lots of different areas. I see the Leave No Trace stuff in terms of sustainability of our wilderness areas. I see that as being quite big learning for a lot of our students who are used to teaching on a sports field. (Josh, Workshop interview, Oct 09)

Here Josh describes some specific ways where he sees outdoor education and education for sustainability fitting together. Initially he suggests outdoor education experiences provide opportunities for both intimate interaction with environments and immediate and clear feedback to students about their impact on those same environments. He also sees the opportunity for developing sustainable practice or behaviours in students through outdoor education experiences. Although he sees this is applicable to different areas Josh gives an example of Leave Not Trace²⁸ offering opportunities for responsible care and use (guardianship) of outdoor recreation environments. Putting to one side the critiques and debates surrounding movements such as Leave No Trace, which could easily take a whole chapter or article, it is important to note that Josh sees a variety of ways of that sustainability issues can connect with outdoor education. A key challenge to consider here is how outdoor learning experiences in remote or pristine places connect students with sustainability issues that are predominantly related to the way they live their everyday lives in their mostly urban environments. Josh alludes to this in the following comments.

I think people, have to care before sustainability makes sense and they have to care for the environment or people or, ideally, both . . . in order for that behaviour to change to, to matter, yeah. (Josh, Final interview, Dec 09)

Here Josh proposes that people have to care for the environment and other people before they might be capable of making change towards more sustainable lifestyle choices and behaviours.

²⁸ Leave No Trace is an international environmental care and guardianship movement which is focused on inspiring and promoting responsible travel and recreation in the outdoors. Leave No Trace New Zealand offers a variety of learning workshops specifically relating to care of outdoor environments. See www.leavenotrace.org.nz for further details.

This is an important point by Josh. How care and affection for an environment is related to outdoor education is expanded further in the dialogue below.

Josh: The direct experience of nature, I think is a very powerful one and I feel like there's two aspects to that. People come back from an Outdoor Education experience having had a closer connection with a particular area with a kind of affection. I suspect that without that affection, umm, further progress is going to be impeded. . . Then after that, umm, I'm just going to use the term, transference because I think that it's appropriate, umm, of that experience back into the rest of their lives and their worlds and their communities.

Allen: Is that a big challenge?

Josh: Ohh, it's huge. Yeah, and facilitating that is very hard because it's umm, it requires that people are independent and act on their own with no, you know, it's not going to be assessed (laughs) in an academic way. It's going to be assessed in a global way.

(Final interview, Dec 09)

Josh shares his view that outdoor education experiences, which facilitate a direct experience of nature, can powerfully engender a connection to and affection for nature. This is an important point to consider further. As introduced in Chapter 6, environmental and place-conscious educator David Sobel (1996) states "what's important is that children have an opportunity to bond with the natural world, to learn to love it and feel comfortable in it, before being asked to heal its wounds". In many ways this is what Josh is advocating for, and he is doing so through the experiential nature of outdoor education. It is perhaps those direct nature experiences in outdoor education which can provide unique opportunities to bond with, connect to, love, and care for the environment. Furthermore the action competence framework (Eames et al., 2010) highlights experience as a key component of developing action competence towards sustainability for students. These links provide strong incentives for sustainability approaches to be included in outdoor education programmes, courses, and learning experiences.

The second key point from Josh's comments was the transference of love and care for the environment from pristine places, where outdoor education might traditionally occur, back to their urban lives. Setting aside the debate and critique of the term 'transfer' (see Brown, 2010), what Josh is advocating for here is connecting learning that takes place in outdoor

education experiences to other aspects of students' lives. While those lessons from outdoor education experiences might not be directly transferable, I think Josh is suggesting that in order for sustainability to be a feature of outdoor education, educators must be cognisant of learning that promotes action competence in students' everyday worlds and communities. After all it is in our local communities, our cityscapes and surrounding semi-urban and agricultural land where social and ecological issues are most prominent. As previously discussed in Chapter 6, this is a key issue for a re-envisioned outdoor education pedagogy which embraces sustainability principles

The third point revealed in the above dialogue with Josh is the difficulty in facilitating learning experiences which achieve the dual aims of connection to and love for nature and build capability to act in ways that are sustainable. As already discussed above, outdoor education is ideally placed for the first aspect of this learning due to its experiential qualities. It is perhaps the connection to everyday urban life that is the biggest challenge. Josh suggests part of this difficulty rests in the reality that it is students' individual behaviours and decisions, resulting from knowledge and values, which determine the success of learning in sustainability. As Josh comments, how do teachers know whether these types of changes are taking place; there are few academic ways of assessing this²⁹ although there will ultimately be potential global consequences to those decisions. This is an area for significant further research in Aotearoa New Zealand.

The place of sustainability in the New Zealand curriculum and how this relates to outdoor education is a further consideration when re-envisioning outdoor education. Josh make an insightful comment on this below.

Now something I wanted to add here is my vision for Outdoor Education in the future. I mean we talked a bit about sustainability maybe being grounded in Outdoor Education and I mean that, one of my concerns is that Outdoor Education is a bit marginal anyway and comes and goes a bit with teachers who are passionate and I guess that's probably the reflection on sustainability as well. I feel like unless it [education for sustainability] becomes mainstream, it's always going to be. If it's associated too strongly with Outdoor Ed, it's just going to be as marginal as Outdoor Ed is and it'll go

²⁹ Chapter 11 discusses the issue of assessment further and provides an example of alternative sustainability based assessment options for outdoor education.

through the same fluctuations and maybe that's the nature of the beast but it would be nice if it became more mainstream. (Josh, Final interview, Dec 09)

Here Josh reveals a very real concern that education for sustainability will become marginalised in school curriculums. He bases this on a view that outdoor education occupies a position on the margins of the New Zealand curriculum and offers a caution that if sustainability was to become only associated with outdoor education it could also be pushed to the side of what many consider to be the core of curriculum. This is an important point. While sustainability objectives may fit well within outdoor education it is imperative that they are also present across all learning areas in schools. As discussed in Chapter 3, the New Zealand curriculum, through its vision, principles, values, key competencies, and achievement objectives, is ideally placed to provide future focused, holistic and sustainable educational opportunities. This issue will be further discussed in the concluding chapter. At this point it is also useful to consider Josh's thoughts on the research process itself.

Teacher Perceptions of the Research Process

One of the research questions which underpinned this project was how collaborative action research facilitated professional development for teachers. It was therefore important to gauge the thoughts of teacher research-collaborators regarding their involvement in the research process. In response to a question about whether the research was collaborative and reciprocal Josh provided the following response.

Yeah, I thought it was successful. I mean I, I found that, you know, you expressed very clearly, early on, that your goal was that we make progress towards our goals and umm, you would support us in how we did that. I feel like that's been successful. So I feel like I've moved. This project has been an added incentive and an opportunity for me to move more towards the, the goals that umm, I had as well. So I, I feel like collaborative is a good term for that, co-dependent. (Josh, Final interview, Dec 09)

Here Josh shares that the research process was useful for enabling him to make progress towards goals that were specific to his context. While most of this progress has been discussed already in this chapter it is important to note that Josh felt supported throughout this process. In

this way he felt that the project was definitely collaborative. Another useful point made by Josh regarding the research group is captured in the comments below.

The group process was really useful. . . I think in terms of a community of learners, I thought that contributed significantly to the momentum of the project. (Josh, Final interview, Dec 09)

I liked that group of people. I value their opinions and their judgement and their experience and umm, I mean that's one of the things I got out of this project, is more connection to these people. (Josh, Final interview, Dec 09)

Here Josh alludes to the success of a group or collective approach to the research. He expressed that developing a community of learners added momentum to the project and that connection to other educators was one of the significant things he gained from the project. In addition to these positive comments, Josh also reflected on some of the weaknesses in the research process from his perspective. These are captured below.

I guess weaknesses are a combination of the workload that people have and the co-ordinating people together at specific times. You know, I could tell by the number of doodles, at meetings and looking at the list, you know, where people had ticked just like, wow, okay, it's so hard getting this group of people together. (Josh, Final interview, Dec 09)

You come through your early years and you've got endless energy and endless time and don't need that much sleep and now I find myself with somewhat limited time. I still feel like I've got good energy but it's not endless and I need to be really careful. So umm, I think that's probably a, an issue in the process. (Josh, Final interview, Dec 09)

The key issue that Josh highlights here was the workload issue for teachers and the subsequent difficulty in getting people together for workshops. On some occasions I had to run workshops without the complete research group being present which was less than ideal but became a pragmatic necessity. Josh also comments on the personal toll that high workloads can have on teachers and how he needs to be careful to manage his energy expenditure. This research project was additional to teacher research-collaborators already congested workloads and the impact of this was a key consideration for me as the research leader and facilitator. Josh has made several very good points relating to the research process. These points will be drawn

together with the thoughts of other teacher research-collaborators and discussed further in the conclusion chapter.

Throughout this chapter Josh has provided many comments about how the research process impacted on him personally, on his course programming, and on his pedagogy. It was a privilege and pleasure to work with Josh throughout this project and I thank him for his commitment and insight. It is now time to turn our attention to Bryn's involvement in the project and consider how concepts of sustainability, particularly through connection to place, impacted on his personal and professional life.

Chapter 9: Connection to Place, Outdoor Education, and Sustainability

This chapter explores Bryn's involvement in this research process at several levels. First, it examines how he developed his ideas about connection to place as a key aspect of a sustainable or eco-justice approach to outdoor education. Second it unpacks how Bryn views the role of experience of particular places in outdoor education and how connections to these places may impact on students' attitudes towards various sustainability issues. Third, it captures some of Bryn's thoughts regarding future directions for outdoor education in Aotearoa New Zealand and the research process as a means for professional development.

Context

Bryn is head of outdoor education and education outside the classroom (EOTC) at a mid-sized, urban, state, co-educational secondary school. In his roles he is responsible for two specific senior outdoor education courses; a year 12 National Certificate of Educational Achievement (NCEA) programme called Outdoor Recreation for New Zealand students, and an Adventure Education programme tailored specifically for international students. Bryn is also responsible for year 9 camps and oversees all educational experiences outside the school grounds as EOTC coordinator. Of further interest is Bryn's subjectivity as he engaged in the research process, in particular, his personal and professional beliefs and values regarding sustainability issues and how they relate to his roles as an educator.

I consider one of my primary goals professionally in, in teaching Outdoor Rec or Adventure Education, umm, is, is issues of sustainability. Umm, and certainly my background, everything that's shaped me in my upbringing, umm, my academic study, umm, steers me in that direction. So I consider it a prime focus to leave the Earth, you know, a better place if we can, and assisting students to see it the same way. Yeah. (Bryn, Initial Interview, November 08)

And you know, you're a living example of, I think it's really important that you're actually a model to students. You're modelling what you're umm, what you believe and I think that rubs off. (Bryn, Final Interview, December 09)

In the above Bryn reveals how he sees sustainability issues as a primary goal in his professional roles as an outdoor education teacher. He has also spoken in other informal conversations with me about how sustainability principles are important to him personally and impact on his practices and decisions. Bryn's position here is further evidenced through his focus on leaving the Earth "a better place", his desire to help educate students to do likewise, and his realisation that he is a role model to students in trying to bring about change towards more sustainable attitudes and actions. Bryn suggests there have been a number of influences on his beliefs about the environment, such as his background, family upbringing, and formal education which have "steered" him in that direction. Some of these educational influences are further revealed in the comments below.

I guess, when I trained in outdoor ed, I mean I did it with Bert and Barry, it must have been 1988 and there's a large gap between when I trained and when I actually taught outdoor ed. . . . It wasn't until I was working here and had the opportunity to develop a year 12 programme, that I actually started teaching it [outdoor education] and what I found when I looked at other people's programmes, it was actually something quite different from what I'd studied and trained in. I felt things had been very much hijacked by unit standards, sort of this pursuits model, you know, and that's the way programmes operated and incredibly, there was no, to me there was no actual environmental ed involved, which was a real core part of Bert and Barry's course. So I actually started a course here with the intent of, of umm, putting a bit more environmental ed into it. (Bryn, Initial Interview, November 08)

I've been involved with environmental education / education for sustainability professional development for several years. (Bryn, Final workshop, Dec 09)

Bryn reveals several important points here. First, when he originally trained as an outdoor education teacher in 1988 "with Bert and Barry"³⁰, he understood outdoor education to contain significant environmental education components alongside outdoor adventure activities. For Bryn this was important as it has informed his position whereby he views environmental and

³⁰ Burt and Barry's course refers to the outdoor and environmental education papers formerly taught by Bert McConnell and Dr Barry Law at the Christchurch College of Education.

sustainability education as an important part of outdoor education. Consequently Bryn talks about developing a course at his school with environmental education in it. Second, Bryn reveals his perspective that some contemporary outdoor education programmes in schools had become “hijacked” by outdoor pursuit activities and their associated unit standard assessments. He suggests that this focus was “quite different from what I’d studied” thus inferring a lack of environmental education in contemporary pursuit oriented outdoor education programmes. Bryn’s perspective here links to literature in Chapter 3 which shed some light on apparent disjunctures between outdoor education and environmental education which developed in Aotearoa New Zealand during the 1980s and 90s. This issue will be discussed further in the concluding chapter of this thesis. Third, Bryn acknowledges his involvement in professional development relating to environmental education and education for sustainability over several years prior to engaging in this research project. Consequently, Bryn brought with him to the research process a sound knowledge of environmental and sustainability education principles and practices, a personal investment in sustainability, and a commitment for sustainability as a key part of his professional practice. Given Bryn’s subjective position at the start of this project the next section discusses how the research process impacted on him.

Influences on Philosophy and Programming

It was always an intention for this project to allow for individual teacher research-collaborators to effect change in ways which were contextually appropriate for them. The previous two chapters explored how the research process affected Sophie and Josh at quite a personal and philosophical level as well as impacting on their resource use, programming, and teaching and learning strategies. In contrast Bryn’s participation in this action research project engendered change at a practical programming level which was useful for him in the development of more sustainable approaches to his outdoor education programmes.

I don’t think it’s impacted my beliefs and values around sustainability, umm, it’s more that mechanical level, actually getting stuff rolling, umm, at a programme level. That’s where I, I see the benefits for me, you know, we discussed before how after doing EFS PD³¹ in the past, I was a bit frustrated with Outdoor Ed as a vehicle. . . . But you know, it’s really given me the

³¹ “EFS PD” refers to previous education for sustainability professional development courses provided by Christchurch College of Education and University of Canterbury Education Plus that Bryn had attended.

opportunity to think a little bit more about umm, how our programmes work and umm, you know, I can see a road to go down, yeah, particularly around place-based education approach. (Bryn, Final Interview, December 09)

I mean what I have now is, is a bit more direction and an idea where I want to go with our programmes, you know. My focus is on that connectiveness thing umm, and it's certainly given me some direction around sort of place based education, but that sits really well with what we have done in the past and I can see is more we can develop. (Bryn, Final Interview, December 09)

In an honest response, Bryn states that the research project had little or no impact on his beliefs and values around sustainability. Casual conversations with Bryn revealed that this was most likely due to his prior experience, knowledge, beliefs, and passion for the environment and sustainability as discussed in the previous section. Where Bryn did feel he had made useful progress was in the development of his programmes. He described how participation in this research process has enabled him to think more about how sustainability can fit into his current outdoor education programmes. For Bryn this entailed an emphasis on place-based education approaches, particularly how connection to place might influence students' attitudes and behaviours towards more sustainable actions. How Bryn conceptualised connection to place is revealed in his comments below.

I mean for me, it's that connection and that love of place and appreciation of umm, you know, just using what's there makes me act the way I do, think the way I do and for me, that connection actually precedes the desire for action. Umm, otherwise it just becomes an intellectual exercise and well, for some people, that intellectual exercise, you know, we shouldn't damage it, can be enough. I think we need to actually compete with that, that connection is more a catalyst for, for change. (Bryn, Final Interview, December 09)

It's just, just an appreciation, well, it's more than, more than just an appreciation. It's actually a love of the natural world, an intimacy with the natural world. . . . You know, it's just great to have sort of these kids in the outdoors and, and they'll just go alone and sit on a rock, you know, and just for the simple pleasure of being there. I mean a lot of it actually comes out in discussion and, and even, you know, through formal questioning, things

that you don't really realise, that they're picking up in the process. (Bryn, Final Interview, December 09)

Here Bryn describes connection to place as more than appreciation of the natural world; he uses terms such as “love” and “intimacy”. He provides insight into what this connection might look like for his students by describing how they might “just go alone and sit on a rock . . . just for the simple pleasure of being there”. Furthermore, for Bryn, a sense of love and connection to the environment is linked to, and precedes, a desire for action. This is an important point. For outdoor education experiences to have a meaningful role in educating students for a sustainable future it is useful to have some focus on action or to develop action competence in some way. Here Bryn is suggesting that from his experience a deep connection to place has resulted in action. He then compares this to an “intellectual exercise” which he describes as making change because it makes rational sense. For Bryn, he sees that an emotional and experiential connection to place can be a greater catalyst for change than purely an intellectual or rational learning process. However, he also suggests that connection to place for his students is related to discussion and formal questioning. Whilst these are important parts of experiential learning approaches they perhaps highlight the complex relationship between cognitive/rational and experiential learning processes. This is an important consideration which will be further discussed in a later section. At this point it is useful to explore the actions that Bryn planned as he focused on connection to place within his programmes.

Taking Action – Investing in Connections

With Bryn's experience and passion for environmental education and sustainability, his action plan in this project focused on finding a way to make sustainability outcomes more applicable and central to his outdoor education programmes. For Bryn the key to this was to explore and enhance the concept of connection to place throughout his programmes. He was particularly interested in how connection to place might engender love and care for those places, and even help to change students' attitudes towards sustainability and environmental issues. The approach that Bryn adopted was to conduct some reflective questioning, both formal and informal, with his students into how the environments they had enjoyed during their adventure activities had impacted on them. For this process Bryn decided to focus on his Adventure Education programme which he described as “sort of quite place based; very simple activities which got kids intimate with the environment” (Bryn, Final Interview, December 09). Bryn's Adventure Education programme was a six month course designed primarily for

international students with a high experiential and low assessment focus. Bryn's choice to invest in connections to place in Aotearoa New Zealand with students from a variety of international countries presents some interesting potential issues which are worth discussing briefly.

International students bring their own personal and cultural attitudes, understandings, and behavioural norms with them to their Aotearoa New Zealand educational experience. It is reasonable to assume that this may present some differences between international and New Zealand students as well as some similarities. The implications for Bryn's action to promote connection with the environment may rest with the possible differences that this might mean for international students and concepts of connection. Is it possible to develop connections to places, landscapes, or environments that have been foreign to you for your whole life? How might personal and socio-cultural subjectivities influence the way that people experience and develop connection to places? How might these questions apply to students who have lived in urban Christchurch their whole lives? Thorough discussion and debate of these questions requires significant space and time and is beyond the scope of this thesis. It is however, important to be cognisant of these issues and recognise that learning from the types of experiences Bryn is facilitating is contextual and influenced by different subjectivities. Notwithstanding this caveat, it appears from student comments summarised by Bryn, that aspects of increased appreciation, care, and connection with the environment did occur through the Adventure Education programme. Some of the comments these students made in response to the formal questions presented by Bryn will be explored later in this section.

The formal questions were given to students via a written questionnaire, developed independently by Bryn, at the completion of their six month course. These formal questions (listed below) were supplemented by informal questions and discussion during the outdoor experiences that took place on the Adventure Programme.

Formal questions included:

1. Describe what experience you had in the outdoors in natural environments before you joined the Adventure Programme.
2. Describe your feelings about the natural world before you came here.
3. Have your feelings about the natural world changed since you came?
4. If they have changed, describe how you feel about the natural world now.

5. What do you think has caused this change?
6. If you think your experience on the Adventure Programme has caused this change, what features of the programme have caused it? (was it the activities? Was it what the teachers did/said? Was it something else?)
7. Do you think this change will affect your future actions?
8. If so what will you do?

(Bryn, Exploring Connectedness Questionnaire, July 09)

Discussion with Bryn about the responses from students to these questions revealed some interesting points about how he perceived his focus on connection to place may have impacted on his students.

It's been interesting, both through formal and informal questioning of the kids just to see what sort of impact that's [the Adventure Education programme] had on them and that's been really powerful for me because, clearly there is quite a shift in their perception. I mean, they actually come here with very little knowledge of the New Zealand environment or really even the wider environment. But they come here and they are quite transformed by their experience. They actually feel like they have a second home. They leave with quite an intimate knowledge of the New Zealand environment and a real appreciation for it and, yeah, a lot actually perceive that some of the attitudes that they now have will actually transfer into their wider lives once they get back home. (Bryn, Final Interview, December 09)

Here Bryn talks about a shift in perception for the students that has occurred in a number of ways. First, Bryn states that international students arrived in Aotearoa New Zealand with a lack of environmental knowledge both generally and specifically to this country. He suggests that this lack of knowledge changes through the Adventure Programme activities to the point where students have an "intimate knowledge" and "real appreciation" for the environments they interacted with. Bryn describes these experiences for students as transformative and suggests they feel like they have a second home, which can infer a sense of belonging. Second, Bryn suggests some students have new attitudes that "will actually transfer into their wider lives once they get back home". Further evidence for these comments is provided by the summary of

responses to the formal questions made by Bryn's students in Appendix R. As discussed above, these comments must be understood and interpreted in the context of them being made by international students. How these comments might have been different if they had been made by New Zealand students is conjecture. Nevertheless, it is important to recognise that these responses will differ based on all students' experience. For international students, their personal and socio-cultural perspectives may well have some influence here. Furthermore, it is beyond the immediate scope of this project to examine in detail the effects of initiatives or actions on student learning. It is, however, useful to briefly explore some student responses to questions to further substantiate Bryn's observations and comments. Some responses, and accompanying questions, relating to connection to the environment have been included below (number of students making the comment in parentheses).

Write a list of the gains you have made from participation in the Adventure programme.

- Greater connection with the environment / nature (2).
- Enjoyed/better view/knowledge/value/respect of the environment/nature/landscape (5).
- Knowledge about now days and former New Zealand nature (2).
- Know a lot of new places (4)

Have your thoughts and feelings about nature changed? Yes (14)/ No (2)

If your thoughts and feelings have changed, describe how.

- I've learned to enjoy nature and respect it, trying not to do any harmful actions to it. More I find peace when everything is silent.
- Now I feel closer and I know all the good things that this 'natural world' has to offer and I have learned how to enjoy the most of it.
- I can enjoy just a beautiful view or love to go for a walk just because the sun is shining. I look more at the nature around me and have more respect of it.
- Nature was just plants for me, with adventure education that changed. With the camps I saw that simple rubbish can change the whole environment of the place, and we have to take it off. It made me more conscious.

Do you think changes in your connection with the natural world will change the way you act in future? Yes (13)/ No (1)

If you think your future actions will change, describe how.

- Waste minimizing/recycling (4)
- Think more about/respect the natural environment when I do something (2)
- I think I will be a bit more responsible and take more care of not polluting/waste nature/mess my environment (3).
- I'll use my bike more.
- It will change a lot because where I live I don't have this connection that I have had here in NZ. So all I lived here open my mind to this...and to know how important it is.

(Student responses taken from Adventure Education Questionnaire – Summary of responses, Term 2 2010)

From the responses above it is possible to see that many students had positive learning experiences which increased their enjoyment and knowledge of, and appreciation for the Aotearoa New Zealand environment. However, this survey must be viewed with some caution. The circumstances in which it was conducted mean that any findings from it can be considered anecdotal at best. Furthermore, this survey does not really provide any depth of insight into the types of places students were supposedly connecting to or how this might have happened. It also focuses primarily on environmental attributes, leaving silences as to the cultural and historical stories which are so fundamental to 'knowing place'. As Stewart (2004) suggests, participating in outdoor education activities in environments without acknowledging these stories can lead to a colonial perception of place. This is even more relevant given that these were international students, with perhaps an increased dislocation from the cultural stories of various Aotearoa New Zealand places.

Notwithstanding the critique of the above survey responses, Bryn felt that many of those comments made by students were a positive endorsement of what he was trying to achieve in his programme, as discussed below.

Well [it was] quite enlightening really. Umm, yeah, I mean you don't get the feedback from the students in terms of attitudinal change; they don't tell

you well, my attitude's really changed because I came on this course. So you've actually got to look for it and actually elicit in, you know. I did attempt some formal questioning in terms of a questionnaire. . . It was retrospective in that they had to tell me through questioning, what their attitudes were before or whether they'd changed. . . . It was interesting, yeah, as I say, enlightening to see attitudinal change in the kids and I thought, woo, you know, this is cool. I'd like to explore this further and, and maybe tweak the programme to enhance it. (Bryn, Final Interview, December 09)

I see that connection, you know, connections made are then the catalyst for actions beyond the programme without specifically spelling out, well, you know, we need to do this, this, this and this. So I guess that's what I've been looking for really, is looking for ways to develop that attitudinal change in students rather than making umm, you know, ideas of sustainability prescriptive; you know, you should ride a bike, not drive a car. (Bryn, Final Interview, December 09)

Here Bryn describes aspects of attitudinal change in his student. He suggests that information or discussion from students about these types of shifts was difficult to elicit and only came about through the formal questionnaire he gave to his students. Although many of these questions were very open-ended, particularly relating to attitude change, there appears to be some positive responses from students regarding their connection to, love and appreciation of environments as a result of their involvement. Furthermore, Bryn speaks about how "connections made are then a catalyst for actions beyond the programme" and links these actions to sustainability. He is careful to explain that he has not been prescriptive about these actions; rather Bryn sees value in attitudinal change towards more sustainable behaviours rather than providing a list of things to do such as "ride a bike, not drive a car". Whilst actions such as reducing car travel are important, what Bryn is referring to here is deeper level of change which he perceives to come with emotional and experiential connection to environments. Again these findings must be viewed with caution. As Bryn is motivated to have sustainability and connection to place as central themes in his outdoor education programmes, he is more likely to both look for these changes in his students. It is difficult to draw any lasting or significant conclusions about the effectiveness of attitudinal change in his students given that the observations made here are based solely on Bryn's perspective. Notwithstanding this caveat, one aspect of Bryn's

programme that does appear to be significant is the experiential nature of the outdoor learning activities used.

It's more experiential, yeah. You know, I'm amazed at the attitude change in kids through experience without much direct input. You know, we'll do sustainability challenges and zero waste trips and that sort of stuff where, you know, the kids are actually practically trying to reduce the amount of rubbish they produce on a trip and that sort of thing. So I think it is really important to actually get some practical stuff in there but, yeah, it's around the experience rather than direct instruction. (Bryn, Final Interview, December 09)

Here Bryn links attitude changes in his students to experiences they had on his Adventure Programme suggesting that important changes may occur as a result of experiences rather than "direct instruction". He does qualify this, suggesting there was a balance between explicit practical learning opportunities about sustainability issues, such as reducing waste, and the experiential nature of being in the outdoors. This is an interesting and important issue for learning in outdoor environments and activities, particularly as that learning might relate to educating for a sustainable future. Outdoor education has long been strongly influenced by certain understandings of experiential learning, particularly ideas related to Kolb's experiential learning cycle as discussed in Chapter 3. Whilst this has been a perceived strength of outdoor education the value of experiential learning, particularly in relation to other forms of learning such as cognitive, rational, or situated learning, is being increasingly scrutinised and contested (Brown, 2009; Higgins, 2009). This presents further problems when considered in the light of global sustainability issues. Higgins (2009) presents the case that experiential learning alone is not sufficient to address these global issues suggesting that it is difficult to know about complex global issues such as climate change and biodiversity loss experientially. He therefore, suggests that critical reflection (rational learning) about specific environmental and social issues, the ecosystem processes which underpin these issues, and appropriate sustainable responses is crucial for students to develop deep understanding and strategies for a sustainable future. Notwithstanding this challenge to outdoor education programmes, Higgins (2009) still emphasises the value of experiential learning suggesting "experiential approaches to learning are ideally suited to developing appropriate understandings, attitudes, emotions, skills, and knowledge that can make a unique contribution to dealing with these [global sustainability]

issues” (p. 57). These types of discussion and debate highlight the work still to be done in developing appropriate theoretical perspectives for outdoor education.

The above statement by Higgins’ about experiential learning and sustainability appears to be reflected in much of Bryn’s thinking and his approach to his outdoor education programmes. Exactly how the outdoor experiences that his students have, contribute to changing attitudes and learning about and for sustainability cannot be fully known through this research approach. However, Bryn does offer some insight into the links between connection and environmental issues through the notion of caring.

I think you really need your head in the sand today to be oblivious to the fact that, you know, there’s a [environmental] crisis. You know, there’s plenty in the media . . . about what we need to do to address it. I think kids get, get plenty of that. Kids aren’t ignorant about stuff like that. You know, it does concern them. . . So I guess it’s just at that level of caring which I think is, is really important and if, if kids can umm, if I can develop that care and that desire in kids, that could make a difference. (Bryn, Final Interview, December 09)

Here Bryn suggests that in his experience students have knowledge of, and are concerned about, environmental issues. Furthermore he links the idea of concern about environmental issues to action through caring. He argues that a greater level of caring is important and that developing this care and desire for action is a key component of his pedagogy and “could make a difference”. This is an important point. If education is to contribute towards a more sustainable future then simply being concerned about issues is insufficient. As discussed in previous chapters, students must be encouraged and taught to take action; that is, develop action competence. Here Bryn uses the word “care” as a verb, meaning to look after, which implies action. What this care for the environmental might look like and where it might take place are interesting questions which were briefly discussed with Bryn.

Allen: Do you umm, ever think about or find it challenging, the idea that these kids might find caring for those places where they go away, you know, those beautiful places where they go on Outdoor Ed trips, as opposed to what they might do in their degraded urban environments and do you see a lot of crossover or connection there?

Bryn: What, that transference from what they did in the outdoors to what they did in the in the city?

Allen: Yeah

Bryn: Do I see it? Umm, I see it develop. Yeah, that's a good question. I've never actually looked for it. I mean I know it's there in terms of attitude in what they say. (Final Interview, December 09)

I suppose, I mean the way we operate, and will increasingly, is the places where we recreate are closer and closer to the city. Like, we do a lot in the harbour basin, for example, and I mean, the harbour basin is essentially a semi-urban area. (Bryn, Final Interview, December 09)

In the dialogue above Bryn is challenged to think about how learning to care for environments on outdoor education activities might cross-over into students' everyday lives in the city. Whilst he suggests there is attitudinal change revealed through what students say, he is not able to make a confident judgment about how students might care for their city environments because he has "never actually looked for it". Again, this highlights a key issue for outdoor education, which I previously discussed in Chapter 6 and 8; that is, how can connection to and care for places in outdoor education move from the pristine and far-away to the degraded and local. Whilst it is important to conserve our beautiful landscapes and associated ecosystems in the conservation estate, from a sustainability perspective these actions alone will not address global issues such as climate change, biodiversity loss, desertification, growing social inequality, poverty and food scarcity. Higgins (2009) provides further insight here suggesting developing connection to place in outdoor education experiences which are distant from where students live can lack authenticity and the potential for long lasting relationship. This is an issue which I believe outdoor educators must address if outdoor education programmes are going to meaningfully engage in education for sustainability and will be discussed further in the conclusion.

This section has discussed how Bryn observed and captured through questioning, aspects of attitudinal change in his students in regard to connection to and care for places and environmental issues. It has also highlighted the importance that Bryn places on experiential learning in this process. However, a cautious approach must be taken here. This research project focused on change for teachers rather than for students, and therefore offers no evidence other than the observations of Bryn and his summary of student responses to his formal and informal

questioning. Caution must also be taken when discussing how outdoor adventure experiences might specifically engender either attitudinal or behavioural change in students towards more place connected or sustainable practices. There is significant potential here for further research in the Aotearoa New Zealand context. Notwithstanding these caveats, it is useful to explore how understanding students' experiences and learning has helped Bryn in the developing the future directions of his outdoor education programmes.

Future Directions

As part of Bryn's involvement in this project he was able to utilise the responses that students offered to his reflective questioning to both justify existing learning activities and experiences in his programmes and provide guidance to the future directions for these programmes. Some of Bryn's thoughts into this process are captured below.

It's been interesting, both through formal and informal questioning of the kids just to see what sort of impact that's [the Adventure Programme] had on them and that's been really powerful for me because, clearly there is quite a shift in their perception. (Bryn, Final Interview, December 09)

So that, for me, has really affirmed what we do and been really positive and for me, that's significant because it actually goes back to, what, for me, I believe is the core for my, or at least the origins of my beliefs and appreciation of the environment and my early involvement in the outdoors. . . . I can actually see the way now to transfer a lot of what we do in that programme [Adventure Education] through what we do with the New Zealand kids at level two NCEA course. . . . [The next step is to] really push the place-based thing, yeah, and actually looking to move over a lot of the activities that we do with the internationals with the New Zealand kids. (Bryn, Final Interview, December 09)

Bryn describes the feedback he gathered from students via the formal questionnaire as "powerful", "cool", "enlightening", and "significant" because it has affirmed the focus on connection to place that he has developed in his Adventure Programme. He sees it as making a difference and improving environmental learning for his students which provides congruence for Bryn as those are key parts of his outdoor teaching and learning philosophy. It also has practical implications to the way that Bryn develops his programmes. He talks about "tweaking the programme" to enhance place-based approaches and attitudinal change and transferring many

of the teaching learning strategies from the Adventure Programme into his Yr 12 NCEA Outdoor Recreation course through focusing more strongly on a place-based approach. What this might look like in practice is revealed further in the comment below.

I'm still going to do that stuff [rock climbing and kayaking] but it's actually going to be much more connected with where you go, around, you know, the whole eco-literacy for the area you move in. I'm really looking to concentrate on sort of the coast to the high country, you know, Canterbury, sort of iconic stretch of country from the main divide to the coast, you know. It's just something kids can really identify with as, as their place and also touch on, you know, what's impacting on that. (Bryn, Final Interview, December 09)

Here Bryn talks about how traditional outdoor pursuit activities will remain part of his programmes but how those activities are framed in a different way. He uses the terms connectedness and eco-literacy when talking about how he wants students participating in those activities to interact more meaningfully and deeply with the environments where the activities occur. Bryn also talks about Canterbury as an "iconic stretch of country" and one to which students who live in Christchurch can identify with as "their place". These are important considerations and observations for Bryn to make in several ways. First, he identifies the need for outdoor activities to be place sensitive; that is, the facilitation of activities takes into account the environments, ecosystems, and communities where they take place and actively nurture a sense of connection, love, appreciation, and care for those places. These concepts fit well with Martin's (Martin, 2008a) interpretation of ecological literacy. Emphasising the development of eco-literacy for students through outdoor learning experiences also infers that they will be critically reflective and aware of the appropriateness of their relationship with and impact on those places. An eco-literate perspective in this sense will seek to intimately know, care for, preserve, and even enhance these places for future generations. Second, Bryn talks about how he perceives the connections students might make to local Canterbury places to be important. Here Bryn is talking about how it is important to develop connections with the places where you live rather than far away or remote places. As discussed in the previous section, it is this focus on the local which is critically important if outdoor education experiences are to meaningfully contribute to learning which impacts on students to take action towards a sustainable future. Bryn also makes some comments on a broader view of outdoor education as captured below.

The whole idea [sustainability] is getting out there. I think there is a, you know, sort of a move for change in Outdoor Ed and I'm really encouraged, you know, that it should be wider and not limited just to programmes. And that's really cool because I'm just thinking Outdoor Ed is just such a perfect medium for it [sustainability]. I mean lots of curriculum areas are doing it and I'm really pleased that Outdoor Ed, things are beginning to move.

Here Bryn was referring to an increase of articles in different outdoor publications such as *Ki Waho*, *Out and About*, and *NZOIA Quarterly*, which dealt with sustainability, place-based, or environmental themes. Bryn sensed that there was a trend developing in the outdoor education sector where those themes and associated issues were becoming more widespread and there was a move to incorporate more sustainability, place-based, and environmental education into outdoor education programmes. Bryn also expressed his enthusiasm for outdoor education as a medium for education for sustainability and sees this as a useful direction for outdoor education to move in. This perspective aligns with many of the common threads which run through this thesis and will be discussed in more detail in the concluding chapter. The final section of this chapter explores Bryn's views on the research process itself.

Teacher Perceptions of the Research Process

Considering how collaborative action research facilitated professional development for teachers was one of the research questions which underpinned this project. Therefore, it was important to gauge Bryn's thoughts about the research process, in particular how had it been effective or useful for him and had it met the aims of being reciprocal and collaborative.

Well, I mean the traditional model of professional development, I think is pretty passive. I mean as action research, using the action research model has actually actively involved us. So rather than passively sit down and listen to something and think 'that's good, I must do something about that one day', it has actually involved us more in that action process which I think has been really, really positive. So as an opportunity to actually sit down, collaboratively discuss ideas, umm, and promote individual thought and action, it's been really good. (Bryn, Final Interview, December 09)

I feel I've got heaps out of it, yeah. . . . I think that collaborative approach is really beneficial to people who, a lot of us are kind of, certainly in my case, I'm alone, largely. I run the department by myself and umm, that

networking with others is really important. . . . Bouncing ideas off this sort of forum has been really, really beneficial for me, yeah. (Bryn, Final Interview, December 09)

Here Bryn reveals a number of positive points about the research process. First, he found it actively engaging in contrast to traditional professional development models which he viewed as “pretty passive”. Bryn highlighted how his active involvement leads to action (in his case using reflective questioning with his students to further develop the place-based learning potential of his programmes) which he found to be really positive. Second, Bryn found the collaborative nature of the research process to be highly beneficial. In particular he found getting together with other educators to talk with them and share ideas to be useful, especially as he operates largely in isolation in his school due to being in charge of a small department with few other staff. In the Teacher Professional Learning and Development Best Evidence Synthesis Iteration (Timperley et al., 2007, p. xxvii), the authors identified a number of aspects of effective professional development for teachers relevant to Bryn’s comments. These include effective professional learning contexts which: actively engage teachers in learning; challenge prevailing discourses; and provide opportunities for participation in a “professional community of practice”. Given Bryn’s comments, it appears that aspects of this research process may be consistent with aspects of effective teacher professional learning and development. This will be discussed in more detail in the conclusion in conjunction with other perspectives on the research process from other teacher research-collaborators. It is now appropriate to move to the next chapter to consider the involvement of Mike in the research process and how he implemented changes in his programming and pedagogy in order to more effectively educate his students about sustainability issues, knowledge, and action.

Chapter 10: Developing Deep Level Understandings of Sustainability

This chapter, as the previous three case studies have done, seeks to capture the experiences of Mike as he participated in this action research project. Central to this discussion is the way that Mike developed deeper conceptual understandings of sustainability in relation to outdoor education, and how he encountered tensions and contradictions which impacted him personally and professionally. Prefaced by outlining Mike's context and perspectives at the beginning of the research process, the discussion in this chapter is structured in the following way. First, it considers how the research process impacted on Mike's philosophy and understandings of sustainability as they related to his outdoor education programmes and the wider leadership and learning roles he holds in his school. Second, it explores how Mike further incorporated understandings of sustainability into his programmes through a teaching and learning module which reviewed outdoor activities using a 'triple-bottom-line' analysis. Third it discusses Mike's conceptualisation of sustainability and accompanying tensions. Fourth, it outlines Mike's perceptions of the research process as a means of professional learning and development.

Context

Mike is a teacher in a progressive special character, coeducational, state secondary school where his primary role is that of a learning advisor. He has responsibility for outdoor education and Education Outside the Classroom (EOTC) which includes teaching two outdoor education classes, a junior class for years 9 to 11 and a senior class for years 12 and 13. These two programmes are made up of smaller discrete modules of learning. Mike is also beginning to have senior leadership roles in the school as a syndicate (floor level) team leader, as revealed below.

I feel now I'm in a position to actually affect some change and the change that I'm affecting is getting bigger and bigger and more influential, so that's, and that's, like you're saying, that growth in maturity and that learning. I'm about to embark on a whole lot of stuff that's going to really challenge me in leadership roles and in terms of trying to set directions for other people, but you know, rather than necessarily working purely with students, I'll also be working with staff and trying to capture some of these [sustainability] ideas

without shocking them and without turning them off. (Mike, Final Interview – Part 1, Dec 2009)

Here, Mike is talking about his changing roles in the school and how his position of influence is increasing. Without entering details of these changes for Mike, which are beyond the immediate scope of this thesis, it is interesting to note how these changing roles impact on Mike. In particular, he suggests that his ability to engage sustainability issues in learning moves beyond students to include working with other staff. This development perhaps reflects some of Mike's thinking around the broader applications of sustainability to student learning. Prior to this interview, Mike had been reading a book I had lent him, *Sustainable Education: Re-visioning Learning and Change* (Sterling, 2001). Mike indicated to me that this book had made quite an impact and had significantly influenced his thinking. Sterling (2001) talks about sustainability in education in a broad sense and argues for a paradigm shift in education to bring about transformative change towards a sustainable future. Mike's comment above reveals a future desire for sustainability principles to be present in his outdoor education programmes and in his emerging leadership and learning roles in his school. There are two other factors which have influenced Mike's involvement in this project as discussed below.

I found it umm, sort of hard in some ways being away. So it was hard to actually capture a project in that sense, but then I'm not sure how much I would have anyway umm, in that it [the project] was actually sort of overlaying over the top of a lot of the things that were underway already. We had Bokashi systems in place, the philosophy of what I was trying to transmit through my outdoor programme to the students involved in that programme was consistent with a lot of what's been happening here, umm, what's been happening in the [research] group. (Mike, Final Interview – Part 1, Dec 2009)

This first point revealed by Mike was the fact that he missed 10 weeks of the action research due to travel to Europe with his family during Term 2, 2009. Although he was involved in the initial interviews he missed workshops 1 and 2 (see Appendices 5 and 8). This meant that when Mike came back into the research group in mid 2009 at workshop 3 he had not developed any particular action plans to implement in his school context. I spent some extra time talking with Mike and, as he was still very keen to remain involved with the research, we put in place a plan whereby he implemented some action ideas in early 2010 to be evaluated later in that year. This action initiative is discussed in a subsequent section. The second point Mike's reveals here is the

extent to which he was already attuned to sustainability issues and how aspects of environmental care and sustainability were already in place in his outdoor education programmes. This is evidenced in his efforts to reduce waste through Bokashi composting systems. It was important to consider Mike's previous value positions before the next section examines how the research process impacted on Mike's thinking, practices, programmes and pedagogy.

Impacting on Philosophy and Understandings

Despite Mike's disrupted participation in the project, he still felt that it was valuable and he gained some significant benefits from his involvement as revealed below.

Starting with the conversation that we had last year through to now, I've seen the whole thing, the whole idea of, around sustainability and the kind of things you've been discussing sort of percolate to the top and it's, if there's anything that's happened for me in the last year, it's been like, umm, sort of a, a congealing a clarity of, about what it's all about and how it might work and that's, I guess, combined with a whole lot of other strands that are sort of coming together. (Mike, Final Interview – Part 1, Dec 2009)

It takes a while for things to percolate through for me. It's sort of, like I was talking about, how it's sort of congealed and come to the surface and solidified and developed its own shape. Umm, and that takes time and it takes a lot of time, sifting through my brain, umm, as it's filtered out. Umm, because it is deep stuff and some of the stuff there is actually quite confronting in terms of models but then a lot of that is stuff that I've been thinking about anyway, you know, for a long time. (Mike, Final Interview – Part 1, Dec 2009)

In the comments above Mike reveals how the research process has impacted on him personally and professionally. He describes how the idea of sustainability has “percolated to the top” though the discussions in the research process. He states that there has been a “congealing”, “clarity”, “coming together”, and “taking shape” of his philosophical and pedagogical position pertaining to sustainability and environmental issues in outdoor education. Developing these understandings does not appear to have been straightforward or easy for Mike. He talks about how this process “takes time”, how it has been dealing with “deep stuff” and how it has been “quite confronting”. These are interesting points and provide some insight into how deep level

thinking which engages teachers' beliefs, values, and understandings can be an important part of teacher professional learning and development. In discussing quality teacher professional learning and development, Timperley, et. al. (2007) offer several key points which relate to Mike's experiences. Whilst acknowledging that substantive change in teachers' professional practice is difficult, Timperley et. al. suggest that helping teachers develop new understandings and providing opportunity for these understandings to be discussed and negotiated is important. Furthermore, they suggest developing understanding occurs through instances where new understandings are consistent with current positions and also where there is dissonance between these understandings and existing positions. For Mike there appears to be elements of both of these processes in his involvement in the research process. He describes how he has dealt with some "deep stuff" and how this has been "quite confronting", which points to some degree of dissonance between his existing values and thinking and new understandings. Mike also talks about a "coming together" of his thinking how some of the thinking was "stuff that I've been thinking about anyway . . . for a long time" which indicates consistencies between new understandings and existing positions. These outcomes for Mike have influenced ways in which he views sustainability in both his outdoor education programmes and his wider school.

So I think that's actually coming through. I feel in a really good position to sort of umm, put some of the stuff that we've been discussing into place both in my programme but also in a wider level in terms of the school and it's the same thing we're talking about. We're not talking about outdoor education. We're talking about learning and about our approach to learning.

(Mike, Interview, Dec 09)

Here Mike talks about how the developments in his thinking and understandings have resulted in him being in a good position to put aspects of sustainability into his outdoor education programmes. The action he takes in this regard is discussed in the next section. He also talks about wider learning contexts and the need for sustainability to influence all aspects of learning suggesting "we're not talking about outdoor education". This is related to concepts discussed by Sterling (2001) who argues that sustainable education is about re-visioning learning in the broadest sense to incorporate aspects of transformative change across the curriculum. This is an important point made by Mike. It is my opinion that the opportunities for eco-justice and sustainability in schools should never be corralled into particular subject area or programmes. Rather to achieve elements of transformative change schools must adopt a holistic approach to learning which incorporates sustainability principles across all learning areas. New Zealand

schools have the potential for this approach through the New Zealand curriculum (2007) where many facets of eco-justice and sustainability can be found within its vision, values, principles, and key competencies. The extent to which New Zealand schools are already doing this is unknown. However, it is possible to suggest, given Mike's ambition, that there is still work to be done in integrating sustainability and eco-justice ideas across "wider levels" of his school. Given this context and Mike's desire to enhance sustainability principles in his programmes and across his school, it is now important to consider how he implemented change in his programmes and pedagogy.

Taking Action, Making Change

Mike's primary action from this project was to develop a three-week module looking at how he could incorporate sustainability principles into his programmes as described below.

I'm looking at spending three weeks looking at how outdoor education can work sustainably. So setting some of the values and ideas up that's going to run right through the programme all year. (Mike, Final Interview – Part 1, Dec 2009)

I'm not going in with any fixed agenda about this is how it will be. I'm going to be putting out the questions and asking those questions and working off some of that Stephen Sterling stuff and putting out the challenges. (Mike, Final Interview – Part 1, Dec 2009)

In the above Mike describes what he wanted to put into action in his outdoor education programmes. This involved a 3-week unit where he would look critically, with his students, at how sustainability "values and ideas" might influence his current programmes and associated learning activities. This module was to take place at the beginning of the year, hence Mike's comments about those ideas running "right through the programme all year". The intended process that Mike talks about for this module was quite open with little fixed agenda. He does however talk about asking questions, "putting out challenges", and using ideas from Stephen Sterling's book *Sustainable Education* (2001). Mike's comments above were made in late 2009 and he was keen to implement this new module in early 2010. The details of how Mike implemented this new module in early 2010 are captured below and are worth quoting at length.

I focused on discussing, in a workshop type forum, sustainability in outdoor education. How could we do it? Essentially students drafted up some ideas about what we thought was good practice, and we did some classroom stuff and we did some practical stuff outside as well. With the classroom stuff one of the things we did was a triple bottom line analysis of one of the regular tramps which we do. . . Looking at it in terms of the financial costs, what the students paid and how much was spent on the trip and how it all balanced out, we got the balance on the economic bottom line. We looked at the social bottom line. So what was it like for students going on that trip in terms of how they felt and what benefits they got out of it. . . just the social benefits and the social impacts of the trip and they were definitely on the plus side. And we looked at the environmental impact and did the balance, and in fact the students felt, you know, in terms of just purely the trip from when we got out of the vans to walking through the hills and coming back to the van the environmental impact was pretty minimal and when you look at it against the benefits of the other two bottom lines it was actually reasonable and there were things we could do that would counter that. We've got Bokashi systems and recycling for rubbish as well as poo pots. . . . Then the students look at it in terms of, what is the cost of us travelling to and from these activities. We started looking at the vehicle options and whether or not it was cheaper or better to use [public] shuttles or what other options there were. One group decided to reduce our impact we were going to cycle all the way from Christchurch to Mt White and then started to figure the amount of time it would take and found it was 2 days to get there and 2 days to get back. . . . They started to see that in fact we were making a whole lot of critical decisions in terms of balancing these factors. The outcome of it was that they felt we had to use the van – it was the logical thing to do – but they were concerned about the environmental impact of the van and the idea came through that we could do some offsetting, so we could do some planting and that is something I need to follow through on. We even went down to the point of look at gas cookers and what was the appropriate way to go – so we did an analysis of the carbon footprint of different types of cookers – gas canister vs. white spirits vs. meths / alcohol stoves. We decided we should probably move to the Trangia style meths /

alcohol stoves rather than the gas canisters. The meths was a lot cheaper and the cost on the environment was a lot less. The other option we looked at was just using fire, that, you know, lighting a fire responsibly can in fact be reasonably low impact on the environment. (Mike, Final Interview – Part 2, July 2010)

In the above vignette, Mike describes a learning process with his students which reveals a number of interesting points. First, the students were actively engaged in the learning process, using critical analysis to develop potential improvements to their tramping trips based on sustainability principles. This process was mostly cognitive although drew on many of their previous experiences in Mike's outdoor education courses. This again highlights the complex relationship between experiential learning and other learning methods such as rational thought, discussed in the previous chapter. In this case Mike saw value in engaging students in a theoretical and rational analysis exercise which had implications for their outdoor practice. This is an important point when we consider the relationship between eco-justice, sustainability, and outdoor education. An eco-justice and sustainability theoretical framework offers a critical perspective by which educators and students can challenge pre-existing thinking and practices, and work towards more sustainable alternatives. This process cannot be completely experiential. As in Mike's case it should involve aspects of cognitive and rational thinking which can impact on practice and action.

The second point revealed here was the way a “triple bottom line” analysis was used with the students. This analysis was useful in that it engaged students in looking at their tramping experiences and practice from a holistic perspective which considered economic, social, and environmental costs and benefits. Although few exact details of the costs and benefits, particularly related to economic and social aspects, were given, there appears to be evidence for students gaining an appreciation for how these three aspects of sustainability interact and influence each other. This was revealed in the statement “the environmental impact was pretty minimal and when you look at it against the benefits of the other two bottom lines it was actually reasonable”. Notwithstanding the learning for students from this process, triple bottom line approaches to sustainability have been problematised for their tendency to become dominated by economic considerations (Neumayer, 2003; Sustainable Aotearoa New Zealand Incorporated, 2009). In contrast, strong sustainability approaches, which were discussed in Chapter 2, recognise that no social or economic benefits are possible without a healthy and sustainable environment. This is consistent with notions of eco-justice articulated by Bowers

(2001b; Bowers, 2001d) which are based in a holistic approach to social, ecological, and environmental justice issues. It is useful for educators to be aware of these theoretical trends as they innovatively develop their pedagogy as Mike has done here.

The third point of interest was the way the Mike helped students connect theoretical analysis with practical actions. We can see from the above that students critically examined their transport requirements and although considering cycling as an alternative, decided that judicious van use was in fact OK given other factors in the analysis such as travel time, current environmental good practices, and the potential for offsetting carbon emissions. An example of current good practice was dealing with waste from trips in a sustainable manner through Bokashi composting systems and recycling. Proposed future actions for students included planting trees to counter the carbon emissions of van use. The students were also invited to critically examine the use of different types of cookers and decided on a preferred option which reduced environmental impact. These are important learning points which help students to develop the competence to take action. Furthermore, Mike relates the learning in this three week module to wider learning opportunities about sustainability in his outdoor education programmes.

They leave with some quite strong shared values around sustainability and good practice which they take with them, and it's not something that I say 'you must do', it's not been imposed from the top. I show them a way of doing things that means they can operate without impacting as heavily on the environmental as they would otherwise. It's not something that I've dictated, it's something that I've modelled and it's something that they have followed and that's for me where the most powerful learning happens – is that in fact people willingly adopt things. I think that what it is that people will do it when other people aren't watching, that's the real test. . . . If you continue to use that good practice when no one else is there and you don't need to do it then that's embedded and that's what is important. I don't think you can achieve that by making people do stuff. (Mike, Final Interview – Part 2, July 2010)

I guess for me the critical thing is actually, I've got a group of students who I have affected and who have taken on the type of values that I think are important, they've taken them on in terms of their actions. (Mike, Final Interview – Part 2, July 2010)

In the above comments, Mike reveals how students leave his courses with “some quite strong shared values around sustainability and good practice”. He states that he has affected students and helped them to develop values around sustainability which have impacted on their actions. He then talks about the process by which he helps students to develop these values and practices. Mike emphasises how he models good practice by showing them ways to “operate without impacting as heavily on the environment”. He explains that student learning through this modelling process is not “imposed” or “dictated”, rather it results in students choosing to use good sustainable practice “when other people aren’t watching” which results in change which is “embedded”. Mike sees this learning as powerful and suggests that it can’t be achieved by “making people do stuff”. These are important points made by Mike. Here he is talking about a deep level of learning and change for students which moves beyond simple knowledge recall or skill demonstration to one which contributes to students’ developing action competence. Action competence, originally conceptualised by Jensen & Schnack (1997) and reinterpreted in an Aotearoa New Zealand context by Eames et. al. (2010), infers the capacity for people to be able to act responsibly with regard to sustainability both now and in the future. It appears that Mike is confident that his students have some competence to act in a sustainable manner in outdoor recreation activities. However, the contexts where students might take action are important. As discussed in previous chapters, how does helping students to act sustainably on outdoor education trips impact on their ability to make sustainable decisions in their everyday lives. During our final interview I asked Mike how he connects sustainability in outdoor education and sustainability in everyday lives in the city.

I didn’t do it explicitly I was actually short on time- it was a 3-week block. I left them to do a wee bit of thinking work for themselves, looking at The Inconvenient Truth so there was a link between the whole sustainability thing and wider global issues. I didn’t have the chance to actually sit down with them per se and link it through. We really were stretched time wise and that was one of the constraints really. (Mike, Final Interview – Part 2, July 2010)

I’m continually using the outdoor trips that we do as a context for getting students to think about their own lives in terms of as a metaphor for what they could be doing in terms of their interactions with themselves, other people and the environment as well. They come away for the outdoor ed

trips with a real high sense of value of the outdoors; getting that to spill over and change their behaviour in their daily life is a bit more difficult. (Mike, Final Interview – Part 2, July 2010)

In the above, Mike acknowledges a lack of explicit teaching and learning which connect sustainable attitudes and actions in the outdoors to everyday life. He does talk about making links to wider global issues, such as climate change, but this tended to be left to self-directed learning for students and watching documentaries such as *An Inconvenient Truth*. Mike also talks about the using outdoor trips as a context for getting students to think about themselves and their relationships with other people and the environment. In this sense he is making some explicit attempts to connect students learning between outdoor contexts and everyday life although he is cautious about these outcomes. Mike suggests students have a “high sense of value of the outdoors; getting that to spill over and change their behaviour in their daily life is a bit more difficult”. This is an important point and one which has been discussed in previous chapters. This is a developing theme which will be explored further in the conclusion.

This section has explored the actions that Mike took within his outdoor education programmes as a result of his involvement in this project. These actions were influenced by Mike's own values, contexts, and understandings of sustainability and eco-justice. During interviews Mike and I discussed how the project had influenced his conceptualisation of sustainability and it is worth exploring some of his thoughts on this now.

Conceptualising Sustainability

Mike provided some insightful comments about how he viewed sustainability and how outdoor learning experiences might contribute to educating towards a sustainable future. These are of interest due to the key role that developing understanding has in teacher professional learning and development.

Sustainability, for me, is about everyone having a fair share of the pie. But in having that share of the pie, that it's not just about people, it's about everything having a share of the pie. It's about doing things in a way which means that it can continue to go forward. I'm very aware that we are faced with . . . a major catastrophic change to the way humans live on earth. We can't continue to live like we're living. . . . So we need to change the whole expectation of what we have in terms of how we live and what we do and

we need to refocus what is actually important in life which is people and relationships with each other and with nature and with, with societies and with all of the things in a huge web. That needs to be done in a way which isn't going to result in conflict, be it conflict between people or with nature. So it needs to be in balance. (Mike, Final Interview – Part 1, Dec 2009)

That's what sustainability is. I guess, for me, it's actually that harmonisation between people and the environment, and people and people. (Mike, Final Interview – Part 1, Dec 2009)

Here Mike reveals an understanding of sustainability which is underpinned by social and ecological justice perspectives. This is evident, firstly, in his articulation of everyone having a "fair share of the pie". He qualifies this by stating "it's not just about people". This shows Mike has a view that sustainability includes some form of equality for all people and the environments and ecosystems where they reside. He explains this further by suggesting we need to "refocus what is actually important in life" and concentrate on quality relationships with other people, society, and nature. Secondly, Mike reveals an ecological perspective through describing those people/society/nature relationships as a huge web. He talks about that web of relationships being in "balance" and "harmony" in order for sustainability to be achieved. These comments by Mike are commensurate with the eco-justice and sustainability theoretical framework conceptualised in Chapter 2, and demonstrates the importance of viewing sustainability from a holistic perspective which includes socio-cultural, economic and ecological/environmental perspectives. As has been seen in previous chapters, often discussions around sustainability with outdoor education teachers tend to focus on the environment. Although Mike provides few details of how socio-cultural or economic aspects of sustainability fit into his programme, it is significant that his understanding encapsulates this broader holistic perspective. How Mike's understanding of sustainability might relate to his view of outdoor education was further revealed in his later comments below.

I view outdoor education as being probably one of the few holistic subjects of all of the disciplines in our schools I know some people view outdoor education as being a whole lot of hard skills but my view is that outdoor education is not about the skills, umm, hard skills and particular disciplines. . . . I view outdoor education as being personal learning and learning about others, it's about the relationships you develop with people, it's about the trust and comradeship you develop, the respect for each other, respect for

the environment, respect for yourself, all those things are what outdoor education is about. (Mike, Final Interview – Part 2, July 2010)

Although Mike makes no specific mention of sustainability or eco-justice in the above statement he does reveal a philosophical position which is consistent with his articulation of sustainability. This is evidenced in his view of outdoor education as a holistic subject which is focused on personal learning and respectful relationships with people and with the environment. Mike states that “all of those things are what outdoor education is about” and in doing so develops the pedagogical space and opportunity to incorporate sustainability and eco-justice principles into his outdoor education programmes. Mike also differentiates his view of outdoor education from those based on “hard skills³² and particular disciplines” whilst recognising that some people view hard skills as central to outdoor education. As discussed in Chapter 3, dominant thinking and practice in outdoor education in New Zealand has been centred on outdoor pursuit activities with aspects of personal and interpersonal development along with some environmental care. What is important here is Mike’s articulation of a philosophical position about outdoor education which allows for holistic teaching and learning experiences. Furthermore this position provides opportunities to include education for sustainability objectives. Such a position does not come easily however, as Mike talks about contradictions, frustrations, and tensions related to incorporating sustainability perspectives into his personal and professional life.

Tensions and Contradictions

During interviews where Mike and I discussed sustainability issues and how these were relevant to outdoor education and the wider educational context of his school, a number of comments arose which revealed tensions, frustrations, and contradictions for Mike, in relation to rhetoric-reality or theory-practice gaps. These are discussed below.

There is a lot of lip service for sustainability but I don’t see a lot of work on the ground. That’s the fundamental problem isn’t it really. Sustainability is the ‘new black’ I suppose. So everyone wants to be sustainable because that’s the thing to be seen to be. (Mike, Final Interview – Part 2, July 2010)

³² In the New Zealand outdoor education context the term ‘hard skills’ is used to talk about the technical skills associated with outdoor pursuit activities such as rock climbing, kayaking, or mountaineering.

I think it's, it's easy to make assumptions and I think a lot of people operate at a very surface level in terms of a lot of things and they do that here [in Mike's school] and a lot of people, myself included, probably make umm, lots of compromises and they have sort of, some faux values that umm, they feel good about but really probably aren't quite as deep or as embedded as they might be. (Mike, Final Interview – Part 1, Dec 2009)

In the first comment above Mike describes how he sees “lip service” being paid to sustainability issues with little practical implications. Here Mike is talking about the context of his school as well as wider societal and political contexts. He states “sustainability is the new black” suggesting that it is currently fashionable to be seen to be sustainable. I think Mike is reflecting a common sentiment in New Zealand society where organisations, businesses, institutions, and local and central government talk about sustainability, have sustainability policies, and include sustainability in their strategic plans. In my experience in a variety of educational institutions and other national organisations, this rhetoric often fails to deliver meaningful change towards a truly sustainable future. In other words there is a rhetoric-reality gap. This gap is also evident in our schools and education system. There are ample opportunities for learning experiences that are underpinned by and embrace sustainability through the New Zealand curriculum (Ministry of Education, 2007a). However, little priority seems to be given to these by the schools in this research project, outside of the efforts of teacher research-collaborators. This is supported by Mike's second comment above. Here he talks about how peoples' values related to sustainability may not be “quite as deep or as embedded as they might be” resulting in “lots of compromises”. This is a key issue when considering re-envisioning outdoor education through eco-justice and sustainability. At their heart, sustainability and eco-justice perspectives critique the very nature of our over-consuming, unsustainable ways of thinking and living in contemporary Aotearoa New Zealand. Yet it is virtually impossible to live a fully sustainable lifestyle in this societal context. This brings with it inevitable compromise and often accompanying tension, as I have written about elsewhere (Hill, 2009a). Mike includes himself in this compromise and talks further about this tension below.

I do the best I can as often as I can and live in the knowledge that I have actually not done it always as good as I would have liked, but I have to accept that, that tension and not flagellate myself on it. In terms of education, I mean I think, for me, it comes back to actually getting people to think deep enough and getting people to think about what they're doing and

why they're doing it. Because I think, when people do that, when people actually really seriously think about what they're doing, they start to see the implications of that. (Mike, Final Interview – Part 1, Dec 2009)

Here Mike articulates the tensions that exist for him personally as he tries his best to live sustainably yet fails to do so to the level that he would like. Mike makes some useful links here between deeper levels of thinking and tension. He suggests that people need to “seriously think about what they're doing” in order to understand the implications of their actions. It is perhaps this understanding of the extent to which peoples' thinking and actions are informed by sustainability perspectives that creates tension, as unsustainable aspects of their lifestyle are exposed. This tension that Mike is discussing above is one which I, as a sustainability advocate, educator, and researcher, also feel. Although as Mike articulates “I do the best I can as often as I can” it is very difficult to make sustainable decisions “as good as I would have liked”. Mike then relates this tension and deep thinking to education, suggesting that “actually getting people to think deep enough” about what they do and why they do it, is an important part of his pedagogy. This level of thinking and critical examination was evidenced in earlier discussion about the triple-bottom-line analysis of his tramping trips which he implemented with his students. Having explored some of the tensions and contradictions Mike experienced, as he participated in this research project, it is now time to discuss his perceptions of the research process.

Teacher Perceptions of the Research Process

Of particular interest in this thesis is the way that a participatory action research approach can help to facilitate change for teachers through providing quality professional learning and development opportunities. As discussed in Chapter 4 it was a key methodological consideration to try to ensure the research process was collaborative and reciprocal for teachers involved. The following captures some of Mike's thoughts on this.

I guess for me, a lot of the value in PD, is to do with interactions and if, if what's being presented is thought provoking, challenging, inspiring, umm, if there's a chance to sit down and talk things through and to tease it out, then it's actually far better. . . . just thinking about some of the PD I've done, I mean I did the PHEC refresher course this year and that was very hands-on and very interactive and very collaborative and that was really good. The same way as the work with your group umm, it's like being on, you know, on

this committee. Umm, lots of sharing ideas and bouncing ideas of other people, so it's seeing those different perspectives. It's really important.

(Mike, Final Interview – Part 1, Dec 2009)

I found it really stimulating. I've found the meetings quite, the level of thinking really deep and umm, not challenging, that's not the right word because that sort of suggests confrontation. I've found them very umm, yeah, stimulating and thought provoking, got me think about possibilities and about opportunities. (Mike, Final Interview – Part 1, Dec 2009)

In the comments above Mike speaks positively about the research process as a vehicle for professional development. He describes what valuable professional development looks like for him and suggests it needs to be “interactive”, “collaborative” “thought provoking”, “challenging”, and “inspiring”. Mike states how he has found the professional development workshops in this project to have a high level of intellectual stimulation and describes them as “thought provoking” and having a “really deep” level of thinking. He also compares the workshops favourably to other good quality professional development (PHEC – Pre-hospital Emergency Care) he had completed recently. Mike found his participation in this research group has provided “lots of sharing ideas and bouncing ideas of other people” which he believes are “really important”. It is evident throughout his chapter that the research approach employed in this project has stimulated Mike's thinking and helped him to consider possibilities and opportunities for sustainability in outdoor education. It has allowed him to develop deeper level understandings of sustainability and eco-justice and bring aspects of this understanding into his outdoor education programmes. These are important and useful outcomes from the research process. They must be treated with caution however. There is still much work to be done both in Mike's case and in more general terms as we seek transformative change to what Sterling (2001) calls *Sustainable Education*. Caution must also be exercised when making claims about the impact of this research process on teachers' pedagogy. As Timperley et.al. (2007) point out, substantive change in teachers' beliefs, thinking, and practices through professional learning and development is difficult. These issues will be further discussed in the conclusion. Now it is time to turn to the final case-study chapter in this thesis which considers the way Rachel integrated education for sustainability assessment tools into her year 12 outdoor education programme.

Chapter 11: Sustainability Assessment in Outdoor Education Programming

The previous four chapters have examined the ways that teacher research-collaborators have conceptualised and implemented sustainability and eco-justice into their outdoor education programmes. Those chapters have also discussed the way that the research process had impacted on teacher research-collaborators as a means of professional learning and development. This final chapter in this series explores the experiences of Rachel in this research process. First, it examines the impacts on Rachel's philosophies, understandings, and beliefs, and discusses how she conceptualises sustainability. Second, it explores how Rachel implemented sustainability teaching and learning activities and assessment in her year 12 outdoor education programme through an EFS achievement standard³³. Third, it considers Rachel's thoughts on future directions for her own programmes and outdoor education more broadly. Fourth, it discusses Rachel's perceptions of the research process as a form of professional learning and development. Initially, however, the chapter briefly explores Rachel's teaching context and the subjectivities she brought with her to the research process.

Context

Rachel is Head of Department (HOD) Outdoor Education at a large, urban, co-educational, state school, and teaches health and physical education alongside her outdoor education classes. Her HOD role involves the oversight of ten outdoor education classes, four or five staff, and significant resources and budget. In a series of comments spanning the duration of research process Rachel captured her department and school context below.

I think that we work pretty closely as a team. We know each other quite well and we are trying to evolve all the time and we do have quite a good reflective process and we have discussions about what's happening. The school is very supportive of outdoor ed. It's not like we're having to battle to run programmes or anything so that's a bonus. (Rachel, Initial Interview, December 2008)

³³ EFS achievement standard refers to a school assessment tool based on education for sustainability.

We very much have our programmes to the strengths of our teachers. . . . At the moment the staff are very much tramping based. (Rachel, Initial Interview, December 2008)

Our department at school is quite, you know, [Mark], he believes a lot in a sustainability lifestyle and what have you, so he's really passionate about it and it's great because they're happy to teach it and they want to teach it and they want to teach it whenever they can and challenge the kids, mmm. (Rachel, Final Interview, December 2009)

In the first comment above Rachel reveals a point of difference about her context in comparison to the teacher research-collaborators discussed in the previous four chapters. That is, rather than being the sole outdoor educator, Rachel leads a group of teachers who “work pretty closely as a team”. This provides opportunities for them to be reflective, to discuss issues, possibilities, and opportunities, and for their programmes to ‘evolve’ or develop. Rachel’s department also operates in a wider school context which is “very supportive of outdoor ed”. The second comment above reveals that the majority of the outdoor education programmes in Rachel’s school are focused on land-based journeys such as camping and tramping. This limits their ability to offer a wide range of outdoor pursuit activities but does provide space for more in-depth incorporation of sustainability issues into their programme, as discussed in a later section. In the third comment Rachel describes a department which is open to, and supportive of, sustainability thinking and practices, and who are keen to incorporate those concepts into their teaching and learning “whenever they can”. These comments reveal a context for Rachel which was conducive to her participation in this project in that it provided space for her to implement sustainability concepts and assessment into the school’s outdoor education programmes. She was supported by her school and department in the research process and had a number of staff to share ideas with. The specifics of how Rachel incorporated an education for sustainability achievement standard into their year 12 outdoor education programme is explored later in this chapter. Firstly it is important to consider Rachel’s subjectivity at the beginning of this project, as detailed below.

I think being the outdoor eders[sic], you are passionate about the planet because you go out and you appreciate it . . . I guess, we have that kind of compassion because we’re teaching children, students, teenagers, so we kind of have that natural draw card to want to look after things I suppose. (Rachel, Final Interview, December 2009)

Here Rachel talks about her identity as an “outdoor eder[sic]” in relation to the other members of her department. She states that she is passionate about the planet because she is out working in the outdoors. For Rachel this leads to a sense of appreciation, compassion, and wanting to care for the natural environment. Additionally Rachel suggests a sense of compassion and care for people because she is a teacher. These are all important aspects of Rachel’s subjectivity to consider. Prior to her involvement in this project she articulated a strong commitment to “the planet” with a “natural draw card to want to look after things”. She was therefore sympathetic to the aims of this project as might be expected given the self-selection process of gathering a research group outlined in chapter 4. However, despite holding this position of care and appreciation for the environment, Rachel still believed she had a lot to learn about sustainability and its application to outdoor education in particular, as discussed below.

I guess I sometimes feel that I'm pretty much a novice in this field, I'm learning as I'm going so I'm using others peoples' experience in the department, different experience and different beliefs and trying to come up with my own in a sense and that may change from year to year, yeah.

(Rachel, Initial Interview, December 2008)

In the above comment Rachel reveals her thoughts and perceptions of her own experience, knowledge, and skills in outdoor and sustainability education. She viewed herself as “pretty much a novice in this field” and recognised that she is still learning. For Rachel these comments reflect both a humility and willingness to learn which is important for teachers wanting to develop their own pedagogical practice and their teaching and learning programmes. She also talks about developing her own philosophical basis for her pedagogy as an outdoor educator through looking at different peoples’ experiences and beliefs and “coming up with her own”. Rachel states her position on this might “change from year to year” indicating that she is in a period where her thinking and practice is unsettled. Combined with her willingness to learn, this provides opportunity for Rachel to develop her understandings, philosophy, and pedagogy as she has done through this research project. Before considering how the research impacted on Rachel it is important to outline additional contributions to Rachel's professional learning and development during the research period, as described below.

It's almost like I need a wee diagram of circles because this year, you know, I've had your research which I've been involved with. I've had the achievement standard that I've been working on plus working with Faye Wilson-Hill, you know. It's all interconnected and worked really well, so it

couldn't have worked in better, to be honest. (Rachel, Final Interview, December 2009)

During 2009 Rachel was involved in the workshops and other processes which were part of this research project. This included an action plan which incorporated an education for sustainability achievement standard into her year 12 outdoor education programme. She also took part in an education for sustainability professional development course run by Faye Wilson-Hill and other advisers at University of Canterbury Education Plus³⁴. As Rachel comments, she found all of these influences to be interconnected and she found that this “worked really well” for her. It is important to acknowledge here that there were multiple influences on Rachel's professional learning and development during the period of this research project. Knowledge is seldom developed in isolation; therefore, this recognition of multiplicity in Rachel's professional learning and development is important. This will be discussed more fully in the concluding chapter of this thesis. This chapter now turns to how the research process impacted on Rachel's philosophy and understandings of sustainability and outdoor education.

Impacting on Philosophies and Understandings

This section explores how the research process impacted on Rachel's philosophy, values, and understandings, particularly as they relate to sustainability and eco-justice in outdoor education. Throughout the project Rachel's thinking about these concepts was stimulated, challenged, and developed, as revealed below.

It got me thinking about my current philosophies and reading more material on it [sustainability]. I was drawn to reading articles on it and listening / watching for related topics. (Rachel, Final Workshop Reflection, December 2009)

I am getting a better understanding of it [sustainability] and taking a greater interest. (Rachel, Final Workshop Reflection, December 2009)

I have questioned more, both my own values and beliefs, and those commonly held by others. (Rachel, Final Workshop Reflection, December 2009)

³⁴ University of Canterbury Education Plus is the ministry of education funded provider of professional learning and development support to schools in the wider Canterbury/West Coast/Upper South Island region.

Taking into account Rachel's position at the beginning of the project, where she described herself as “pretty much a novice in this field”, her comments above reveal a development in her thinking and understanding. She states that she has done a lot more reading and taken a greater interest in sustainability issues. This has led to professional learning and development in two interrelated ways. First, Rachel has examined her educational philosophy which has involved questioning her beliefs and values. This is an important point. As I have discussed elsewhere (Hill, 2010b), teachers’ beliefs often have a significant influence on their pedagogical practice. The ways that Rachel's changing beliefs, values and philosophy have impacted on her practice are discussed in a subsequent section. Links can be drawn here to previous chapters where Sophie (Chapter 7) and Josh (Chapter 8) spent considerable time and energy reflecting on and developing their personal and professional philosophical positions relating to sustainability and outdoor education. Second, Rachel describes a development in her understanding of sustainability. As discussed in the previous chapter, Timperley et. al. (2007) suggest that increasing teacher understanding is a key component of quality teacher professional learning and development.

The two points above are strongly interrelated and have worked in a dialectical fashion to influence Rachel's professional learning and development. As Rachel critically examined and developed her philosophy, beliefs, and values, there was an accompanying development in understandings. It also appeared that as her understandings about sustainability issues grew Rachel questioned not only her own beliefs and values, but also those of others. For Rachel, this reflective and cognitive process worked to clarify philosophical and belief positions and increase understandings related to sustainability and outdoor education. This process was, however, not unproblematic for Rachel resulting in inconsistencies and tensions, as revealed below.

If I wasn't doing the achievement standard this year and being involved with your research, I don't think I would have learnt as much myself in challenging my values and beliefs and what have you, yeah. But again, it's like the students. You know, they believe in buying New Zealand made clothing or whatever but it's that whole acting (laughs) which is the challenge, which is what I'm still working through. (Rachel, Final Interview, December 2009)

It's that point of you being passionate and having a strong belief in it and actually living, you know, that acting on it. (Rachel, Final Interview, December 2009)

Probably for me, my beliefs and values are evolving in the whole sustainability idea but I wouldn't be living by it as I would like. . . . So it's me thinking through the processes but then the manageability of it, I suppose.
(Rachel, Final Interview, December 2009)

To actually have that belief that I need to look after the planet but you know, sometimes I'm just as guilty at falling into the materialistic world that we live in, mmm. (Rachel, Final Interview, December 2009)

In the comments above, Rachel highlights how the research process has been useful for her personal and professional learning and development. She also talks about the tensions and challenges she has encountered in translating the shifts in her understandings, philosophy, and values into her actions. She suggests she is “still working through” and “thinking through the process” of how sustainability and eco-justice principles influence and inform her actions. She also states that she is “guilty of falling into the materialistic world that we live in”, indicating that some of her actions and decisions are driven by materialistic society. In doing so Rachel appears to place materialistic society in juxtaposition with sustainability principles associated with “looking after the planet”. The challenge of how people can live sustainably in contemporary New Zealand society – influenced so strongly by deep cultural assumptions such as consumerism, individualism, and anthropocentrism (Bowers, 2001c, 2001d) – is one which is difficult and enduring. Rachel is not alone in this challenge. Previous chapters have also highlighted tensions for teacher research-collaborators where inconsistencies or gaps have been revealed between what they would like to do, based on philosophical and value positions, and what they actually do. As a sustainability and eco-justice educator and researcher, I too experience these same challenges and tensions as I have discussed elsewhere (Hill, 2009a). This is an important issue and one which will be discussed in more detail in the conclusion. Aside from the tensions, the development in Rachel's understandings and beliefs related to sustainability also had positive implications for her. An example of this is discussed below.

I find that I'm, you know, reading the newspaper and, ooh, there's an article on wind farms or something and I'm chopping it out to stick it into my newspaper clippings umm, or reading something in a magazine or buying a Good magazine³⁵ now because it's got interesting stuff in it umm, and

³⁵ *Good* magazine is published in New Zealand by Tangible Media and is for forward-thinking New Zealanders who want to live more sustainable lives with less impact on the environment.

before, I just would have thought that was for fluffy, green, hippy people (laughs). (Rachel, Final Interview, December 2009)

Rachel makes a couple of interesting points here. First, she talks about how her awareness of sustainability issues in print media has increased and she now collects relevant articles to add to her newspaper clipping archive. Rachel has talked with me about how she uses these types of current events and articles in the teaching of the education for sustainability unit in her year 12 outdoor education course. Second, Rachel reveals an important attitude shift for her. She talks about how in the past she may have viewed sustainability based media or ideas as being “for fluffy, green, hippy people” but now they are of interest and concern to Rachel. This is an interesting point that reveals how ‘green’ or sustainability ideas can be caricatured in ways which marginalise them as the ‘other’ or ‘different’. For Rachel overcoming these unhelpful distinctions has contributed to her increased understanding and adoption of sustainability principles in her personal and professional life. Furthermore, this has influenced Rachel's conceptualisation of sustainability, as discussed below.

Conceptualising Sustainability

As Rachel's understandings, philosophy, and beliefs were challenged in this project, the way she conceptualised sustainability also developed. Insight into Rachel's conceptualisation of sustainability is revealed below.

For me, I'm hoping to be on this planet for a hundred years or whatever, and I've got to realise that there's billions of other people also on this planet in the time that I'm alive and we can have quite an influence on the small amount of resources that we're all vying for to survive. But we've also got a responsibility to think, well, my children and my children's children also want to come on to this planet and have an awesome life and enjoy what we've got. So I might just be this one person in the six billion or whatever but umm, you know, I've got to look after this place for future generations, yeah, and I think that is, the world is slowly waking up to that. (Rachel, Final Interview, December 2009)

Here Rachel reveals a number of points about the way she conceptualises sustainability. First, it appears that she relates strongly to the environmental aspects of sustainability. She talks about the “planet” and “looking after this place”. However, Rachel does divulge aspects of

socio/cultural sustainability in her understanding through talking about resources, a large global population, and people vying for these resources. Although she is largely silent on social justice issues such as the unequal distribution of resources, growing inequality between rich and poor, and world poverty issues, Rachel's implementation of a sustainability unit which critically examined outdoor clothing and equipment production, distribution, and consumption is an example of her attempts to include eco-justice concepts. This is a complex issue which is reflected in wider outdoor education discourses. In my experience, few outdoor education programmes seriously address social justice and inequality issues. As has been discussed in the previous four chapters, the majority of teacher research-collaborators in this project have viewed sustainability primarily in terms of environmental aspects. This may be because of the way some outdoor educators have a strong affinity for the environment, which may make it easier for them to emphasise aspects of environmental care. Whilst the environment is the underpinning aspect of a sustainable society, it is important that socio-cultural aspects of sustainability and eco-justice are present in teachers' understandings, philosophy, and pedagogy. This highlights an area that requires greater investigation as to how these understandings can inform outdoor educators' practice.

Second, Rachel reveals a future-focused understanding of sustainability through her desire to look after this place "for future generations". This is a key aspect of sustainability theories and importantly is one of the underlying principles of the New Zealand curriculum (Ministry of Education, 2007a). Being more future-focused is a key part of re-envisioning outdoor education through sustainability and eco-justice perspectives. A further aspect of this process involves the concept of connection to place which Rachel talks about below.

The whole idea with, you know, being bonded with a place, you know, your people and your place, I think is really crucial. (Rachel, Final Interview, December 2009)

In discussing sustainability Rachel reveals here that a "really crucial" aspect of this is "being bonded with . . . your people and your place". This statement supports much of what was discussed in Chapter 9, although Rachel provides no specifics of what this "bonding" might look like, how it takes place in her outdoor education programmes, or how it might impact on students ability to think and act sustainably. Her comment, however, still has relevance to the way that outdoor educators might conceptualise sustainability and apply it into the programmes and learning experiences. As outlined in the context section of this chapter, Rachel described how as an "outdoor eder" she was "passionate about the planet because you go out and you

appreciate it". It is understandable then, how Rachel articulates this bonding with place as being crucial to developing environmental aspects of sustainability in outdoor education. These concepts have been discussed in previous chapters and will be synthesised in the concluding chapter of this thesis.

Examining how educators conceptualise concepts such as sustainability is important as it can provide insight into how they might include those concepts in their learning programmes and experiences. The next section looks at how Rachel incorporated sustainability concepts into her outdoor education programme through introducing a new unit looking critically at the production and distribution of outdoor education clothing and equipment.

Buying New Zealand Made

Rachel's action plan in this research project was to introduce a new teaching and learning unit into her year 12 outdoor education course titled "Buying New Zealand made vs made overseas". This unit was based on the learning objectives of, and assessed by, the education for sustainability achievement standard 2.4 (EFS AS 2.4) "Describe values and associated behaviours in relation to a sustainable future". Rachel applied this achievement standard through focusing on values and behaviours associated with purchasing outdoor clothing and equipment. In particular she was interested in examining the sustainability of clothing and equipment manufactured in New Zealand versus overseas manufacture. Below Rachel describes some of the reasons for taking this approach.

I want to get students to identify something that they can make a difference with (Rachel, Action Plan, Workshop 3, August 2009)

Fundamental underlying [sustainability] values are important – society needs to get educated to make changes. Our subject is a great forum to do this in.

(Rachel, Action Plan, Workshop 3, August 2009)

Here Rachel provides some reasons for integrating this new unit into her programme. First, she sees it as an opportunity where students can both gain knowledge and "make a difference". Exactly what this difference might be or how it is translated into action will be discussed later. Second, Rachel sees sustainability values as important which may have influenced her decision to base her unit on EFS AS 2.4 which focuses on values and associated behaviours. Of interest here is the way in which Rachel described challenges and changes to her own beliefs and values related to sustainability in a previous section. This congruence between her personal learning

and professional incorporation of a unit focusing on values may be more than coincidental given the relationship between teachers' beliefs and their practice (Hill, 2010b). Third, Rachel suggests outdoor education is a "great forum" to get students to think about values and behaviours related to sustainability. This is an important point which I will pick up on in a subsequent section which explores Rachel's thoughts on future directions for outdoor education.

In developing the teaching and learning strategies for this unit, Rachel put together a series of classroom based sessions which looked at a variety of themes and content related to outdoor clothing and equipment, and sustainable values and behaviours. One of these activities is described below.

I had this great (unit)... activity, you know, with an apple and you've got to slice it up to show the amount of space on the Earth that, how many billion people are vying for to live on umm, and how the kids, suddenly the light bulbs were going on and they were beginning to ask questions and debate it, you know. (Rachel, Final Interview, December 2009)

Looking at it, you know, it's got the kids thinking and you could hear them umm, talking about it, you know, just with their peers. Obviously some issues they quite, got under their skin or they could relate to. (Rachel, Final Interview, December 2009)

In the first comment above Rachel talks briefly about a learning activity which analysed natural resource distribution at a global level. This and many other learning activities, Rachel acquired through her involvement in the University of Canterbury Education Plus professional development course on education for sustainability. She speaks of the way that this activity impacted on her students suggesting that students were increasing their understanding of sustainability issues such as resource distribution and beginning to ask further questions and debate these issues. In the second comment Rachel speaks about the learning activities more broadly, suggesting they have got students talking about sustainability issues in their own time "just with their peers". These discussions have led Rachel to conclude that some of the sustainability issues covered in class "got under their skin" and were of relevance to her students. This is an important point. Creating a teaching and learning environment where students engage meaningfully with sustainability issues is an important part of any educating for a sustainable future. It appears that Rachel has developed this type of pedagogical space with

her students through the incorporation of this unit. Rachel spoke further about the impacts of this teaching unit on her students, which is captured in the dialogue below.

Allen: So it's had some positive impacts on the students?

Rachel: Yeah

Allen: What are some examples of these kind of things?

Rachel: So during the Casey-Binser tramp I had a boy come up to me and say 'Miss I bought a New Zealand made raincoat'. He had researched it, sourced it and done the bizzo on it which was brilliant, yeah. Standing around, you know, the first night at the old Bivvy there, and we're standing staring at the stars having a big ethical discussion, you know probably about 10 of us talking about sustainable practices. (Rachel, Final Interview, December 2009)

Allen: So the student who bought the New Zealand made raincoat, do you think he kind of understood and grasped some of the, the deeper level processes and information and issues that you were trying to get through with your programme?

Rachel: Umm, I think he could tell me that the different between buying a New Zealand made one and an overseas made one and who is affected by that and how that kind of snowballs, you know, if you buy a New Zealand one, you're supporting local people and local businesses and the money's going to, obviously, support them and come back in the community and they're going to have jobs and less travel miles. It hasn't come from right across the world and our practices of paying employees are more ethical and such and such. So they could tell you at the kind of achieved level but umm, you know, at the end of the day, if they're getting some of those concepts, then hopefully, with time, they'll get a few more, yeah.

The dialogue above reveals several interesting points. First, Rachel suggests that the "Buy New Zealand Made" unit has had a positive impact on students. She provides an example by describing how one student had purchased a New Zealand made raincoat in an independent manner and then proudly showed this off to his teacher. This provides some insight into how the classroom discussions had impacted on this student's actions. Although this may not have been the case for all students, it is an important point as it draws links between students' cognitive learning and their behaviour or actions. A key goal of education for sustainability is to build

action competence in people through their learning experiences. As discussed in previous chapters if re-envisioned outdoor education pedagogy is to contribute to educating for a sustainable future then the development of action competence in both teachers and students is an important part of this.

Second, Rachel talks about a star-lit “ethical discussion . . . about sustainable practices” with her students during one of their tramping trips. This is an example of the many teachable moments that present themselves during outdoor education experiences. Here it appears much of the prior classroom discussion about sustainable practices was moving to outdoor settings although Rachel provides few details of the discussion itself. What this does reveal is how the time, place, and nature of outdoor learning experiences, in this case tramping, often present opportunities to both discuss and implement sustainable practices. This notion has been explored in a variety of ways in the previous four chapters, but also raises a key issue which has been discussed previously. How might learning about sustainable understandings and practices in outdoor activities connect with and inform students’ practices and decisions in everyday urban situations? This discussion is continued in the concluding chapter.

Third, Rachel is asked about the extent to which her students understand deeper level processes and issues related to sustainability and outdoor activities. In reply she talks about students having an “achieved level³⁶” understanding where they could articulate knowledge of who is affected by global production processes, how local communities and businesses benefit from purchasing locally and how “travel miles” of products increases their environmental impact. Given “achieved level” is equivalent only to an adequate level of understanding, Rachel's comment reveals that students may only be engaging with sustainability issues at a superficial level. This is particularly the case in relation the ethics of outdoor clothing and equipment manufacture and distribution. This is hardly surprising given the contested terrain of debates surrounding sustainability and justice issues, globalised production and economic processes, and local communities. From an eco-justice and sustainability perspective, as articulated in Chapter 2, localised self-sustaining communities which can live within the natural limits of their resources, providing equal opportunities for all in ecologically sound ways are a key part of a sustainable and just society. This perspective calls into question globalised market

³⁶ Here Rachel is referring to New Zealand’s secondary school assessment system NCEA, in which students can gain four ‘grades’ in relation to a particular standard. These are: not-achieved, achieved, merit, and excellence which roughly correspond to D, C, B, and A grades respectively, in a percentile based system.

economies which reinforce the efforts of multinational corporations to constantly seek out the cheapest and least regulated labour markets for the production of consumer goods. The work that Rachel has done with her students in attempting to critically examine globalised production and distribution of outdoor clothing and equipment is an example of the type of learning experiences which might be informed by an eco-justice and sustainability theoretical framework.

As Rachel was leading an outdoor education department with a number of staff, the implementation of this “Buying New Zealand Made” unit into their Year 12 outdoor education course had implications for other staff and for Rachel. When asked if she had put a lot of time and effort into developing this new unit Rachel responded:

Ohh, yeah, definitely but I kind of had to because it wasn't just me teaching it. I had two other staff teaching it, so it was a bit tough for me to just say to them, here's a unit, go and deliver what you want. You know, I had it prepared for them because I guess I'd had the PD with the activities and whatever and, and they really appreciated that, yeah. (Rachel, Final Interview, December 2009)

Here Rachel reveals how the work she put into this unit through this research project, and the professional development she received from the UC Ed Plus education for sustainability course, enabled her to provide quality teaching and learning resources to her colleagues. She was therefore making a contribution not only to students learning but also to other staff members' professional learning and development. Since the research phases of this project have ended, Rachel has also published some of her ideas from her work in this project in an article in a New Zealand outdoor education publication and presented at a professional development workshop. These wider contributions that Rachel is making, whilst not influenced solely by this project, reflect the exciting developments that can occur through a participatory action research approach. Rachel talks further about how her involvement in this project has impacted on other staff in her department.

We've just had some awesome discussions about what students have talked about . . . and they [staff] were finding some really awesome teaching moments that they were having, yeah. So they're passionate about it [sustainability] and they're seeing that the students are starting to get passionate about it, yeah. I mean it could be just a casual walk to the

staffroom, down the hallway, past each other. You know, 'Ohh had a great class today'. (Rachel, Final Interview, December 2009)

Here Rachel talks about her interactions with the other two staff involved in teaching the Year 12 outdoor education course. She states that they have had some “awesome” discussions about the teaching and learning that was taking place in their classes during the “Buying New Zealand Made” unit. Rachel suggests that teachable moments have presented themselves for her staff and that they are enjoying teaching the sustainability unit. She also indicates that her staff have reported that students are “starting to get passionate about it [sustainability]”. It is pleasing to see that the work Rachel has put into developing and implementing this unit has been well received by both students and other teachers. This is more the case when considering how Rachel's unit might fit with dominant conceptions of outdoor education in Aotearoa New Zealand based on personal and social development through outdoor pursuit activities, as discussed in Chapter 3. It is reasonable to suggest that her “Buying New Zealand Made” unit does not fit easily within those dominant conceptions of outdoor education, therefore presenting potential conflict and dissonance for both students and staff involved in this programme. It is of some significance that this unit was so positively received by students and teachers in Rachel's school. The potential conflicts between outdoor pursuit oriented programming and education for sustainability learning outcomes are discussed further in the next section which explores Rachel's thoughts on future directions for outdoor education in Aotearoa New Zealand.

Future Directions for Outdoor Education

In discussing Rachel's thoughts on future directions for outdoor education she provided insight in two ways. First, she talked about where she sees the vision, content and pedagogy of the outdoor education programmes within her school moving in the near future. Second, she provides her perspective on outdoor education more broadly, in particular the relationship between traditional outdoor pursuit activities and the potential for sustainability focused learning experiences and outcomes. Rachel's thoughts are captured below.

I'm stoked that we've got this achievement standard into our programme at year 12 because we've got it in now and we can work on it again next year and then process through trying to have it as an underlying theme or strand that we can have running through all our programmes. (Rachel, Final Interview, December 2009)

I'd like to bring some of it [sustainability] into year 10 in a more simplified version. (Rachel, Final Interview, December 2009)

In the comments above Rachel expresses that she is pleased to have an education for sustainability teaching unit and achievement standard in her year 12 programme because of the implications this might have for other outdoor education programmes in her school. She talks about both refining the "Buying New Zealand Made" in the year 12 course and also developing an underlying sustainability theme throughout all her programmes. This is further evidenced through the second comment where Rachel expressed a desire to have sustainability in her year 10 outdoor education programme "in a more simplified version". These are important points. What Rachel is suggesting here is more than just a mechanical change to one of her programmes through introducing a new achievement standard. She is describing her desire for a more fundamental shift towards sustainability focused learning experiences and outcomes across all her outdoor education programmes. Although this might not involve radical change it is possible to see this as some form of re-envisionment. Sterling (2001) suggest that in order to move towards "sustainable education" there requires a focus on transformative change. For Rachel, perhaps this process has begun. She talks more specifically below about further changes she would like to make.

I think, you know, in the future, it would be great if we actually have an Outdoor Ed programme running with more sustainable options. You know, we try and buy the New Zealand made products etc, but also looking at, say, the kids with their food when they're getting their camp food or whatever. Trying to get them buying it locally or minimising what they're actually – that pre-cycle kind of idea. So taking it the next notch, mmm. Not only trying to get them with the right calories and foods but where have you actually sourced that food from. But again, it's timely, it's costly, you know. You know, it takes time to research it or to actually go and find it or, yeah, chances are, it's more expensive. (Rachel, Final Interview, December 2009)

Here Rachel describes some ways she would like to further introduce sustainable practices into her programmes, particularly with relation to food. As discussed in Chapter 7 with Sophie, food production, distribution, and consumption process can provide great opportunities for examining sustainability issues. Rachel describes how she could get students to consider where their food comes from, how it might be produced, and what waste might be associated with those processes through "pre-cycling". These are useful sustainability focused issues to

incorporate into her programmes, especially as many outdoor learning experiences present opportunities to learn about food in both a cognitive and experiential manner. Taking this approach is not unproblematic, however, as Rachel explains. She suggests that both time and money are constraints for both teachers and students. Often locally grown and organic foods are more expensive. As Rachel suggests it also takes time to find out where you can purchase different food options. In Aotearoa New Zealand society, it has become normalised to purchase the majority of food products from a supermarket. Thinking and acting outside this norm, such as purchasing from a farmers market or local producer, can therefore be difficult. Rachel was also asked to consider future directions for outdoor education more broadly as revealed in the dialogue below.

Allen: What do you see for the future of outdoor ed? Is sustainability something that just fits with outdoor ed or is it something that sits wider? Where do you see it going?

Rachel: Umm, it depends on your aims of your programme in the sense that if you're just a real pursuits based kind of programme and maybe you might touch on it and you might try and do some sustainable practices in your programme but the bonus of our programme [] is, you know, we've got achievement unit standards that we offer, there's a real opportunity there to nail it and have a good go at looking at it. I think it's totally suited for Outdoor Education, you know, because we're trying to teach people to get out there and get involved in the outdoors but also respect it and let others after you, go out and enjoy it too, yeah

Allen: Do you think being less pursuit focused is helpful in a sustainable approach to Outdoor Ed?

Rachel: Umm, yeah, I think it does, in a sense because we're not just kind of McOutdoors (laugh), McOutdoor Education, you know, like McDonald's. We're not just, yeah, hey, let's go rock climbing, or yeah, tomorrow we're off mountain biking and then we're off to go kayaking and then we're going to do this and that. You know, great, you'll have some fun and you'll have a wicked time but you sometimes have to slow down and actually say, hey, what are we doing here?

(Final Interview, December 2009)

There are several points raised here by Rachel that warrant discussion. First, Rachel suggests that programmes heavily focused on outdoor pursuit activities may only be able to “touch on” sustainability issues, thinking, and practices. She goes on to point out that her year 12 programme, which is less pursuit activity oriented as discussed in the context section of this chapter, is able to have a more in-depth focus on sustainability through incorporating an education for sustainability achievement standard. This is an interesting point. In my experience outdoor education programmes that focus heavily on outdoor pursuit activities such as rock climbing and kayaking often have to devote significant time to developing skills to competently participate in those activities. This can be largely due to the levels of risk involved with the types of activity and subsequent safety procedures. Whilst there is nothing wrong with skill development per se, as Rachel suggests, this may limit the time available for exploring sustainability more fully in a particular programme. Brown and Fraser (2009) explore these issues more fully and suggest that risk as a central pillar of outdoor education pedagogy can diminish other learning possibilities for students.

The second point is how Rachel viewed outdoor education as a highly suitable context for exploring sustainability issues, thinking, and practices. She links this to the experiential nature of outdoor learning experiences which “teach people to get out there and get involved in the outdoors but also respect it”. This point supports the discussion in Chapter 9 which looked at how the experiential nature of making emotional connections to place might engender a greater sense of care. Perhaps these experiential learning opportunities that outdoor education offers are a unique contribution to the development of education for sustainability in Aotearoa New Zealand schools. This point will be further discussed in the conclusion chapter.

The third point here is the way that Rachel perceived outdoor pursuit activities to be strongly associated with ‘doing’ and ‘having fun’ which might obscure other learning outcomes. Rachel stated “you sometimes have to slow down and actually say, hey, what are we doing here?”. What I believe Rachel is suggesting here is slowing down to consider many questions associated with outdoor activities. Examples of these types of questions could include: Why this activity? What are the stated and potential learning outcomes associated with this activity? How does this activity interact with places / environments / people? How are sustainable practices associated with this activity? The pedagogical space for these and many more potential questions can be compromised by the hustle and bustle of outdoor education programmes packed with adventure pursuit activities. The ideas presented here by Rachel are supported by Payne and Wattchow’s (2008) concept of slow pedagogy, which they characterised as “a multi-

layered experience of time(s) ‘presented’ in a certain socio-environmental location and locale, or place” (p. 35). Slow pedagogy, according to Payne and Wattchow (2008) is cognisant of the time and place possibilities in outdoor education that can become subjugated by the development of hard skill competences often associated with adventure pursuit activities. In the context of re-envisioning outdoor education in Aotearoa New Zealand, slow pedagogy presents real alternatives to what Rachel describes as “McOutdoor Education” where a ‘busy, happy, fun’ pedagogy based on a smorgasbord of rostered activities might be prevalent. These insights from Rachel are important points when considering future directions for outdoor education. Having explored these insights it is useful to now turn to her perceptions of the research process.

Teacher Perceptions of the Research Process

The following comments by Rachel capture many of her thoughts regarding the professional learning and development aspect of this action research project. As with the previous four chapters, Rachel speaks positively of the research process.

I’ve actually really enjoyed the process . . . the fact that I’ve heard what other people have had to say, has got me thinking about what they’re thinking and whether I agree with what they’re saying or not or affirmed the thinking from my point. I think we’ve actually probably got more out of it than what we would have expected. (Rachel, Final Interview, December 2009)

I feel like we’ve got a team there that are coming together and wanting to do all the sustainability stuff in whatever aspect of their teaching . . . that’s been really positive, yeah, and it’s been great having people coming in and talking to us and you know, not just us sitting there, chewing the fat or whatever, yeah. It’s been really good. (Rachel, Final Interview, December 2009)

In the two comments above Rachel states how she found the research process to be enjoyable and “really positive”. She reveals two reasons for this. First, she found the process stimulated her thinking through being involved with a group of teachers who shared ideas with each and entered into dialogue surrounding sustainability issues in outdoor education. This aspect for Rachel was discussed further in a previous section of this chapter. Second, Rachel found that having outside experts coming in to the research workshops to talk with the teacher research-collaborators to be beneficial. These two points are complementary. Expert speakers

often provide stimulating, thought provoking material which lay foundations for new understandings or challenge existing understandings. The opportunity afforded by the research process to talk with other teacher research-collaborators then helps to process these understandings and integrate them into existing frameworks of knowledge. These processes are consistent with effective professional learning and development outlined by Timperley et.al. (2007). Rachel also comments above about having a “team there that are coming together”. This is an important point. When involved in innovative practice which challenges the status quo, as Rachel has done with her “Buying New Zealand Made” unit, it is often easy to feel isolated. The cooperative and collaborative nature of this research project provided teacher research-collaborators with the feeling that they were part of something bigger than just themselves. This level of support is important in bringing about lasting change in teachers’ practice. Rachel further explains how the research process was useful for her by comparing it to other forms of professional development she had experienced in the past.

I’ve totally got something out of it. I mean all the PD that we do at school or whatever . . . you sit there and you go, ohh, I think I’ve taken something out of that, but you may never use it again or have the opportunity to. Here, because we’re regularly meeting, it’s an ongoing process and you’re actually, each time, getting something out of it and you feel like you’re maybe given something to help you. (Rachel, Final Interview, December 2009)

So often, you go to PD, whether it’s a day at T Coll or whatever and you sit there and someone presents all these ideas . . . It’s like you’re being told about something but in this way it, we felt like our knowledge is being heard and listened to and discussed and, yeah, and also that next process of, okay, we’ve got this knowledge and interest. Where are we going to go to from here? (Rachel, Final Interview, December 2009)

In the above comments, Rachel compares her experiences during the professional development phases of this research project with other professional development opportunities she has had either through her school or “at T-Coll” (College of Education). She reveals four points that have made this process useful for her. First, she found the “regular meeting” and “on-going process” of the research workshops to be useful. Second, she found that she was getting something useful to help her in developing her pedagogy and programmes each time there was a research workshop. Third, she found the opportunities to be heard and to discuss knowledge relating to sustainability and outdoor education valuable. Fourth, she found the opportunity to put

knowledge and learning from the workshops into practice in her pedagogy and programme through the action planning phases of the project useful. All of these four points are consistent with effective teacher professional learning and development as outlined by Timperley et.al. (2007). They reflect positively on the research approach employed in this project. Underpinned by the dual aims of critical qualitative research, those of critique and change, this project has contributed to bringing about change for Rachel and her outdoor education programmes.

This is the last of a series of five chapters which have explored the impacts of this research project on five teacher research-collaborators and discussed the various ways that they have conceptualised and implemented sustainability and eco-justice perspectives into their various outdoor education programmes. Previously, Chapters 5 and 6 discussed teacher research-collaborators perspectives at the beginning of the research process with particular attention given to the influence of deep cultural assumptions, potential opportunities, and constraints to eco-justice and sustainability approaches in outdoor education. A number of common themes have emerged through these seven chapters, such as: connection to place, experiential approaches, tensions and contradictions, and action research as professional learning and development. There have also been a number of differences or unique perspectives discussed, which acknowledge the contextual, and moderate-postmodern nature of this research. The conclusion chapter will weave these themes with the foundational literature in Chapters 2, 3, and 4 to offer some possibilities for a re-envisioned outdoor education pedagogy suitable to meet the changing world of 21st century Aotearoa New Zealand.

Chapter 12: Conclusion – Towards Sustainable Outdoor Education Pedagogies

Introduction

This thesis has attempted to challenge dominant conceptions and re-envision outdoor education in Aotearoa New Zealand through a sustainability and eco-justice perspective. The eleven chapters presented thus far, have endeavoured to build a case for the incorporation of sustainability principles and issues into outdoor education programmes and pedagogies. Chapters 1 to 4 introduced the thesis and synthesised literature pertaining to theoretical frameworks, educational contexts, and methodology. Chapters 5 and 6 summarised and discussed teacher research-collaborators perceptions of outdoor education, sustainability, and cultural assumptions at the beginning of the research process. Chapters 7 to 11 have presented findings and discussion relevant to the experiences of five teachers in this research project. These chapters attempted to capture how the action research process impacted on teachers' philosophies, values, understandings, resource use, programming, and pedagogy. In addition, teachers' thoughts on the research process as a means of professional learning and development were discussed along with their conceptualisation of sustainability. Having covered significant ground in these eleven chapters, it is now important to draw together the many threads that have been revealed throughout these discussions. It is also timely to re-focus on the aims of this project and consider the research questions which guided the inquiry.

1. How do deep cultural assumptions influence and interact with conceptions of outdoor education in the New Zealand secondary school context?
2. How can outdoor education be re-envisioned through eco-justice and sustainability principles to more effectively educate towards a sustainable future?
3. What role can collaborative action research play in facilitating professional learning and development for teachers which involves thinking and practice based on sustainability principles?

Rather than addressing each of these questions distinctly and independently, this concluding chapter will focus on a series of themes which address the research aims and questions of this project in overlapping ways. Through these themes, conclusions will be presented regarding implications for outdoor education theory, practice, and future research. Each theme is captured in one of the following sections. The first, argues that outdoor education

pedagogy in Aotearoa New Zealand is contested and facing increasing scrutiny. This section also contends that deep cultural assumptions influence and interact with outdoor education pedagogy in Aotearoa New Zealand. The second section presents a model for stimulating and facilitating change in outdoor education pedagogy towards more sustainable approaches. This model highlights that for teachers in this research, change occurred at three levels: First, in philosophy, values, and understandings, which underpin teaching practices and programmes; second, in resource use, infrastructure, and programming; and third, in teaching and learning strategies.

The third section discusses conceptualisation of eco-justice and sustainability within the context of outdoor education. In particular, it examines conceptual disparities between socio-cultural and environmental aspects of sustainability, apparent silences on social justice issues, and factors that might enable or constrain sustainability foci in outdoor education. The fourth section reflects on the methodological and theoretical implications of this research. Specifically, it discusses the usefulness of bricolage as an overarching methodological framework and considers the successes and problems with a research approach which attempted to be both critical and collaboratively change-focused. This section also explores the usefulness of the eco-justice and sustainability theoretical framework used in this thesis and outlines potential knowledge contributions that greater synthesis of multiple justice and sustainability theories might provide. The fifth and final section considers future directions for outdoor education and sustainability including implications for theory and practice, and future research.

Theme A: Contested Notions of Outdoor Education in Aotearoa New Zealand

In light of the findings of this thesis, I argue in this section that outdoor education is a contested concept in Aotearoa New Zealand. From the literature and the findings presented in this thesis, I believe it is clear that outdoor education thinking and practice is currently undergoing increased scrutiny and re-evaluation, both internationally and in Aotearoa New Zealand. From the outset of this research I have resisted providing a simplified or reductionist definition of outdoor education. As discussed in Chapter 3, outdoor education is a contested concept which is neither homogenous, nor fixed in nature and is often beset by semantic confusion (Boyes, 2000; Brown, 2006; Cosgriff, 2008; Nicol, 2002a). Historical conceptions of outdoor education in Aotearoa New Zealand have involved a variety of approaches from cross-curricular camping, environmental studies, and adventure activities. In the last two decades outdoor education, particularly in the secondary school context, has become synonymous with

adventure pursuit activities as thinking and practice was more closely aligned with the Health and Physical Education national curriculum (Lynch, 2003, 2006). This trend is further evidenced through the programmes of teachers in this research. In almost all cases, their senior school (years 12 and 13) outdoor education programmes revolved around ‘traditional’ adventure activities such as tramping, rock climbing, some kayaking and some snow sports. Through this research and many conversations with other educators throughout Aotearoa New Zealand, I believe that these activities tend to define secondary school outdoor education programmes.

However it would be unfair to label the teachers in this research as traditional outdoor education pedagogues. Through their efforts to re-think outdoor education pedagogy, they developed a variety of alternative approaches; some of which included reframing activities or emphasising different outcomes within existing activities, some involved the inclusion of new material and content into their programmes. In all cases, these efforts were made with the intent to better educate for a sustainable future. The work of teachers in this research is further contributing to the contestation of outdoor education pedagogy. I believe a trend for change is emerging where the status quo of adventure pursuit activities with associated personal and social development goals is being questioned. A glance at recent publications such as the *New Zealand Journal of Outdoor Education* and *Ki Waho: Into the Outdoors*³⁷ shows that a large number of articles are presenting alternative ideas, theories, and practices to the New Zealand outdoor education community. Furthermore many of the assumptions which have long been taken-for-granted in New Zealand outdoor education pedagogy are now being challenged.

Exposing assumptions in outdoor education

One aspect of this thesis has focused on exploring how deep cultural assumptions influence and interact with conceptions of outdoor education in the New Zealand secondary school context. This section summarises the findings and discussion on cultural assumptions presented in Chapter 5. It also acknowledges that significant other works which critique assumptions in outdoor education have recently been published. In many ways these articles complement the findings of this thesis and provide a broader context which recognises that many assumptions in outdoor education pedagogy are always under critical scrutiny.

The work of Brown (2008a; 2009; 2010; Brown & Fraser, 2009), in particular, has critically examined assumptions such as: comfort zone models, oversimplified experiential learning

³⁷ *Ki Waho* is a professional practice magazine published by Outdoors New Zealand for outdoor practitioners.

models, the concept of transfer, and the role of risk, which have largely been central to outdoor education thinking and practice. Throughout his writing Brown does not advocate for the wholesale abandonment of adventure concepts or activities in outdoor education. Rather he is committed to expanding the pedagogical potential of outdoor experiences and ensuring this focus on learning is underpinned by sound educational theory and practice. The challenges to problematic assumptions presented by Brown shares common ground with critiques by international outdoor and environmental education academics, such as Brookes (1994; 2003a; 2003b), Martin (1999; 2008b), Payne, (2002), Lugg, (2004), Wattchow (2011), Loynes (2002), and Nicol (2002a; 2002b; 2003). Whilst these authors have been discussed elsewhere in this thesis, the point to highlight here is the history of critical thought within outdoor education fields.

This thesis seeks to contribute to critical perspectives and debates in outdoor education through examining deep cultural assumptions. As detailed in Chapter 2, the theoretical basis for this examination is based on the eco-justice work of Bowers (2001b; 2001c; 2001d; 2003b). Specifically, eco-justice perspectives were interested in how taken-for-granted patterns of thinking, such as anthropocentrism, individualism, linear technological progress, and consumerism impacted on education and the ability for communities to live in ways which were socially, environmentally, and economically sustainable and just. From the perspectives of teachers in this research, it is evident that some outdoor education approaches and activities have anthropocentric tendencies; that is, they use outdoor environments in an instrumental manner which reinforces a person / environment dichotomy and can devalue those environments. This consequently can inhibit the potential for outdoor education experiences to develop meaningful, appropriate, and sustainable relationships between students and the environments they live in and interact with. It is also evident that individualism is present in dominant conceptions of outdoor education, primarily through activities and pedagogies which focus on personal development. This can be problematic in that it detracts from developing social cohesion and community responsibility, whilst obscuring potential social justice issues within outdoor education. It must be noted here that some teachers in this research perceived that outdoor education could resist individualism if learning experiences were facilitated in ways which encouraged greater social awareness, cooperation, and collective responsibility. The challenge here for a re-envisioned outdoor education pedagogy is how might increased social cohesion and responsibility move beyond a group of students sharing an outdoor education experience to address social sustainability and justice concerns in wider local and global communities? This issue will be explored further in a subsequent section.

Two other cultural assumptions were explored in this research; technological progress and consumerism. Whilst Bowers (2001b) suggests it is unhelpful to look at technology in dichotomous terms of good or bad, he does advocate the critical adoption of technologies. This involves considering the ways that certain technologies might contribute to or lessen environmental degradation and sustainable practices. This thesis was concerned with how certain technologies might constrain or hinder outdoor pedagogies which encourage, facilitate and model eco-justice and sustainability principles. Chapter 5 highlighted a number of concerns expressed by teacher research-collaborators about the proliferation of technical products used in outdoor education and the potential environmental and social consequences of this. Some of them expressed a desire to use less technology in order to facilitate learning experiences which were more focused on sustainability. I would argue here that outdoor education practitioners and proponents always need to consider the appropriate use of technology, not only in light of safety or learning outcomes, but also in light of social and environmental sustainability criteria. This is even more important when the influence of consumerism is considered alongside the use of technology. Given the global socio-ecological context highlighted in the introduction chapter, it is reasonable to suggest that consumerism (or hyper-consumerism) in rich Western nations contributes to environmental issues such as climate change and social inequality (see Hamilton, 2010; Hamilton & Denniss, 2005; Plumwood, 2002; Shiva, 2008; Wilkinson & Pickett, 2009). Outdoor education, like all other aspects of life, is subject to the insidious influence of consumerism, which promotes the endless consumption of new products. Given the findings in this thesis, I contend that a re-envisioned outdoor education pedagogy, which seeks to educate for a sustainable future, needs to place greater emphasis on critically examining the influence of technological products on outdoor learning experiences. Furthermore, the normalisation of consumerism which can accompany the use of technical clothing and equipment in outdoor education needs to be critically scrutinised in light of the role that consumptive practices play in global ecological issues.

It must be noted at this point, the difficulties that exist in exposing and critically examining deep cultural assumptions which tend to wander unnoticed through all aspects of life including education. The dual aims of critique and transformative change in this project have at times created tensions for me as a researcher. Whilst these tensions will be discussed in more detail in a subsequent section, it is important to acknowledge how difficult it was to elicit information from teachers about deep cultural assumptions. Whilst it is fair to state that deep cultural assumptions influence some outdoor education programmes and pedagogies in

Aotearoa New Zealand, there is certainly scope for further research here across a wider range of outdoor education practitioners and contexts. Notwithstanding these tensions, this research has also focused on stimulating and facilitating pedagogical change towards more sustainable approaches to outdoor education. A potential model, which captures changes made by teachers in this research, is presented in the next section.

Theme B: Stimulating Change in Outdoor Education towards a Sustainable Future

In Chapter 1 the wider purpose of outdoor education was questioned in light of global environmental and social sustainability issues. Drawing on Orr (2004) and Sterling (2001) I proposed that outdoor education needed to contribute to transformative change toward a sustainable future through considering changes to dominant thinking and practices. Consequently, this thesis has attempted to capture the types of pedagogical change which might lead to more sustainable approaches to outdoor education. Chapters 7 to 11 presented findings from the experiences and perspectives of teachers in this research related to changes they made in a range of different ways. In this section I summarise these findings through presenting a model which, I believe, effectively captures the change process for teachers in this research.

A change model for sustainable outdoor education

As this research project progressed I became aware of change that was taking place in a variety of different ways for teachers in the research group. As I considered these changes I realised that they were largely interrelated. As a result, I developed the change-model presented in this section. I am aware that sometimes models, such as the one presented below, can be reductionist and over simplify complex processes. I am cognisant that pedagogical change for teachers through professional learning and development is multifaceted and complex, as outlined by Timperley et al. (2007). Notwithstanding these cautions, I believe the model presented below in Figure 5, effectively captures and illustrates a process by which teachers in this research developed more sustainable approaches to their outdoor education programmes and pedagogy. From the findings and literature presented in this research, I maintain that effective change towards more sustainable approaches to outdoor education involves the interaction of all three aspects of change and a number of underlying key principles. The evidence which supports this model is obtained from teachers' experiences captured in Chapters 7 to 11. Key aspects of these experiences are summarised in the following subsections to provide further explanation of the change-model.

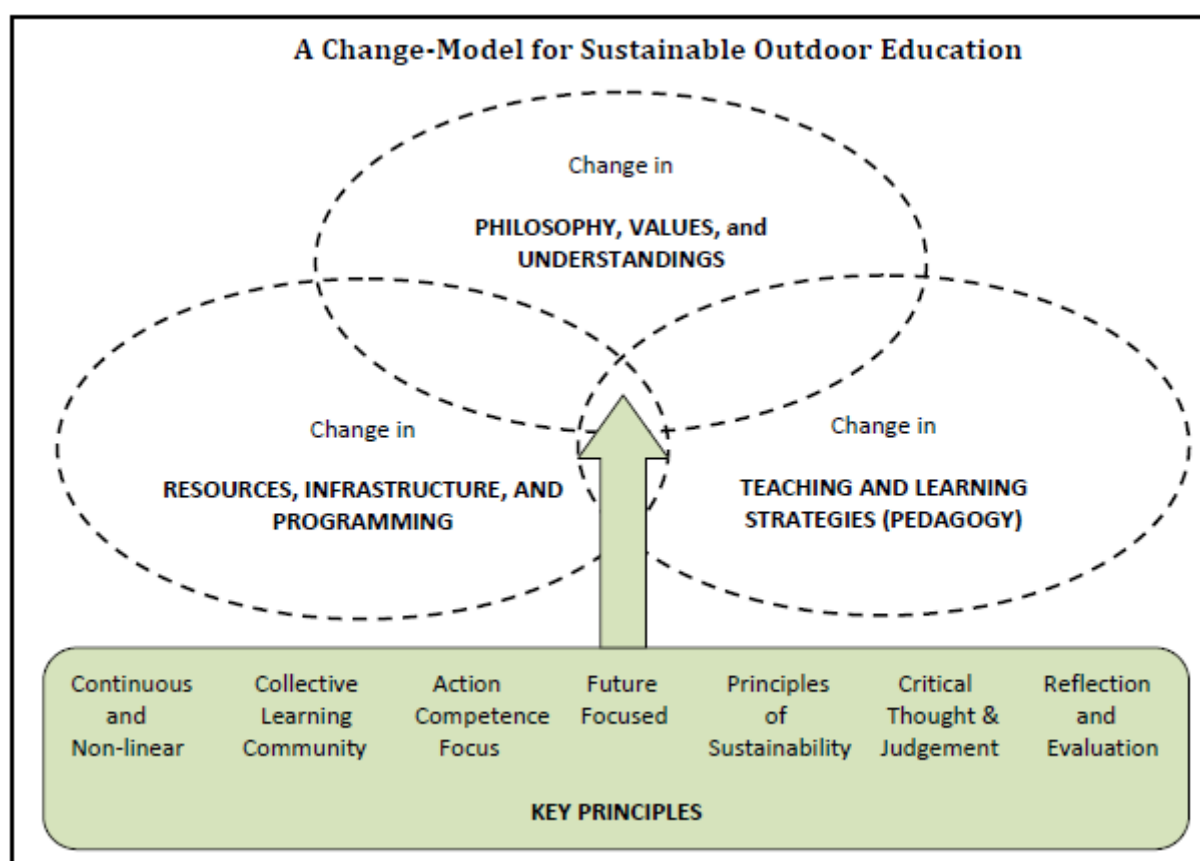


Figure 5. A model for change in outdoor education towards sustainability

Change in philosophy, values and understandings

The findings detailed in Chapters 7 to 11, revealed multiple ways that the research process affected teacher research-collaborators philosophy, values, and understandings related to sustainability. These findings were significant in that they demonstrated how for teachers in this research, change towards more sustainable outdoor education pedagogies was strongly interrelated with shifts or developments in their philosophy, values, and understandings. I believe these shifts were important in two ways. First, I contend that a key part of incorporating sustainability principles and issues into their programmes and pedagogy involved teachers developing, increasing, and even wrestling with their philosophical understandings of sustainability and how these might influence their outdoor education practice. There were a number of examples of this in Chapters 7 to 11. In Chapter 7 Sophie developed a departmental philosophy statement which would underpin all of her outdoor education programmes. The process of developing this statement involved significant gains in Sophie's sustainability knowledge and a realisation that her beliefs and values were intricately tied to her understanding of sustainability. Josh's experiences, detailed in Chapter 8, revealed how the

research process impacted on his knowledge, values, and philosophy, and how he was presented with a number of challenges and tensions as a result. In Chapter 10, Mike revealed how the research process helped him to further develop and synthesise deeper understandings of sustainability. Chapter 11 revealed a perceived lack of knowledge about sustainability for Rachel, but indicated how the research process had helped to improve her understandings. In all of these cases, changes in philosophy and understandings had wider impacts on teachers' programmes and pedagogy. Through increased understanding they were able to implement new initiatives, rethink existing teaching and learning activities, and to some extent critically analyse their programmes. The underlying role that increasing knowledge has in these shifts is supported by literature. In a foreword to Timperley et al.'s (2007) *Teacher Professional Learning and Development Best Evidence synthesis*, Earl (2007) suggests that in order to develop competence in any area of inquiry, teachers must have a deep factual knowledge.

The second reason I believe developing philosophy, values, and understandings is an important part of incorporating sustainability into outdoor education is related to consistency between teachers' values and actions and what they are trying to teach. In Chapter 9 Bryn highlighted the importance of teachers role-modelling sustainability principles and practices in their pedagogy. Mike and Josh also spoke about the role modelling and the need to avoid hypocrisy between words and actions. In Chapter 11 Rachel talked about how she has become more sympathetic to sustainable practices and has tried to incorporate these into her own life. My argument here is that through improving understandings and examining philosophies and values related to sustainability, teachers may be more able to effectively role-model sustainable behaviours. This process is neither simple nor easy however. Several of the teachers in this research spoke of the tension they felt with the level of inconsistency between their sustainability values and lived reality of their lives. Josh articulated this well when he stated "I think there's potential for a perception of hypocrisy and actual hypocrisy as well" (Final Interview, Dec 09). I acknowledge that attempting to practice and teach sustainability principles will inevitably be accompanied by tension, contradiction, and even hypocrisy. This certainly appeared to be the case for teachers in this research. I have written elsewhere about the importance of consistency between teachers' beliefs and practices in regard to adopting critical socio-ecological perspectives in outdoor education (Hill, 2010b). Notwithstanding the tensions revealed in this research, I contend that developing consistency between what teachers teach and practice through improving their philosophies, values, and understandings related to sustainability is an important part of developing sustainable outdoor education pedagogy.

This research project has revealed a number of changes in philosophy, values, and understandings for teacher research-collaborators in regard to sustainability principles and issues. These shifts have in many ways laid the foundation for other changes which occurred in their outdoor education programmes and pedagogy. The next two subsections detail the two further areas where changes occurred: Resource use, infrastructure, and programming; and teaching and learning strategies.

Change in resources, infrastructure, and programming

The second level of change towards more sustainable approaches in outdoor education involves change to resource use, infrastructure, and programming. These areas are pragmatic and might involve thinking critically about and/or making change to things such as: vehicle use; amount and type of equipment used; location of programmes or activities; food planning, purchase, and preparation; waste minimisation, reuse, recycling, and disposal; activity and assessment of content of programmes; and sustainable use of buildings and lodges, to name a few. Scattered through Chapters 7 to 11 there were examples of teachers implementing changes in this area. A tramping trip that Sophie led became focused on more sustainable approaches to food consumption and waste minimisation. This involved students taking action to seek out more sustainable food options. Josh re-wrote course plans to include more aspects of sustainability in these. Mike looked at how aspects of his programme, particularly tramping, could be more sustainable through using a triple-bottom-line analysis. This included students looking at reducing vehicle use and impacts. Rachel introduced new teaching and assessment content into her programme which looked critically at outdoor clothing and equipment from sustainability perspectives. This led to one student taking action by buying a locally made raincoat.

All of the examples above involve taking action. Environmental educators, Jensen and Schnack (1997), and Eames, et al. (2010) suggest that developing action competence in students to address environmental and social issues is a key part educating for a sustainable future. Whilst I will discuss this in more detail in the next section, I would argue that the development of action competence in outdoor education needs to include teachers, instructors, and outdoor centres. In many ways the types of practical changes that can be made in the area of resources use, infrastructure, and programming, demonstrates action competence. I would contend, therefore, that to stimulate genuine change towards more sustainable approaches to outdoor education there needs to be some level of action, as demonstrated by teachers in this research.

Whilst acknowledging that many of these changes may not have occurred if teachers had not increased their understanding of sustainability, I maintain it is not sufficient to develop philosophies, understandings, and values related to sustainability if there is no subsequent action.

Change in teaching and learning strategies

There were several examples of new or modified teaching and learning initiatives, activities, or strategies from teachers in this project. Bryn utilised his relatively well developed knowledge of sustainability to explore how different teaching and learning contexts and activities might engender in his students a greater sense of connection to and care for their environments. Josh investigated teaching and learning activities which focused on connection to place to ascertain how they had affected his student's attitudes and behaviours. He concluded that some of these activities did have a positive impact on his student's environmental awareness and knowledge, and contributed to them developing more sustainable attitudes and behaviours. Sophie made subtle changes to some of her teaching and learning activities to include aspects of cultural history and geography of the Port Hills which she perceived helped to improve students' learning about those environments. Josh provided an excellent example of a sustainability focused teaching and learning initiatives which he introduced into his course. He suggested these teaching sessions were well received by students and helped them to think further about the place of sustainability in outdoor education. Rachel introduced a variety of new teaching and learning initiatives into her year 12 outdoor education course through her "Buy New Zealand Made" unit which was based on an education for sustainability achievement standard. The teaching and learning content and process of this unit appeared to be well received by teachers and students and be an effective way of incorporating sustainability principles and issues into her outdoor education course.

All of the above examples provide evidence of the importance of overtly incorporating sustainability principles and issues into teaching and learning contexts if outdoor education is to move towards a more sustainable approach. I contend that change in the area of teaching and learning strategies perhaps provide the greatest opportunity for impacting student learning. However, I believe that change in this area is influenced by philosophy, values and understandings. There is no recipe for 'doing sustainability' in outdoor education. The teachers in this research all took different approaches to the teaching and learning strategies that they implemented. In all cases these initiatives were grounded in teachers' understanding of

sustainability issues and principles and their belief that sustainability was important to include in their teaching programme. It is also useful to view change in teaching and learning strategies alongside changes to resource use, infrastructure and programming as these are often complementary. Practical changes also provide contexts for teachers to introduce innovative approaches to student learning about sustainability issues. A good example of this was the tramping trip, facilitated by Sophie, which focused on more sustainable food choices. This provided excellent opportunities for students to learn about sustainability issues and principles and a practical way in they could take action. As discussed in a previous section, student learning that is related to action competence is an important part of education for sustainability. How student action competence can be developed through outdoor education is an interesting issue which will be further discussed in the next section. Prior to that, it is important to detail the underlying principles which guide the change model being presented here.

Underlying change principles

The change-model for sustainability outdoor education presented in this section is underpinned by several important principles. In an implicit manner, these principles have guided the changes that teacher research-collaborators have made through their involvement in this research. These principles have been derived from aspects of the participatory action research methods adopted in this research and sustainability principles from literature. It is useful to briefly outline the contribution of each principle here:

- **Continuous and non-linear:** The continuous nature of effective change means it takes place over an extended period of time rather than at a discrete point. Timperley, et al. (2007) suggest that attending one-off workshops rarely changes teacher practice significantly and that extended timeframes are more conducive to effective change, although quality use of time is important. The non-linear component of change refers to the action research spiral (Kemmis & McTaggart, 2005) where educators may make changes and then revisit and modify these changes on multiple occasions based on observation and critical reflection.
- **Collective learning community:** Kemmis and McTaggart (2005) also speak of the importance of a collective community to bring about effective change in action research. Timperley, et al. (2007) suggest a professional community of practice is a key aspects of effective professional learning and development.

- Action competence focus: As previously discussed, developing action competence is a key component of effective education for sustainability pedagogy and therefore important for sustainable approaches to outdoor education.
- Principles of sustainability: This refers to strong sustainability and education for sustainability theory, discussed in Chapter 2, and the principles which come out of these perspectives.
- Critical thought and Judgement, and Reflection and evaluation are key aspects of both action research theory (Kemmis & McTaggart, 2005) and effective professional learning and development (Timperley et al., 2007).

These underlying change principles form an important part of a change-model which might inform more sustainable approaches to outdoor education. They reflect the methodological influences of this thesis and literature pertaining to education for sustainability and teacher professional learning and development.

Summary

As Earl (2007) has argued, teachers' philosophies, values, understandings, and skills, in relation to student learning and success are critical. Clearly what teachers know and do make a difference to student learning. This is of importance when considering the goal of educating for a sustainable future. As discussed in Chapter 3, sustainability perspectives have been marginalised by Western neoliberal influences in education and dominant adventure pursuit constructions of outdoor education. If education, and more specifically outdoor education, is to seriously confront and address global social and environmental crises, change needs to occur in what teachers know and do. Pedagogical change is at the heart of this thesis. Although modest in both breadth and depth of change, teachers in this research project have implemented change in a variety of ways to improve their ability to educate for a sustainable future. The change-model, presented in this section has summarised this change process. Notwithstanding the caveats issued at the beginning of the section, I believe that this model provides a good way of viewing the interrelated and complex ways that pedagogical change took place for teachers in this research project.

This section has looked specifically at the change process which has underpinned a re-envisionment of outdoor education in this research. It is specifically related to sustainability issues, principles and outcomes in secondary education contexts. As teachers engaged in this change process, a number of insights and issues emerged with regard to conceptualisations of

sustainability and the place of sustainability in outdoor education. It is to these insights and issues that the next section now turns.

Theme C: Reflections on Sustainability in Outdoor Education

This section reflects on how teachers in this research conceptualised sustainability and details the application of key aspects of sustainability to outdoor education including potential constraints and enablers. Specifically it does this through the following five subsections. First, conceptual disparities between socio-cultural and environmental aspects of sustainability are explored. Second, the role of outdoor education and cross-curricular approaches in educating for a sustainable future are examined. Third, connection to place and experience as key parts of a possible sustainable outdoor education pedagogy are discussed. Fourth, action competence in relation to outdoor learning experiences is examined. In particular this examines how outdoor education might promote sustainable actions in local urban environments as well as distant and pristine places. Fifth, constraints to sustainability in outdoor education are discussed.

Conceptualisations of sustainability

An important point which influences sustainable approaches to outdoor education pedagogy is the way that teachers conceptualise sustainability. That is, how might they understand sustainability, what aspects of sustainability do they deem to be important, and how might they envision implementing this in their outdoor education programmes? The theoretical framework detailed in Chapter 2 provided holistic insight into the way that environmental/ecological, socio-cultural, and economic aspects were interwoven into concepts of sustainability and eco-justice. How these theoretical concepts were understood and articulated by teachers in this research is of considerable interest here.

As conceptualisations of sustainability were discussed through Chapters 7 to 11, an apparent disparity emerged between socio-cultural and environmental aspects of sustainability. This disparity was evidenced through understandings articulated by teachers which were mostly oriented towards environmental aspects or issues. All teachers in the research group indicated the importance of environmental awareness and guardianship in their personal philosophies and values, and their pedagogy and programmes. Many of the action plans of teacher research-collaborators were focused on environmental issues or principles. However, there was generally a lack of socio-cultural foci within teachers' action plans and understandings of sustainability. This is not surprising given that outdoor educators often express a strong affinity for and

connection to the outdoor environments where a lot of outdoor education experiences take place. In these places there are also immediate and tangible reasons for environmental appreciation and care. Whilst this strong bond with the environment is important, I believe it can work to obscure social justice issues. In Chapter 10, Mike expressed a holistic understanding of sustainability which included socio-cultural, environmental, and economic aspects. However, most of the sustainable actions in his outdoor education programmes were related to environmental issues and he provided few details about how social justice issues might be addressed through outdoor education. In Chapter 11, Rachel implemented an education for sustainability unit, “Buy New Zealand Made”, which looked critically at the production, distribution, and consumption of outdoor clothing and equipment. Notwithstanding the learning about sustainability that this unit engendered for students, it remained largely silent on social justice issues.

Dominant conceptions of outdoor education have often focused on social or interpersonal development as discussed in Chapter 3. Through Chapters 5 to 11 there were examples where teachers in this research spoke about the group and social learning opportunities in outdoor education. A previous section of this conclusion indicated how social awareness and group cohesion and responsibility in outdoor education could work to resist the cultural assumptions of individualism. However, despite these admirable social aims, very few of them speak to the social inequality issues discussed in the introduction chapter. In my view the majority of social or interpersonal objectives in outdoor education seem focused on small groups interacting in specific outdoor experiences which often have little or no bearing on the social realities of students’ home communities. Despite some international literature related to social justice in outdoor education (see Warren, 1998; Warren & Loeffler, 2000), there appears to be even less critical engagement with global social justice issues from dominant notions of outdoor education, particularly in Aotearoa New Zealand.³⁸ I contend that this is a gap in outdoor education theory and practice which needs to be addressed if sustainability issues and principles are to form part of a re-envisioned outdoor education pedagogy. I believe part of addressing this gap lies with increasing teachers’ understandings of sustainability to include a focus on socio-cultural aspects. There still remains, however, the challenge of translating understanding

³⁸ I have attended many meetings, conferences, and forums, with the outdoor sector in Aotearoa New Zealand over the past ten years. Overwhelmingly the people attending these gatherings appear to be white and middle class and somewhat male dominated. In my view there is a lack of engagement with Māori (and other ethnic groups) by the outdoor sector and very little consideration given to social justice issues.

into action. This challenge remains for future research and professional learning and development initiatives.

Cross-curricular approaches to sustainability

Given the silences on social justice issues, it becomes apparent that it is difficult for dominant notions of outdoor education to fully address all aspects of sustainability. However, as discussed in the first section of this conclusion, outdoor education in Aotearoa New Zealand is currently undergoing critical scrutiny. Although there is still a predominance of adventure pursuit activities in outdoor education programmes there are increasing challenges to assumptions which underpin learning from these activities. Moreover, teachers in this research suggest that outdoor education is more than just adventure pursuit activities as has been evidenced by the variety of pedagogical innovations they have implemented. One of the important shifts here for some teacher research-collaborators was to view outdoor education in more of a cross-curricular light. I believe cross-curricular thinking and planning, which might include a variety of teaching and learning activities and assessments, forms a basis for conceptualising outdoor education as a pedagogical approach.

I contend that a shift to view outdoor education as a cross-curricular pedagogical approach, rather than a defined subject area, creates greater potential for sustainability learning objectives and outcomes. As discussed in Chapter 6, teachers in this research group felt that cross-curricular thinking was an enabler to sustainable approaches in outdoor education. This was evidenced by Rachel's initiative to include an education for sustainability achievement standard into her year 12 outdoor education course. I believe the key here is to challenge the constraints imposed by the boundaries of traditional secondary school subjects and think innovatively about how cross-curricular learning in outdoor environments can help educate students towards a sustainable future. This may be difficult given the traditional structure of most secondary schools, an issue that I will discuss below. The next subsection explores the notion of connection to place as another key aspect of sustainable approaches to outdoor education.

Connection to place as a central theme for sustainable outdoor education

The notion of connection to place as a key idea in sustainable approaches to outdoor education has emerged as a significant theme in this thesis. The concept of place has been subject to theorisation, debate, and discussion over the past four decades, which is well

documented by Wattchow and Brown (2011, pp. 51-76). Whilst an exhaustive engagement with this literature was beyond the scope of this thesis it is useful to briefly explore the concept of place. Wattchow and Brown (2011) state that “place is suggestive of both the imaginative and physical reality of a location and its people, and how the two interact and change each other” (p. xxi). This conceptualisation of place is useful to this thesis in that it recognises the interwoven nature of people and environments as expressions of place. It also supports many of the teachers’ perceptions of place and the interrelationship between place and sustainability which are summarised in this subsection. Chapter six initially developed the connection to place theme from teachers’ thoughts at the beginning of the research process. This theme was then revisited and further developed through Chapters 7, 8, and 9. There are three key points related to connection to place which will be discussed here: how connection to place was conceptualised by teachers in this research; how outdoor learning experiences support connection to place; and what influence connection to place has on sustainable actions.

Connection to place was conceptualised in similar ways by most teachers in this research. Sophie spoke of connection to place as “love” and “respect” for the environment. Josh spoke of “affection for nature” and a sense of “gratitude and gratefulness” of a place. Bryn expressed connection to place in terms such as “appreciation”, “love”, and “intimacy” with the natural world. These terms are commensurate with ideas expressed by place-based educators such as Sobel (1996), Orr (2004), and Gruenewald and Smith (2008). However, these terms must be viewed in the context within which they were used. As discussed earlier, a lot of outdoor education experiences occur in relatively remote environments which are often thought to be ‘pristine’³⁹. Therefore in most cases when teachers in this research refer to place they are referring to those ‘pristine’, outdoor environments where they facilitate learning experiences. This is problematic in that it can create a dichotomy between the ‘distant and pristine’ places where outdoor education occurs and the ‘local and degraded’ places where students and teachers reside. This issue will be discussed further in subsequent sections.

Teachers in this research revealed how outdoor education experiences were ideally placed to help develop connection to place. Josh spoke of how outdoor education allowed for “direct experience of nature” which could stimulate affection for those places. Bryn spoke of the

³⁹ Although outside the scope of this thesis, I note that concepts such as ‘pristine’ and ‘wilderness’ are contested and problematic. See Boyes (in press) *Bring wilderness home: Navigating the educative waters*, for a critical discussion of these concepts related to Aotearoa New Zealand.

emotional and experiential nature of outdoor education suggesting this could lead to an “intimate knowledge” of and “real appreciation” for places. John suggested outdoor education experiences could have a transformational effect where pristine environments can “impress with their own identity”. I want to highlight an important point here about the contribution that connection to place can make to sustainable approaches to outdoor education. Outdoor education has a rich, although somewhat problematic relationship with experiential learning theory (Brown, 2009).⁴⁰ Taking into account these potential theoretical concerns, I believe the experiential nature of many outdoor learning experiences provides fertile ground for helping students to develop emotional and rich connections with environments. However the way in which outdoor education experiences are structured and situated is critically important. As Tom suggested in Chapter 6 prior experience and familiarity with places along with knowing their histories and stories is an important part of connecting to places. Sophie spoke about outdoor learning experiences in the Port Hills where a greater understanding and focus on cultural histories and geographies of those places helped to enrich students’ learning. Bryn spoke about moving from being a “visitor in a foreign place to being comfortable, at home”. The point here is that infrequently moving quickly to or through places, with little regard for anything but the activity at hand, as instrumental and anthropocentric outdoor education practices have done, may offer only limited opportunities to develop connection to place. This is supported by Payne and Wattchow’s (2008) slow pedagogy approach to outdoor education which is characterised by a multilayered experience of place. The key issue here for outdoor educators to explore is how these types of multilayered experiences of place can be incorporated into outdoor education programmes and pedagogies.

A further point to emerge in this thesis is how connections to place might be a precursor or stimulus to sustainable attitudes and actions which might lead to a greater sense of environmental guardianship. In Chapter 6 John talked about guardianship in terms of ownership of environmental issues and owning the places you interact with. Here John is not referring to exclusive legal land ownership but rather a position of deep connection to place and understanding of our impact on and relationship with place. Josh spoke of a connection with the earth which helps him to care for the environment. Sophie suggested a connection with the land gave people “more commitment to looking after it”. In Chapter 9 Bryn focused on how learning

⁴⁰ Brown (2009) problematises the individualistic and overly cognitive focus of experiential learning theory in outdoor education and suggests that greater emphasis should be placed on the situated nature of learning in outdoor adventure education.

experiences which engendered connection to place worked to increase his students' sustainable attitudes and behaviours. He maintained that connection with the natural world helped to develop a desire for action and care for the environment. Furthermore, he argued that intimate knowledge and appreciation for environments did impact on students' sustainable attitudes and behaviours and acted as a catalyst for change beyond his outdoor education programmes. Whilst recognising and valuing the learning that transpired for Bryn's students, understanding and ascertaining these types of changes in students can be problematic. As Josh pointed out in Chapter 8, there are real issues with attempts to change students' behaviours and decisions towards being more sustainable; how can teachers know if these changes are authentic or long lasting? As this project focused on change for teachers rather than students, it is beyond the scope of this thesis to comment too much here. Suffice to say that this issue warrants further investigation, debate, and research. A further issue that lingers here is how learning related to sustainable attitudes and behaviours in outdoor education contexts might translate or connect to students' everyday lives. This issue has been discussed frequently in the thesis and will be summarised in the sub section below.

Action competence: Moving from the pristine and distant to the local and degraded

As discussed in a previous section, developing action competence is a key part of education for sustainability and, therefore, any approach to outdoor education which claims to be sustainable. Action competence refers to "the capacity to be able to act, now and in the future, and to be responsible for one's actions" (Jensen & Schnack, 1997, p. 176). Eames, et al. (2010) have conceptualised action competence in a New Zealand context as a "broad range of competencies to guide appropriate action, and the ability, attitudes and values, willingness and opportunity to act . . . to achieve better outcomes for the environment and sustainability" (p. Appendix F). In their *Action Competence Framework*, Eames, et al. (2008) identify six key components of action competence adapted from Jensen and Schnack (1997). These include: experience, reflection, knowledge, vision for a sustainable future, action taking, and connectedness. Throughout this research there have been multiple examples of these aspects of action competence present in the initiatives implemented by teacher research-collaborators. I would argue that this research project has increased the action competence of the teachers involved. Moreover, as detailed in the previous subsection, there have been some improvements in action competence for students as reported by teachers. This was evidenced in Chapters 7 to 11.

However, many of the changes in attitudes and behaviours towards more sustainable actions revealed in those chapters were specific to outdoor education contexts and activities. This is problematic when considering how outdoor education might contribute to educating for a sustainable future. Whilst it is important to conserve the environments where outdoor education might occur, such as national and forest parks, simply caring for these environments will have little impact on addressing global sustainability issues. As revealed in the introductory chapter, global issues such as climate change, ecosystem degradation, and social inequality have their roots in Western consumerist societal structures. Therefore, it is in teachers' and students' everyday lives where sustainable practices will have the greatest impact on social and environmental issues. I believe this is a significant challenge for a re-envisioned outdoor education pedagogy based on sustainability. How can opportunities for developing action competence, which influences the everyday lives of teachers and students, be promoted and facilitated through outdoor education experiences. I believe this requires a shift from focusing on the distant and 'pristine' to the local and degraded. It involves outdoor educators actively seeking out local places within their city or town environs to engage with. It also involves taking action to improve or restore aspects of those places, whether socially or ecologically. I am not advocating for a complete abandonment of the places where traditional adventure activities such as tramping, climbing, cycling, or kayaking might take place. As previously discussed, it is important to engage students with an appreciation, connection, and even love for the environment. The grandeur and the beauty of much of the New Zealand conservation estate can powerfully mediate these feelings and connections. The challenge for a re-envisioned outdoor education pedagogy is to create opportunities for teachers and students to do this in their everyday environs as well as the far away and 'pristine'.

Constraints to sustainability in outdoor education

Throughout this thesis a number of possible constraints to sustainable approaches to outdoor education have been identified and discussed. This subsection summarises these. First, it will explore assessment culture within secondary schools and specific assessment tools available to outdoor education programmes as constraints. Second, it will explore how institutional (school) structures, including leadership, might act as constraints.

Teachers in this research perceived two aspects of assessment in secondary schools that made incorporating sustainability into their programmes and pedagogy problematic. The first was the strong focus on assessment in secondary schools which detracted from broader and

more holistic learning possibilities. Therefore some teachers felt that learning that was not directly associated with assessment standards, such as some sustainability issues and principles, were marginalised. As discussed in Chapter 3, a strong focus on assessment and qualifications is in some ways a product of neoliberal influences on education. While I believe there is an important place for assessment in education I believe that assessment should not overshadow learning. It is therefore important for re-envisioned sustainable outdoor education pedagogy to appropriately balance learning and assessment. This may well be a difficult task given the insidious influence of assessment cultures currently with secondary schooling in Aotearoa New Zealand.

The second potential constraint for sustainable approaches to outdoor education was related to the nature of assessment tools available to outdoor education programmes. Most teachers in this research used industry based unit standard assessments from Skills Active⁴¹. They perceived that these standards were largely focused on practical outdoor pursuit skills with only a token mention of the environment. Teachers felt that the limited scope of these standards constrained their ability to incorporate sustainability into their programmes and pedagogy. I believe there are two possible solutions to this constraint. First, look for alternative assessment tools from different curriculum areas to assess the content that teachers want to include in their existing outdoor education programmes. An example of this was provided by Rachel in Chapter 11 where she implemented an education for sustainability achievement standard into her year 12 outdoor education course. The second approach is to re-envision outdoor education as a pedagogical approach which draws holistically from cross-curricular influences. This may require collaboration within schools to ensure students learning needs were being met alongside the goals of educating for a sustainable future.

The second constraint to sustainability was institutional (school) structures. It is clear from literature that sustainability should be a school wide issue and priority (Eames et al., 2010). Consequently it is not just outdoor education teachers' responsibility to incorporate sustainability into their pedagogy and programmes. It should be the responsibility of all aspects of schooling. As Sterling (2001) and Law (2005) point out, this requires a system redesign which is challenging. Sustainability foci tend to be pushed to the margins by dominant discourses in Aotearoa New Zealand education, currently headed by numeracy, literacy, standards,

⁴¹ Skills Active, formerly SFRITO, sets standards and assessment tools for the sports, fitness and recreation industries in New Zealand.

qualifications and a separation of curriculum processes from learning outcomes (Codd, 2005). For sustainability to become a meaningful focus in secondary school education there needs to be strong leadership from principals and curriculum leaders underpinned by a commitment from central government and the Ministry of Education. Currently this is not the case in New Zealand as central government spending is targeted to other areas and sustainability initiatives are cut.

This section has summarised reflections on sustainability and its place within a re-envisioned outdoor education pedagogy. Whilst it is clear that outdoor education is not the panacea or instant fix for sustainability issues, it can and does have an important role to play in educating students for a sustainable future. Chapter 7 to 11 revealed a number of ways that sustainability can be interwoven into outdoor education programmes and pedagogy through a participatory action research approach. This particular methodological approach has met with a number of challenges; reflections on which are the foci for the following section.

Theme D: Reflections on Methodology and Theoretical Framework

This section critically reflects on the conceptualisation and usefulness of the methodological and theoretical approaches adopted in this project. First, it explores the usefulness of the eco-justice and sustainability theoretical framework which underpinned this project. Second, it discusses the usefulness of bricolage as a methodological framework including exploring the tensions and successes of integrating aspects of critical ethnography and participatory action research within one research approach. Third, it explores participatory action research as a collaborative means of effective professional learning and development for teachers.

Reflections on an eco-justice and sustainability theoretical framework

In Chapter 2 I detailed a theoretical framework concerned with educational and social change towards more socially and ecologically sustainable and just ways of living. It was underpinned by critical theories and pedagogies that sought to identify and resist domination and oppression in political, social, economic, and educative structures. In a postmodern turn this framework rejected totalising grand narratives such as the autonomous emancipated individual. In a move away from a 'one size fits all' emancipation, an eco-justice and sustainability theoretical perspective advocates that change towards economic, socio-cultural and ecological sustainability must be bio-regional; that is, it must take account of local contexts, cultures, language, customs, and knowledge. In effect it will look different in different places. This

framework provided the central pillar around which this research project and thesis has been constructed. The intention of this subsection is to reflect on the usefulness of this theoretical framework in this research rather than revisit the details of the framework itself. It does this through discussing the issues associated with navigating large and diverse theoretical fields and the inevitable gaps that accompany such a synthesis. I will also outline how I believe this theoretical framework has been useful in the research process, and discuss the implications it has for re-envisioning sustainable outdoor education pedagogy.

In conceptualising eco-justice and sustainability I drew on: critical theory and the Frankfurt school, postmodern critical theories, critical pedagogy, critical ecological theories, and sustainability theories. I believe that the selection and synthesis of these perspectives provided a comprehensive theoretical framework for this thesis. However, it is important to recognise that this framework spanned diverse theoretical fields and in doing so was subject to some inevitable gaps. It was impossible to include all theoretical perspectives which might have had some bearing on this project and some that were excluded were acknowledge in Chapter 2. There is one gap which deserves further discussion here; that is Māori indigenous perspectives on environmental and social sustainability. As briefly highlighted in Chapter 6, Māori concepts such as *kaitiakitanga*⁴², *manaakitanga*⁴³ have some similarities with notions of environmental and social sustainability. Nevertheless, these concepts were not included in the theoretical framework for this thesis for the following reasons. First, being Pākehā (non-Māori) I personally felt uneasy about entering cultural terrain where I had only limited understanding and little *mana*⁴⁴ by which to engage with such concepts. Second, I was cognisant of the caution provided by M. Roberts, et al. (1995) concerning the use of Māori concepts and language in isolation from their cultural context. Third, none of the teachers in my research group were of Māori descent or working in overtly Māori contexts. Notwithstanding these reasons, I believe there is an important place for indigenous Māori perspectives in bicultural approaches to outdoor education and sustainability in Aotearoa New Zealand as advocated by Irwin (2010b). Whilst this theme has been developed by Irwin to some extent, I believe there are significant opportunities for future research and discussion in this area.

⁴² *Kaitiakitanga* is commonly translated as guardianship or stewardship.

⁴³ *Manaakitanga* can be associated with responsibility for hospitality, reciprocity, and care.

⁴⁴ *Mana* is a Māori concept which is associated with authority, influence, prestige, power, and honour.

An eco-justice and sustainability theoretical framework has been useful to this research process in a number of ways. First, through the eco-justice perspective articulated by Bowers (2001a; 2001b; 2001d; 2003a), it provided theoretical insight into deep cultural assumptions. In particular, Bowers identified how deep cultural assumptions influenced and underpinned contemporary Western societies, which established how these assumptions interacted with dominant notions of outdoor education pedagogy. Second, the theoretical framework helped to identify what the concepts of eco-justice and sustainability entailed and provided guidance into the types of philosophies, understandings, values, attitudes, behaviours, practices, and pedagogies which might be considered sustainable. These sustainability and eco-justice principles also provided a clear picture of what moving towards a sustainable future might look like. Furthermore, aspects of the theoretical framework presented in Chapter 2, combined with the findings and interpretations presented in Chapters 5 to 11, provide potential ground for a significant theoretical contribution to outdoor education in future publications. As Brown (2009) has identified, outdoor education is in need of more robust and appropriate theoretical foundations. I argue, given the social and environmental issues communities throughout the world now face, this theoretical foundation should be based on a critical socio-ecological perspective. Aspects of this thesis provide an ideal starting point for this important theoretical work. With additional empirical inquiry into the influence of deep cultural assumptions accompanied by more depthful and synthetic theoretical research, there are significant opportunities to develop a comprehensive, robust, and original socio-ecological theoretical foundation for outdoor education in future publications.

There are, however, significant challenges and complexities which accompany this future theoretical work. In determining possible directions that socio-ecological theorisations might take, it is important to acknowledge the political influences and implications of such trajectories, particularly if these directions intend to claim the ground of sustainability. As discussed in Chapter 2, sustainability continues to be a contested concept which is undermined by multiple interpretations, subject to political power struggles, and often characterised by ineffective or inadequate action; 'doing some good or less bad'. Blühdorn (2011) suggests the most common interpretation of sustainability in modern Western nations has been that of sustained competitiveness and economic growth, leading to sustainability being institutionalised in its weakest possible form. This form, akin to the "*Mickey Mouse*" model of sustainability (SANZ, 2009), discussed on p. 39, is impotent in its ability to oppose and break down the traditional models of economic development and consumerist society which are at the root of ecological

and social sustainability issues. Blühdorn (2011) refers to this as the ‘politics of unsustainability’, defined by the “effort to secure and defend social practices and socioeconomic structures that are well known to be unsustainable” (p. 36), and by *ecological paradox*; that is, “the curious simultaneity of an unprecedented recognition of the urgency of radical ecological policy change, on the one hand, and an equally unprecedented unwillingness and inability to perform such change, on the other” (p.36). This paradox, most recently evident at the 2009 COP 15 climate change conference in Copenhagen, has led to modern Western societies, such as Aotearoa New Zealand, being firmly locked into a politics of unsustainability (Blühdorn, 2007, 2011). The implications of a politics of unsustainability are serious and complex for any socio-ecological theorisation which intends to engage with and lead towards sustainability. Does such a theorisation seek to resist or overcome the ecological paradox described by Blühdorn and present a radical change framework which effectively addresses the immense ecological and social issues our communities now face? Whilst such a theorisation may be achievable, is it palatable, desirable, or pragmatic? Might it lead to the alienation of teachers and students who feel they are powerless to make the level of radical change required? Yet can such a theorisation do anything less? Without a radical politics, which seeks to disrupt and transform the very fabric of our unsustainable consumer culture, is such a socio-ecological theorisation destined to impotently perpetuate the status quo and contribute to educational institutions continuing to be locked into the *politics of unsustainability*? Indeed, these are serious questions and ones which must be dealt with skilfully and carefully in this important theoretical work.

The nexus of theory and practice must also be considered in relation to the politics of social change. The experiences and perspectives of teacher research-collaborators represented throughout this thesis provide glimpses into the possibilities of pedagogical change towards more sustainable approaches. It would be naive not to recognise how these actions were constrained within a broader *politics of unsustainability* which influences multiple levels of the education system in Aotearoa New Zealand, from the ideology of Central Government and Ministerial policy through to vision, values, and pedagogies of individual schools. In light of this broader political terrain it may be tempting to dismiss the actions implemented by these teachers as a mere ‘drop in the ocean’; as actions which are ineffective in contributing to the level of radical change required or lost within a sea of unsustainable practice. Whilst there can be no denying the imperative for change at policy and institutional level, the tangible examples of ‘grass roots’ social change in this thesis provide important context and direction for theoretical work which aspires to be both critical and transformative. The recognition of multiple

levels of political change, multiple voices within that struggle, and the incremental nature of social change on the ground are key aspects of the theoretical aspirations of this thesis.

Reflections on Sustainability, Bricolage and Methodology

This section explores how sustainability and eco-justice theoretical perspectives, along with bricolage, had epistemological, ontological, and methodological implications for this research. The eco-justice and sustainability theoretical framework, discussed in the previous section, was grounded in a moderate oppositional postmodern perspective which recognised multiplicity, difference, and the complexity of the lived world, while still adhering to a normative framework which privileged sustainability. These perspectives compelled a research approach which avoided simple and neatly packaged 'one-size-fits-all' answers. Consequently, Chapters 7 to 11 provided representations of teachers' experiences and perspectives which were richly contextual. Whilst these chapters contained common principles and ideas that have been drawn together to form some conclusions, they highlighted the importance of allowing diverse voices and experiences to be heard. Furthermore, it is important to highlight here how the concept of bricolage provided a congruent and complementary connection between theoretical and methodological aspects of this thesis.

Bricolage kept in focus the complex and contextual ways in which knowledge was socially constructed throughout the research process. This recognised the multiple influences on teacher research-collaborators as they sought to incorporate sustainability into their outdoor education programmes and pedagogy. It also recognised the way in which teachers in this research worked collaboratively as a collective to share ideas and influence each other. These social processes had positive consequences which helped to facilitate change in outdoor education programmes and pedagogy towards more sustainable approaches. But they may also have constrained more diverse approaches by teachers in the research. Here I recognise the power relations that existed both within the research group and between myself as researcher and teacher research-collaborators. Although no specific statements were made by teacher research-collaborators relating to this, I am cognisant of the possible covert or hidden ways that they may have been pressured to comply or conform within the research group. Third, bricolage compelled a reflexive research approach whereby it was important for me to recognise my own value-laden subjectivity and the influence it had on the research process. Throughout the action research phases of the research I was providing professional learning and development opportunities for teacher research-collaborators which were filtered through my own subjectivity and values. In a

reflexive way, I was open about my subjective position; I communicated this to the teacher research-collaborators, and was aware of how it influenced my interactions with them. I believe that recognising the subjective influences at work in this research increases the authenticity of this thesis and exposes assumptions which might otherwise wander unnoticed within it.

Bricolage could also be seen to be problematic in the context of this research. In a world which seeks definitive answers, clear evidence, and step-by-step solutions, the types of contextual and contingent conclusions presented may leave some readers underwhelmed. For those seeking a recipe for 'doing sustainability' in outdoor education there may be disappointment. Whilst sharing some similarities, the experiences and perceptions of teacher research-collaborators are diverse and context specific. They resist being synthesised into a simplified, one-size-fits-all solution to sustainability issues. The use of bricolage also created tension in the attempt to address both critique and change. These tensions are explored below.

Tensions between and within critical and change focused methodologies

At a pragmatic level, bricolage allowed me to weave aspects of critical ethnography and participatory action research methodologies into a research approach which sought to fulfil the dual aims of critical research; critique and transformational change. As I discovered, these two aspects and accompanying methods presented several tensions. Most significantly, there was tension between my aim to meet the reciprocal and collaborative obligations of participatory action research and attempting to critique existing outdoor education pedagogies and practices through critical ethnography. Working with teachers in the research group to provide quality professional learning and development and facilitate change required effective relationships to be built. Moreover, through my commitment to reciprocity, and the epistemological implications of bricolage discussed above, I was aware of allowing teachers to implement action plans and changes which were contextually relevant to them. The maintenance of professional relationships and this reciprocal research philosophy meant that it was very difficult to engage teachers in meaningful critique of their existing outdoor education programmes and pedagogies. This was revealed in two ways. First, as discussed in a previous section of this conclusion, it was challenging to elicit thoughts and perceptions for teacher research-collaborators concerning the influence of deep cultural assumptions on outdoor education thinking and practices. Second, there are silences throughout Chapters 7 to 11 pertaining to teachers' critical self-reflection on their programmes and pedagogy. In an effort to bring about change this critical focus was pushed to the margins by both the teacher research-collaborators and myself as researcher.

These tensions present possible limitations in adopting a bricolage methodological framework and the weaving together of critical ethnography and participatory action research methods. I believe there are significant opportunities for future research which might engage in both critique of dominant educative discourses, and attempt to promote, facilitate, or stimulate transformational pedagogical change.

Some further tensions emerged, particularly within the participatory action research phases of the project. The first was maintaining a group collective given that the teacher research collaborators were spread across different educational institutions. In my planning for this project I thought that ongoing dialogue and sharing of resources and ideas could be facilitated by an innovative web-based forum. Consequently a forum site was set up by the University of Otago, School of Physical Education using PHPBB⁴⁵ software. This forum met all of my requirements and I used it to place announcements and a large number of professional readings. Unfortunately the web-based forum did not work as it seemed teacher research collaborators did not have the time or the inclination to log on regularly. This was frustrating and I resorted to the use of direct emails and phone calls to keep in touch with people. I also attempted to utilise one-pagers (see Appendix H) as a way of capturing teacher research collaborators thoughts and experiences once it became apparent the web forum was not working as well as hoped. Again these one-pagers met with limited success, due I believe, to the busy workloads of teachers, insufficient time to commit to extra tasks such as this, and the skills in writing required to do this effectively.

The second challenge I faced was getting eight busy educators together for workshops at the same time on the same day. There were occasions where one or two people could not make it to a workshop and I had to meet with them individually before or after to ensure they were included in the process. A further challenge was that I found the group needed more support and facilitation than I had originally thought. Perhaps in my naivety I had envisaged that three workshops and setting them off with an action plan would be sufficient. Clearly it was not and feedback from my research group led me to facilitate two additional workshops (three and four). I believe the addition of these workshops added to the effectiveness of the research approach as an effective means of professional learning and development and for teachers.

⁴⁵ PHPBB is an open source software packaged that can be used to set up forums and bulletin boards for groups. See <http://www.phpbb.com/>

Participatory action research as professional learning and development

One of the questions which guided this research was interested in how collaborative action research could work to provide quality professional learning and development for teachers. This subsection engages this question by drawing on teachers perceptions of the research process presented in Chapters 7 to 11 and the *Teacher Professional Learning and Development Best Evidence Synthesis Iteration* (Timperley et al., 2007). Teachers in this research overwhelmingly reported that the research approach was collaborative, reciprocal, effective at bringing about change, and effectively met aspects of their professional learning and development needs. Sophie stated that in her ten year teaching career it was the most valuable thing she had ever done. Aspects that she found particularly effective were the way the process was tailored to her specific needs and the collective relationships which were developed. Josh felt that the research process was successful in helping him to increase his understanding of sustainability and integrate this into his teaching programmes. He also expressed that developing a community of learners was highly useful. Bryn found the research process more actively engaging than “traditional models of personal development” which he perceived as “pretty passive”. He also found the collaborative and collective approach effective. Mike spoke positively about the research process as a vehicle for professional learning and development and in particular found it was “interactive”, “collaborative”, “thought provoking”, “challenging”, and “inspiring”. Rachel stated the research process was “really positive” and was more effective than some other types of professional learning and development she had participated in. The particularly positive aspects of this project she highlighted included: regular meetings and an ongoing process; quality information and stimulus provided throughout the project; opportunities to discuss ideas with other educators; opportunities to be able to put learning into practice in her own teaching.

These various aspects of the research process revealed by teacher research-collaborators are commensurate with the underlying change principles discussed in the change-model section of this conclusion. They are also consistent with the literature. As detailed in Chapter 4, Kemmis and McTaggart (2005) suggest that effective action research is participatory, practical, collaborative, reflexive, and transformative for both theory and practice. Kemmis and McTaggart also highlight the importance and power of a collective group in bringing about change through action research. It is clear for the perceptions of teachers in this project that these aims and principles which underpin participatory action research methodology have become a practical

reality. This reflects positively on the research approach adopted in this project as a means to facilitate effective change.

Evidence of effective professional learning and development from Timperley, et al. (2007) also compares favourably with the findings discussed in this thesis. In their summary of findings Timperley et al. contend that effective contexts for promoting professional learning opportunities include: extended time for opportunities to learn; effective external expertise; teachers' engagement in learning; challenging prevailing discourses; and opportunities to participate in a professional community of practice (p. xxvii). All of these aspects were present in this research project. Timperley et al. also suggested that the content of effective professional learning and development included the integration of theory and practice and the integration of pedagogical content knowledge (p. xxxii). These aspects were evident in the research process adopted here. Additionally, Timperley et al. maintain that activities within effective professional learning and development content need to provide opportunities for understandings to be discussed and negotiated as has been the case throughout the professional learning and development workshops in this research (p. xxxvi). Finally, Timperley et al. suggest that effective learning processes for teacher professional learning and development might include developing new understandings which can be either consistent with existing understandings or create dissonance with current positioning (p. xl). As discussed in the change-model section of his conclusion and particularly in Chapter 10, these learning process have been evident in this research.

It must be recognised here that substantive change in teachers' pedagogical practice is difficult (Timperley et al., 2007). Whilst teachers in this research have made some significant steps toward more sustainable approaches to outdoor education, and have spoken positively of the research process as a means of professional learning and development, there remains much work to be done in re-envisioning outdoor education pedagogy through eco-justice and sustainability. I contend that the research approach adopted in this project has been an effective way to bring about change towards educating for a sustainable future. This has potential implications for future research initiatives which also seek to engage in both critique and transformative change. This project also has implications for both theory and practice related to outdoor education and sustainability which will be summarised in the next section.

Concluding Comments: Implications for Theory, Practice, and Future Research

More than a decade into the twenty first century, it is clear that we live in uncertain times characterised by increasing social inequalities, the imminent threat of climate change, escalating environmental degradation, and growing pressure on our ecosystems to cope with the resource demands of consumer oriented societies. These environmental and social issues compel a response from all aspects of society. Consequently this project has focused on critiquing the status quo and presenting ideas for a re-envisioned outdoor education pedagogy which seeks to educate for a sustainable future. The findings and conclusions in this thesis reflect the experiences and perceptions of eight teacher research-collaborators who have contributed so significantly to this project.

Before summarising the findings presented in this concluding chapter, it is important to recognise a notable caveat. Education alone cannot solve the environmental and social issues mentioned above. Both Hamilton (2010) and Orr (2009) suggest that the response needed to address global climate change is a political one. Put succinctly, Orr (2009) argues “the crisis ahead is first and foremost a political challenge, not one of economics or technology, as important as those are. The global crisis ahead is the direct result of the largest political failure in history” (p. 6). Meanwhile, Jucker (2002) maintains that “education cannot do the job of politics” (p. 9) and to expect that pedagogical changes alone will provide sustainable solutions is naive. Jensen and Schnack (1997) too, argue that schools cannot solve political problems within society. That is not to say that education has no role in addressing both local and global environmental and social issues. It means we must place the innovations and progress teachers make in educating for a sustainable future within wider political power structures.

Notwithstanding the political dimensions of sustainability issues, I believe this thesis has provided some useful examples of pedagogical change which have implications for outdoor education theory and practice. First, this thesis has contributed to debates which place outdoor education theory and practice as contested terrain. Here, I have advocated for viewing outdoor education as a cross-curricular pedagogical approach rather than as a curriculum area with pre-set content and processes. Furthermore, I have contributed to the examination of assumptions in outdoor education through exploring how deep cultural assumptions such as anthropocentrism, individualism, technological progress, and consumerism influenced and interacted with dominant notions of outdoor education in Aotearoa New Zealand. Second, this thesis has presented a change process by which more sustainable thinking and practices can be

incorporated into outdoor education programmes and pedagogy. This included changes in teachers' philosophies, values and understandings of sustainability, shifts towards more sustainable resource use and programming, and the implementation of teaching and learning strategies which focused on sustainability issues and principles. Whilst this change model reflects the experiences of teachers in this research, I believe it may be a useful framework for educators and practitioners in outdoor education who seek to move towards more sustainable approaches. Third, this thesis has discussed and explored specific examples of how outdoor education pedagogy might be re-envisioned through sustainability principles and issues. These included: emphasising the experiential nature of outdoor education and the benefits this might have for tangible and emotional learning outcomes related to sustainability; concepts of connection to place and its implications for sustainable attitudes and behaviours; cross-curricular influences in sustainable outdoor education pedagogy, particularly education for sustainability achievement standards; and the development of action competence in both staff and students. Although contextual to the teachers in this research, I contend that these innovations provide a useful starting point for outdoor educators who seek to move towards a more sustainable pedagogy. The three areas of pedagogical change summarised here provide opportunities for future research. In particular, the investigation into students' perspectives and the impacts of sustainability focused teaching and learning on their attitudes, and behaviours and decision making would be useful.

Some gaps and constraints have also emerged in this research. First, a conceptual disparity between socio-cultural and environmental aspects in some teachers understanding of sustainability has become apparent. Moreover, a silence on social justice issues within some outdoor education programmes and pedagogy has been identified. Whilst it might be reasonable to suggest that outdoor education cannot 'do it all' and should therefore stick to environmental concerns, I would argue from an eco-justice and sustainability theoretical perspective, that it is imperative that socio-cultural and environmental/ecological issues are considered as a complex but interrelated whole. Consequently, I believe outdoor educators need to consider how socio-cultural issues are relevant to and can be addressed by their programmes and pedagogy. This remains a challenge for future research and pedagogical innovations. Second, it remains an issue to consider how sustainable actions might move beyond the distant and 'pristine', towards the local and degraded. The assumption that outdoor education takes place in remote and beautiful environments strongly influences the philosophies and practices of many programmes. To reclaim local and everyday places for outdoor education experiences and learn what it means to

live sustainably in those places and communities may take considerable effort for educators, particularly in urban environments. It is, I believe, a critical step in re-envisioning outdoor education to promote learning about and for a sustainable future. Again this has implications for future research. Third, a number of constraints to incorporating more sustainable approaches to outdoor education in secondary schools were identified. These included: institutional (school) structures and leadership, assessment focused cultures in secondary schools, and a perceived lack of appropriate sustainability focused assessment tools for outdoor education programme.

This research also has broader theoretical and methodological implications. The conceptualisation of the eco-justice and sustainability theoretical framework used in this thesis has synthesised a range of theoretical perspectives. I believe that this framework contributes to theoretical debates in the outdoor, environmental, and sustainability education fields by demonstrating how sustainability theories are linked to broader critical social and ecological theories. This framework also locates sustainability and eco-justice perspectives within a moderate oppositional postmodern position. This recognises the diversity, difference, and complexity of a postmodern world whilst maintaining a normative framework which unashamedly advocates for sustainable and just behaviours, attitudes, and actions. Methodologically, this thesis has further expanded the use of bricolage in two ways. First, it has elaborated on the epistemological and ontological positions that accompany the use of bricolage through recognising that knowledge claims are contextual and subject to multiple and complex influences. Second, it has elucidated how bricolage helped shape the way multiple research methods were woven together into a research process which met the aims of this project. This process was not unproblematic, however. As identified above, the dual aims of critique and transformative change created tensions in this research which were never fully resolved. There remain future research opportunities to explore how critical methodologies can be employed under a bricolage framework to meaningfully fulfil both critical and change focused objectives.

This research project has been one of great privilege for me. As an educator, to have the opportunity to work with a group of my colleagues to re-envision outdoor education pedagogy through eco-justice and sustainability has been an enjoyable, rewarding, and worthwhile process. The stories, experiences, and perspectives presented here are of a small group of teachers, each embedded in their own unique contexts. These cannot be easily generalised across all teachers in all New Zealand schools. Nor can they be simplified into a neat and tidy package or recipe for 'doing sustainability' in outdoor education. However, it is hoped that readers of this work will be able to take aspects of the ideas, perspectives, and experiences

presented here and apply these to their own unique contexts. I strongly believe that the ecological and social crisis the world now faces requires innovative, pragmatic, and sustainability focused change in all areas. For teachers engaged in outdoor education this may well require a reflexive re-evaluation of their pedagogical thinking and practice. As Orr (2004) articulately states, “education is no guarantee of decency, prudence, or wisdom. . . . It is not education, but education of a certain kind that will save us” (p. 8).

References

- Agger, B. (1991). Critical theory, poststructuralism, postmodernism: Their sociological relevance. *Annual Review of Sociology, 17*(1), 105-131.
- Allison, P., & Pomeroy, E. (2000). How shall we "know?" Epistemological concerns in research in experiential education. *The Journal of Experiential Education, 23*(2), 91.
- Apple, M. (2001). Comparing Neo-liberal Projects and Inequality in Education. *Comparative Education, 37*(4), 409 - 423.
- Apple, M. (2009). Global crises, social justice, and education. In M. Apple (Ed.), *Global crises, social justice, and education* (pp. 1-24). Hoboken: Routledge.
- Bell, M. (1996). Feminists challenging assumptions about outdoor leadership. In K. Warren (Ed.), *Women's voices in experiential education* (pp. 141-156). Dubuque, Iowa: Kendall Hunt.
- Bell, M. (1997). Gendered experience: Social theory and experiential practice. *Journal of Experiential Education, 20*(3), 143-151.
- Best, S., & Kellner, D. (1997). *The postmodern turn*. New York: Guilford Press.
- Biesta, G. J. J. (1998). Say you want a revolution... Suggestions for the impossible future of critical pedagogy. *Educational Theory, 48*(4), 499-510.
- Blühdorn, I. (2007). Sustaining the unsustainable: Symbolic politics and the politics of simulation. *Environmental Politics, 16*, 251-275.
- Blühdorn, I. (2011). The politics of unsustainability: COP 15, post-ecologism, and the ecological paradox. *Organization & Environment, 24*(1), 34-53.
- Blundell, S. (2006). Kaitiakitanga: Sustaining our future. *Te Karaka: the Ngai Tahu Magazine, 32*, 49-53.
- Booth, D. (2007). Sport historiography in Aotearoa/New Zealand: Playing with the past. In C. Collins & S. Jackson (Eds.), *Sport in Aotearoa/New Zealand society* (pp. 51-77). Melbourne, AUS: Thomson.

- Bowers, C. A. (1995). *Educating for an ecologically sustainable culture: Rethinking moral education, creativity, intelligence and other modern orthodoxies*. Albany: State University of New York Press.
- Bowers, C. A. (1997). *The culture of denial*. Albany: State University of New York Press.
- Bowers, C. A. (2001a). Challenges in educating for ecologically sustainable communities. *Educational Philosophy and Theory*, 33(2), 257-265.
- Bowers, C. A. (2001b). *Education for eco-justice and community*. Athens, Georgia: The University of Georgia Press.
- Bowers, C. A. (2001c). How language limits our understanding of environmental education. *Environmental Education Research*, 7(2), 141 - 151.
- Bowers, C. A. (2001d). Towards an eco-justice pedagogy. *Educational Studies*, 32(4), 401-415.
- Bowers, C. A. (2003a). Can critical pedagogy be greened? *Educational Studies*, 34(1), 11-21.
- Bowers, C. A. (2003b). *Mindful conservatism: Rethinking the ideological & educational basis of an ecologically sustainable future*. Lanham, MD: Rowan & Littlefield.
- Bowers, C. A. (2006). Silences and double binds: Why the theories of John Dewey and Paulo Freire cannot contribute to revitalizing the commons. *Capitalism, Nature, Socialism*, 17(3), 71.
- Bowers, C. A. (2008). Why a critical pedagogy of place is an oxymoron. *Environmental Education Research*, 14(3), 325 - 335.
- Bowers, C. A., & Apffel-Marglin, F. (Eds.). (2005). *Re-thinking Freire: Globalization and the environmental crisis*. Mahwah: Lawrence Erlbaum Associates.
- Boyes, M. (2000). The place of outdoor education in the health and physical education curriculum. *Journal of Physical Education New Zealand*, 33(2), 75.
- Boyes, M. (in press). Bringing wilderness home: Navigating the educative waters. In M. Abbott & R. Reeve (Eds.), *Wild heart: On the possibility of wilderness in Aotearoa New Zealand*. Dunedin, NZ: University of Otago Press.
- Breunig, M. (2005). Turning experiential education and critical pedagogy theory into praxis. *Journal of Experiential Education*, 28(2), 106-122.

- Brookes, A. (1994). Reading between the lines: Outdoor experience as environmental text. *Journal of Physical Education, Recreation & Dance, 65*(8), 26-34, 39.
- Brookes, A. (2003a). A critique of Neo-Hanian outdoor education theory. Part one: Challenges to the concept of "character building". *Journal of Adventure Education and Outdoor Learning, 3*(1), 49-62.
- Brookes, A. (2003b). A critique of Neo-Hanian outdoor education theory. Part two: "The fundamental attribution error" in contemporary outdoor education discourse. *Journal of Adventure Education and Outdoor Learning, 3*(2), 119-132.
- Brown, M. (2006). Adventure education and physical education. In D. Kirk, D. MacDonald & M. O'Sullivan (Eds.), *The handbook of physical education* (pp. 685-702). London, UK: Sage.
- Brown, M. (2008a). Comfort zone: Model or metaphor? *Australian Journal of Outdoor Education, 12*(1), 3-12.
- Brown, M. (2008b). Outdoor Education: Opportunities provided by a place-based approach. *New Zealand Journal of Outdoor Education, 2*(3), 7-25.
- Brown, M. (2009). Reconceptualising outdoor adventure education: Activity in search of an appropriate theory. *Australian Journal of Outdoor Education, 13*(2), 3.
- Brown, M. (2010). Transfer: Outdoor adventure education's Achilles heel? Changing participation as a viable option. *Australian Journal of Outdoor Education, 14*(1), 13-22.
- Brown, M., & Fraser, D. (2009). Re-evaluating risk and exploring educational alternatives. *Journal of Adventure Education and Outdoor Learning, 9*(1), 67-77.
- Callinicos, A. (1989). *Against postmodernism*. Cambridge, UK: Polity Press.
- Carspecken, P. F. (1996). *Critical ethnography in educational research: A theoretical and practical guide*. New York: Routledge.
- Cason, D., & Gillis, H. L. (1994). A meta-analysis of outdoor adventure programming with adolescents. *Journal of Experiential Education, 17*(1), 40-47.
- Chapman, D. (2003). Sustainability and our cultural myths. *Canadian Journal of Environmental Education, 9*(1), 92-108.

- Clough, P. T. (1992). Poststructuralism and postmodernism: The desire for criticism. *Theory and Society*, 21(4), 543-552.
- Codd, J. (1999). Educational reform, accountability and the culture of distrust. In M. Thrupp (Ed.), *A decade of reform in New Zealand education: Where to now?* (pp. 45-53). Hamilton, NZ: School of Education, University of Waikato.
- Codd, J. (2005). Teachers as managed professionals in the global education industry: The New Zealand experience. *Educational Review*, 57(2), 193-205.
- Cosgriff, M. (2000). Walking our talk: Adventure based learning and physical education. *Journal of Physical Education New Zealand*, 33(2), 89-98.
- Cosgriff, M. (2008). What's the story? Outdoor education in New Zealand in the 21st century. *New Zealand Physical Educator*, 41(3), 14.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, N.J: Pearson Education / Merrill Prentice Hall.
- Cronon, W. (1995). The trouble with wilderness; or, getting back to the wrong nature. In W. Cronon (Ed.), *Uncommon ground: toward reinventing nature* (pp. 69-90). New York W.W. Norton & Co.
- Davidson, L. (2001). Qualitative research and making meaning of adventure: A case study of boys' experiences of outdoor education at school. *Journal of Adventure Education and Outdoor Learning*, 1(2), 11-20.
- Denzin, N. K., & Lincoln, Y. S. (2000). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (Second ed.) (pp. 1-28). Thousand Oaks. CA: Sage.
- Denzin, N. K., & Lincoln, Y. S. (2005). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (Third ed.) (pp. 1-32). Thousand Oaks. CA: Sage.
- Eames, C., Barker, M., Wilson-Hill, F., & Law, B. (2010). *Investigating the relationship between whole-school approaches to education for sustainability and student learning*. Wellington: Teaching & Learning Research Initiative.

- Eames, C., Cowie, B., & Bolstad, R. (2008). An evaluation of characteristics of environmental education practice in New Zealand schools. *Environmental Education Research, 14*(1), 35 - 51.
- Earl, L. (2007). Foreword: International. In H. Timperley, A. Wilson, H. Barrar & I. Fung (Eds.), *Teacher professional learning and development: Best evidence synthesis iteration [BES]* (pp. vii-ix). Wellington, NZ: Ministry of Education.
- Easton, B. (1997). *In stormy seas: the post-war New Zealand economy*. Dunedin, NZ: Otago University Press.
- Faber, D. (1998). *The struggle for ecological democracy: Environmental justice movements in the United States*. New York: Guilford.
- Fien, J. (1993). *Educating for the environment: Critical curriculum theorizing and environmental education*. Geelong, AUS: Deakin University Press.
- Fien, J. (2000). 'Education for the Environment: a critique' - an analysis. *Environmental Education Research, 6*(2), 179 - 192.
- Flannery, T. F. (2005). *The weather makers: the history and future impact of climate change*. Melbourne, Aus: Text Publishing.
- Fleming, M. (1997). Critical theory between modernity and postmodernity. *Philosophy Today, 41*(1), 31.
- Foley, M., Frew, M., & McGillivray, D. (2003). Rough comfort: Consuming adventure on the edge. In B. Humberstone, H. Brown & K. Richards (Eds.), *Whose journeys?: The outdoors and adventure as a social and cultural phenomena: Critical explorations of relations between individuals, 'others', and the environment* (pp. 149-160). Penrith:UK: Institute for Outdoor Learning.
- Freire, P. (1972). *Pedagogy of the oppressed*. London: Penguin.
- Furman, G. C., & Gruenewald, D. A. (2004). Expanding the Landscape of Social Justice: A Critical Ecological Analysis. *Educational Administration Quarterly, 40*(1), 47-76.
- Gayford, C. (2003). Participatory methods and reflective practice applied to research in education for sustainability. *Canadian Journal of Environmental Education, 8*(Spring), 129-142.

- Giroux, H. A. (1983). *Theory and Resistance in Education: a pedagogy for the opposition*. South Hadley: Begin & Garvey.
- Giroux, H. A. (1988). Postmodernism and the Discourse of Educational Criticism. *Journal of Education*, 170(3), 5.
- Giroux, H. A. (2001). *Public spaces, private lives: beyond the culture of cynicism* Lanham: Rowman & Littlefield.
- Giroux, H. A. (2003). Public pedagogy and the politics of resistance: Notes on a critical theory of educational struggle. *Educational Philosophy and Theory*, 35(1), 5-16.
- Gordon, L., & Whitty, G. (1997). Giving the 'hidden hand' a helping hand? The rhetoric and reality of neoliberal education reform in England and New Zealand. *Comparative Education*, 33(3), 453-467.
- Gough, A. (1997). *Education and the environment: policy, trends and the problem of marginalisation*. Melbourne, AUS: Australian Council for Educational Research.
- Gough, A. (2007). Outdoor and environmental studies: More challenges to its place in the curriculum. *Australian Journal of Outdoor Education*, 11(2), 19-28.
- Gough, A., & Robottom, I. (1993). Towards a socially critical environmental education: water quality studies in a coastal school. *Journal of Curriculum Studies*, 25(4), 301 - 316.
- Greenwood, D. A. (2008). A critical pedagogy of place: from gridlock to parallax. *Environmental Education Research*, 14(3), 336 - 348.
- Gruenewald, D. (2003a). The best of both worlds: A critical pedagogy of place. *Educational Researcher*, 32(4), 3-12.
- Gruenewald, D. (2003b). Foundations of Place: A Multidisciplinary Framework for Place-Conscious Education. *American Educational Research Journal*, 40(3), 619.
- Gruenewald, D., & Smith, G. (2008). *Place-based education in the global age: Local diversity*. New York: Lawrence Erlbaum Associates.
- Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed., pp. 191-215). Thousand Oaks, CA: Sage.

- Haddock, C. (2007). *Education outside the classroom (EOTC) survey: Secondary schools report*. Wellington, NZ: Ministry of Education.
- Hales, R. (2006). The rise of individualism. The implications for promoting relations between self, others and the environment in outdoor education. *Australian Journal of Outdoor Education*, 10(2), 53-61.
- Haluza-Delay, R. (1999a). The culture that constrains: Experience of "nature" as part of a wilderness adventure program. *Journal of Experiential Education*, 22(3), 129-137.
- Haluza-Delay, R. (1999b). Navigating the terrain: Helping to care for the earth. In J. Miles & S. Priest (Eds.), *Adventure programming* (pp. 445-454). State College, PA: Venture.
- Hamilton, C. (2010). *Requiem for a species: Why we resist the truth about climate change*. London, UK: Earthscan.
- Hamilton, C., & Denniss, R. (2005). *Affluenza*. Crows Nest NSW, AUS: Allen & Unwin.
- Hammerman, D., Hammerman, W., & Hammerman, E. (1994). *Teaching in the outdoors* (4th ed.). Danville, IL: Interstate.
- Hardcastle, M.-A., Usher, K., & Holmes, C. (2006). Carspecken's Five-Stage Critical Qualitative Research Method: An Application to Nursing Research. *Qualitative Health Research*, 16(1), 151-161.
- Hart, P. (2002). Narrative, knowing, and emerging methodologies in environmental education research: Issues of quality. *Canadian Journal of Environmental Education*, 7(2), 140-165.
- Hart, P. (2008). Elusive participation: Methodological challenges in researching teaching and participatory learning in environmental education. In A. Reid, B. B. Jensen, J. Nikel & V. Simovska (Eds.), *Participation and learning: Perspectives on education and the environment, health and sustainability* (pp. 225-240). Dordrecht: Springer.
- Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and outward bound: Out-of-class experiences that make a lasting difference. *Review of Educational Research*, 67(1), 43.
- Heidegger, M. (1962). *Being and time*. New York: Harper & Row.

- Heilman, E. (2003). Critical theory as a personal project: From early idealism to academic realism. *Educational Theory, 53*(3), 247-274.
- Hemment, J. (2007). Public anthropology and the paradoxes of participation: Participatory action research and critical ethnography in provincial Russia. *Human Organization, 66*(3), 301-314.
- Higgins, P. (2009). Into the big wide world: Sustainable experiential education for the 21st century. *Journal of Experiential Education, 32*(1), 44-60.
- Hill, A. (2008). Towards a critical outdoor education practice. *Ki Waho: Into the outdoors, Winter*(1), 50-52.
- Hill, A. (2009a). Becoming an eco-educator: Reflections on my journey as an educator towards sustainability. *Out and About, Winter 2009*, 12-13.
- Hill, A. (2009b). Outdoor education: What are we educating for? *Ki Waho: Into the outdoors, Spring*(3), 10-13.
- Hill, A. (2010a). Connection to place as a central theme for sustainable outdoor education. *New Zealand Journal of Outdoor Education, 2*(4), 26-46.
- Hill, A. (2010b). Reflections on beliefs and practices from New Zealand outdoor educators: Consistencies and conflicts. *Australian Journal of Outdoor Education, 14*(1).
- Horfrichter, R. (2002). *Toxic Struggles: The Theory and Practice of Environmental Justice*. Salt Lake City: University of Utah Press.
- Houston, D., & McLaren, P. (2005). Response to Bowers: The 'Nature' of Political Amnesia: A Response to C.A. 'Chet' Bowers. *Educational Studies, 37*(2), 196-206.
- Huckle, J. (2008). An analysis of New Labour's policy on education for sustainable development with particular reference to socially critical approaches. *Environmental Education Research, 14*(1), 65 - 75.
- Huckle, J. (2009). Consulting the UK ESD community on an ESD indicator to recommend to Government: an insight into the micro-politics of ESD. *Environmental Education Research, 15*(1), 1 - 15.

- Humberstone, B. (1995). Bringing outdoor education into the physical education agenda: gender identities and social change. *Quest*, 47(2), 144-157.
- Humberstone, B. (2000). The 'outdoor industry' as social and educational phenomena: Gender and outdoor adventure/education. *Journal of Adventure Education & Outdoor Learning*, 1(1), 21-35.
- Humberstone, B., & Pedersen, K. (2001). Gender, class and outdoor traditions in the UK and Norway. *Sport, Education & Society*, 6(1), 23-33.
- IPCC. (2008). *Climate change 2007: Synthesis report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]*. Geneva, Switzerland: IPCC.
- Irwin, D. (2008a). Educating for sustainability: Challenges in outdoor education programmes. *Ki Waho: Into the outdoors, Winter*(1), 56-59.
- Irwin, D. (2008b). Weaving the threads: Challenges encountered while educating for sustainability in outdoor education. *New Zealand Journal of Outdoor Education*, 2(3), 36-53.
- Irwin, D. (2010a). *Weaving the threads of education for sustainability and outdoor education*. Unpublished PhD Thesis, University of Canterbury, Christchurch, NZ.
- Irwin, D. (2010b). Weaving the threads: Exploring identity through bicultural outdoor education experiences. *New Zealand Journal of Outdoor Education*, 2(4), 66-86
- Jameson, F. (1991). *Postmodernism, or, The cultural logic of late capitalism* London, UK: Verso.
- Jensen, B. B., & Schnack, K. (1997). The action competence approach in environmental education. *Environmental Education Research*, 3(2), 163 - 178.
- Jickling, B., & Spork, H. (1998). Education for the Environment: a critique. *Environmental Education Research*, 4(3), 309 - 327.
- Jones, M. (2005). Is there a disconnection between outdoor education practice and outdoor education principles? *Out and About*(13), 29-32.
- Jordan, S., & Yeomans, D. (1995). Critical Ethnography: Problems in Contemporary Theory and Practice. *British Journal of Sociology of Education*, 16(3), 389-408.

- Jucker, R. (2002). "Sustainability? Never heard of it!" Some basics we shouldn't ignore when engaging in education for sustainability. *International Journal of Sustainability in Higher Education*, 3(1), 8-18.
- Kane, M. J., & Tucker, H. (2007). Sustaining adventure in New Zealand outdoor education: Perspectives from renowned New Zealand outdoor adventurers on the contested cultural understanding of adventure. *Australian Journal of Outdoor Education*, 11(2), 29.
- Kellner, D. (2001). Afterword: Reading Giroux: Cultural Studies, Critical Pedagogy, and Radical Democracy. In H. A. Giroux (Ed.), *Public spaces, private lives: beyond the culture of cynicism* (pp. 141-164) Lanham: Rowman & Littlefield.
- Kellner, D. (2003). Toward a critical theory of education. *Democracy and Nature*, 9(1), 51-64.
- Kemmis, S., & McTaggart, R. (2005). Participatory action research: Communicative action and the public sphere. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed.). Thousand Oaks, CA: Sage.
- Kincheloe, J. (2001). Describing the bricolage: Conceptualizing a new rigor in qualitative research. *Qualitative Inquiry*, 7(6), 679-692.
- Kincheloe, J. (2005). On to the next level: Continuing the conceptualization of the bricolage. *Qualitative Inquiry*, 11(3), 323-350.
- Kincheloe, J. (2007). Critical Pedagogy in the Twenty-first Century: Evolution for Survival. In P. McLaren & J. Kincheloe (Eds.), *Critical pedagogy: where are we now?* (pp. 9-41). New York: Peter Lang.
- Kincheloe, J. (2008). *Critical Pedagogy* (Second ed.). New York: Peter Lang.
- Kincheloe, J., & McLaren, P. (2005). Rethinking critical theory and qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed., pp. 303-342). Thousand Oaks, Ca: Sage.
- Kincheloe, J., McLaren, P., & Steinberg, S. (2011). Critical pedagogy and qualitative research: Moving to the bricolage. In N. Denzin & Y. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (4th ed., pp. 163-178). Thousand Oaks, CA: Sage.
- Kolb, D. (1984). *Experiential learning*. Englewood Cliffs, NJ: Prentice Hall.

- Law, B. (2005). Education for sustainable development in New Zealand. *Applied Environmental Education & Communication, 4*(3), 277-281.
- Law, B. (2006). Education for sustainability - Koru model: Christchurch College of Education.
- Le Grange, L. (2009). Participation and Participatory Action Research (PAR) in Environmental Education Processes: For What Are People Empowered? *Australian Journal of Environmental Education, 25*, 3-14.
- Lefevbre, D. (2000). Sustainability education evaluation tool. In A. Jarnet, B. Jickling, L. Sauve, A. Wals & P. Clark (Eds.), *A colloquium on the future of environmental education in a postmodern world*. Yukon College: Whitehorse.
- Levi-Strauss, C. (1966). *The savage mind*. Chicago: University of Chicago Press.
- Low, N., & Gleeson, B. (1998). *Justice, Society and Nature: An Exploration of Political Ecology*. London, UK: Routledge.
- Loynes, C. (1999). Development training in the United Kingdom. In J. Miles & S. Priest (Eds.), *Adventure programming* (pp. 103-108). State College, PA: Venture.
- Loynes, C. (2002). The generative paradigm. *Journal of Adventure Education & Outdoor Learning, 2*(2), 113 - 125.
- Luckner, J., & Nadler, R. (1997). *Processing the experience: Strategies to enhance and generalise learning* (2nd ed.). Dubuque, IA: Kendall Hunt.
- Lugg, A. (2004). Outdoor adventure in Australian outdoor education: Is it a case of roast for Christmas dinner? *Australian Journal of Outdoor Education, 8*(1), 4.
- Lugg, A. (2007). Developing sustainability-literate citizens through outdoor learning: Possibilities for outdoor education in higher education. *Journal of Adventure Education & Outdoor Learning, 7*(2), 97-112.
- Lynch, P. (2000). Fitting in and getting on: Learning in the school of the outdoors. *Childrenz Issues: Journal of the Children's Issues Centre, 4*(2), 32-35.
- Lynch, P. (2003). The origins of outdoor education in New Zealand: Progressive liberalism and post-war rejuvenation, 1935-1965. *Journal of Physical Education New Zealand, 36*(1), 63-81.

- Lynch, P. (2006). *Camping in the curriculum*. Lincoln, Canterbury, NZ: PML.
- Malone, K. (2006). Environmental education researchers as environmental activists. *Environmental Education Research*, 12(3), 375-389.
- Martin, P. (1999). Critical outdoor education and nature as friend. In J. C. Miles & S. Priest (Eds.), *Adventure Programming* (pp. 463-471). State College Penn: Venture.
- Martin, P. (2007). Caring for the environment: Challenges from notions of caring. *Australian Journal of Environmental Education*, 23, 57-64.
- Martin, P. (2008a). Outdoor education in senior schooling: Clarifying the body of knowledge. *Australian Journal of Outdoor Education*, 12(1), 13.
- Martin, P. (2008b). Teacher qualification guidelines, ecological literacy and outdoor education. *Australian Journal of Outdoor Education*, 12(2), 32-38.
- Martin, P., & Priest, S. (1986). Understanding the adventure experience. *Journal of Adventure Education*, 3(1), 18-21.
- Martusewicz, R. A., & Edmundson, J. (2005). Social foundations as pedagogies of responsibility and eco-ethical commitment. In D. W. Butin (Ed.), *Teaching Social Foundations of Education* (pp. 71-92). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Maxted, J. (2006). Perspectives from afar: OE in Aotearoa / New Zealand. *New Zealand Journal of Outdoor Education*, 2(1), 86-89.
- Mayo, E., Henson, K., & Smith, H. (2008). *Early childhood teachers as researchers: Story as innovation, one-pagers as methodology*. Paper presented at the Seventh International Conference on Self-Study in Teacher Education Practices, Herstmonceux Castle, East Sussex: UK.
- McKenzie, M. (2000). How are adventure education program outcomes achieved?: A review of literature. *Australian Journal of Outdoor Education*, 5(1), 19-26.
- McKenzie, M. (2008). The places of pedagogy: or, what we can do with culture through intersubjective experiences. *Environmental Education Research*, 14(3), 361 - 373.
- McLaren, P. (1998). Revolutionary pedagogy in post-revolutionary times: Rethinking the political economy of critical education. *Educational Theory*, 48(4), 431-463.

- McLaren, P., & Farahmandpur, R. (2000). Reconsidering Marx in Post-Marxist Times: A Requiem for Postmodernism? *Educational Researcher*, 29(3), 25-33.
- McLaren, P., & Houston, D. (2004). Revolutionary Ecologies: Ecosocialism and Critical Pedagogy. *Educational Studies*, 36(1), 27-45.
- Miles, J., & Priest, S. (Eds.). (1999). *Adventure programming*. State College, PA: Venture.
- Millennium Ecosystem Assessment. (2005). *Ecosystems and human well-being: synthesis*. Washington, DC: Island Press.
- Ministry of Education. (1999a). *Guidelines for environmental education in New Zealand*. Wellington, NZ: Learning Media.
- Ministry of Education. (1999b). *Health and physical education in the New Zealand curriculum*. Wellington, NZ: Learning Media.
- Ministry of Education. (2007a). *The New Zealand Curriculum*. Wellington: Learning Media.
- Ministry of Education. (2007b). *Te Marautanga o Aotearoa*. Wellington: Learning Media.
- Ministry of Education. (2009a). *EOTC guidelines: Bringing the curriculum alive: learning safely*. Wellington: NZ: Learning Media.
- Ministry of Education. (2009b). SSG Education for Sustainability: Version 1 (30/11/09) [Electronic Version] from <http://seniorsecondary.tki.org.nz/Social-sciences/Education-for-sustainability>.
- Ministry of Education. (2010). Education for sustainability kete. Retrieved 4 June, 2010, from <http://efs.tki.org.nz/>
- Monbiot, G. (2007). *Heat: How we can stop the planet burning*. London, UK: Penguin Books.
- Morrow, R. A., & Brown, D. D. (1994). *Critical theory and methodology*. (Vol. 3). Thousand Oaks, California: Sage.
- Nespor, J. (2008). Education and place: A review essay. *Educational Theory*, 58(4), 475-489.
- Neumayer, E. (2003). *Weak versus strong sustainability: Exploring the limits of two opposing paradigms* (2nd ed.). Cheltenham, UK: Edward Elgar.

- New Zealand Qualifications Authority. (2010). NCEA: Environmental sustainability standards. Retrieved 4 June, 2010, from <http://www.nzqa.govt.nz/ncea/assessment/search.do?query=Environmental+Sustainability&view=achievements&level=02>
- Nicol, R. (2002a). Outdoor education: Research topic or universal value? Part one. *Journal of Adventure Education & Outdoor Learning*, 2(1), 29 - 41.
- Nicol, R. (2002b). Outdoor education: Research topic or universal value? Part two. *Journal of Adventure Education & Outdoor Learning*, 2(2), 85 - 99.
- Nicol, R. (2003). Outdoor education: Research topic or universal value? Part three. *Journal of Adventure Education & Outdoor Learning*, 3(1), 11 - 27.
- Nietzsche, F. (1968). *The will to power*. New York: Vintage.
- Nisbett, R., & Wilson, T. (1977). The halo effect: Evidence for uncounscious alteration of judgements. *Journal of Personality and Social Psychology*, 35(4), 250-256.
- O'Connell, T., Potter, T., Curthoys, L., Dymont, J., & Cuthbertson, B. (2005). A call for sustainability education in post-secondary outdoor recreation programs. *International Journal of Sustainability in Higher Education*, 6(1), 81-94.
- Olssen, M., & Peters, M. A. (2005). Neoliberalism, higher education and the knowledge economy: from the free market to knowledge capitalism. *Journal of Education Policy*, 20(3), 313 - 345.
- Orr, D. (2004). *Earth in mind: On education, environment, and the human prospect*. (10th Anniversary ed.). Washington, DC: Island Press.
- Orr, D. (2009). *Down to the wire: Confronting climate collapse*. New York: Oxford University Press.
- Park, G. (1995). *Nga Uruora: The groves of life*. Wellington, NZ: Victoria University Press.
- Park, G. (2006). *Theatre country: Essays on landscape & whenua*. Wellington, NZ: Victoria University Press.
- Parliamentary Commissioner for the Environment. (2004). *See Change: Learning and education for sustainability*. Wellington, NZ: PCE.

- Patton, M. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Pawson, E., & Brooking, T. (Eds.). (2002). *Environmental histories of New Zealand*. Melbourne, Aus: Oxford University Press.
- Payne, P. (2002). On the construction, deconstruction and reconstruction of experience in 'critical' outdoor education. *Australian Journal of Outdoor Education*, 6(2), 4-21.
- Payne, P. (2009). Framing research: Conceptualisation, contextualisation, representation and legitimization. *Pesquisa em Educacao Ambiental*, 4(2), 49-77.
- Payne, P., & Wattchow, B. (2008). Slow pedagogy and placing education in post-traditional outdoor education. *Australian Journal of Outdoor Education*, 12(1), 25.
- Peters, M., Hope, W., Webster, S., & Marshall, J. (1996). Introduction: Contextualising Social Theory. In M. Peters, W. Hope, S. Webster & J. Marshall (Eds.), *Critical Theory, Poststructuralism & the Social Context* (pp. 9-31). Palmerston North, NZ: The Dunmore Press.
- Picot, B. (1988). *Administering for excellence: Effective administration in education*. Wellington, NZ: Government Printer.
- Plumwood, V. (2002). *Environmental Culture: The ecological crisis of reason*. London, UK: Routledge.
- Priest, S. (1999). The adventure experience paradigm. In J. Miles & S. Priest (Eds.), *Adventure programming* (pp. 159-162). State College, PA: Venture.
- Priest, S., & Gass, M. (Eds.). (2005). *Effective leadership in adventure programming*. Champaign, IL: Human Kinetics.
- Prouty, D. (1999). Project adventure: A brief history. In J. Miles & S. Priest (Eds.), *Adventure programming* (pp. 93-102). State College, PA: Venture.
- Pulido, L. (2000). Rethinking Environmental Racism: White Privilege and Urban Development in Southern California. *Annals of the Association of American Geographers*, 90(1), 12-40.

- Railoa, E., & O'Keefe, M. (1999). Philosophy in practice: A history of adventure programming. In J. Miles & S. Priest (Eds.), *Adventure programming* (pp. 45-54). State College, PA: Venture.
- Rathzel, N., & Uzzell, D. (2009). Transformative environmental education: a collective rehearsal for reality. *Environmental Education Research*, 15(3), 263 - 277.
- Rea, T. (2008). Methodology in outdoor research: approaches from an alternative discourse. *Journal of Adventure Education & Outdoor Learning*, 8(1), 43 - 53.
- Richards, A. (1999). Kurt Hahn. In J. Miles & S. Priest (Eds.), *Adventure programming* (pp. 65-70). State College, PA: Venture.
- Roberts, M., Norman, W., Minhinnick, N., Wihongi, D., & Kirkwood, C. (1995). Kaitiakitanga: Māori perspectives on conservation. *Pacific Conservation Biology*, 2(1), 2-23.
- Roberts, P. (2003). Pedagogy, neoliberalism and postmodernity: Reflections on Freire's later work. *Educational Philosophy and Theory*, 35(4), 451-465.
- Robottom, I., & Sauve, L. (2003). Reflecting on participatory research in environmental education: Some issues for methodology. *Canadian Journal of Environmental Education*, 8(Spring), 111-128.
- Rozas, C. (2007). The Possibility of Justice: The Work of Paulo Freire and Difference. *Studies in Philosophy & Education*, 26(6), 561-570.
- Rush, F. (2004). Conceptual foundations of early Critical Theory. In F. Rush (Ed.), *The Cambridge Companion to Critical Theory* (pp. 6-39). Cambridge, UK: University Press.
- Sale, K. (1995). *Rebels Against the Future: the Luddites and their war on the Industrial Revolution : lessons for the computer age*. Reading, UK: Addison-Wesley Publishing.
- Seed, J. (1985). Appendix E: anthropocentrism. . In B. Devall & G. Sessions (Eds.), *Deep ecology* (pp. 243-246). Salt Lake City Gibbs Smith.
- Sewell, K. (2007). Foreword. In Ministry of Education (Ed.), *The New Zealand curriculum*. Wellington: Learning Media.
- Sharpe, F. G. (1996). Towards a research paradigm on devolution. *Journal of Educational Administration*, 34(1), 4-12.

- Sherif, B. (2001). The ambiguity of boundaries in the fieldwork experience: Establishing rapport and negotiating insider/outsider status. *Qualitative Inquiry*, 7(4), 436-447.
- Shiva, V. (2008). *Soil not oil: Environmental justice in a time of climate crisis*. New York: South End Press.
- Smith, G. (2002). Place-based education: Learning to be where we are. *Phi Delta Kappan*, 83(8), 584-594.
- Smith, G. (2008). Oxymoron or misplaced rectification. *Environmental Education Research*, 14(3), 349 - 352.
- Smith, M. (1992). Postmodernism, Urban Ethnography, and the New Social Space of Ethnic Identity. *Theory and Society*, 21(4), 493-531.
- Snook, I. (1989). *Educational reform in New Zealand: What is going on?*. Paper presented at the NZARE Conference, Trentham, Wellington, NZ.
- Soanes, C., & Stevenson, A. (Eds.). (2006) *Concise Oxford English Dictionary* (11th ed.). New York: Oxford University Press.
- Sobel, D. (1996). *Beyond ecophobia: Reclaiming the heart in nature education*. Great Barrington, MA: The Orion Society.
- Statistics New Zealand. (2009). *Measuring New Zealand's progress using a sustainable development approach: 2008*. Wellington: Statistics New Zealand.
- Sterling, S. (2001). *Sustainable education: Re-visioning learning and change*. Foxhole, Devon, UK: Green Books.
- Stevenson, R. B. (2008). A critical pedagogy of place and the critical place(s) of pedagogy. *Environmental Education Research*, 14(3), 353 - 360.
- Stewart, A. (2004). Decolonising encounters with the Murray River: Building place responsive outdoor education. *Australian Journal of Outdoor Education*, 8(2), 46-55.
- Sustainable Aotearoa New Zealand Incorporated. (2009). *Strong sustainability for New Zealand: Principles and scenarios*. Wellington, NZ: Nakedize.
- Suzuki, D. (2003). *A David Suzuki collection: A lifetime of ideas*. Crows Nest, NSW, AUS: Allen & Unwin.

- Thomas, G. (2005). Traditional adventure activities in outdoor environmental education. *Australian Journal of Outdoor Education, 9*(1), 31.
- Thrupp, M. (2001). School-Level Education Policy under New Labour and New Zealand Labour: A Comparative Update. *British Journal of Educational Studies, 49*(2), 187-212.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration [BES]*. Wellington, NZ: Ministry of Education.
- UNESCO. (2009). Bonn Declaration. Retrieved 8 June, 2010, from http://www.esd-world-conference-2009.org/fileadmin/download/ESD2009_BonnDeclaration080409.pdf
- UNESCO. (2010). UNESCO strategy for the second half of the United Nations decade of education for sustainable development. from <http://unesdoc.unesco.org/images/0018/001873/187305e.pdf>
- Walker, K. (1997). Challenging critical theory in environmental education. *Environmental Education Research, 3*(2), 155-162.
- Warren, K. (1998). A call for race, gender, and class sensitive facilitation in outdoor experiential education. *The Journal of Experiential Education, 21*(1), 21.
- Warren, K., & Loeffler, T. (2000). Setting a place at the table: Social justice research in outdoor experiential education. *Journal of Experiential Education, 23*(2), 85-90.
- Wattchow, B. (2008). Moving on an effortless journey: Paddling, river-places and outdoor education. *Australian Journal of Outdoor Education, 12*(2), 12-23.
- Wattchow, B., & Brown, M. (2011). *A pedagogy of place: Outdoor education for a changing world*. Clayton, Victoria, Aus: Monash University Press.
- Wayne, K. R., & Gruenewald, D. A. (2004). Special Issue: Ecojustice and Education. *Educational Studies, 36*(1), 6-9.
- Wilkinson, R., & Pickett, K. (2009). *The spirit level: Why greater equality makes societies stronger*. New York: Bloomsbury.
- Williams, C., & Millington, A. (2004). The diverse and contested meanings of sustainable development. *The Geographical Journal, 170*(2), 99-104.

-
- World Commission on Environment and Development. (1987). *Our common future*. Oxford, UK: Oxford University Press.
- Wurdinger, S., & Priest, S. (1999). Integrating theory and application in experiential learning. In J. Miles & S. Priest (Eds.), *Adventure programming* (pp. 187-192). State College, PA: Venture.
- Zink, R. (2003). Abseiling at 5, rafting at 10, what do we do with them when they are 15? Why pursuits might seem like an obvious choice for outdoor education? *New Zealand Journal of Outdoor Education*, 1(2), 56-62.
- Zink, R., & Boyes, M. (2006). The nature and scope of outdoor education in New Zealand schools. *Australian Journal of Outdoor Education*, 10(1), 11-21.

Appendix A: Phase One Interview Guide

November 2008

Introduction:

- Thanks for involvement.
- Introduce project and outline aims of the project.
- Emphasise collaborative and cooperative nature of project.
- Give info sheet and get consent form signed. (Talk about implications of consent)

Guiding Research Questions

1. How do deep cultural assumptions underpin and influence the thinking and practice of some New Zealand outdoor educators?
 - a) How do these assumptions enable and/or constrain eco-justice and sustainability in outdoor education programmes?
2. How can outdoor education be re-positioned to more effectively educate towards socially and ecologically just and sustainable relationships?

Key Interview Questions

Intro: Tell me about your role, your context here, your programmes etc.

Tell stories from your experiences

1. Critique: Given that this is partly a critical project.
 - a. Why have you chosen to be part of this project? What do you want to get out of it?
 - b. How do you view critique in relation to your thinking, practice and programmes?
 - c. What sort of questions do you think will be useful to ask in your critique?
 - d. Confidentiality - negotiation
2. Ascertaining the Status Quo:
 - a. What aspects of your OE practice and programmes are you really happy with?
 - b. Why? What kind of thinking, theory, or values underpin these?
 - c. What aspects of your OE practice and programmes are you unhappy with?
 - d. What changes do you want to make? Why?
3. Cultural critique
 - a. Are there cultural things that you notice in society which bother you, that you see in outdoor ed?
 - b. How does this / do these influence OE thinking and practice?
 - c. How does OE promote or resist/oppose these?

4. Social / Individualism

- a. Is OE for you about individuals or groups and communities?
- b. Do you think there is a place for addressing social justice issues in OUTDOOR EDUCATION?
- c. If so why and how? If not, why not?
- d. Does individualism enable or constrain eco-justice or education for sustainability in OE?

5. Environmental

- a. What do you think about helping students to connect with their environment and develop a sense of guardianship and care for it, through OE?
- b. Do you think OE practices and programmes use or exploit natural environments?
- c. If so why and how? If not why and how do you avoid it?
- d. How does this enable or constrain eco-justice or education for sustainability in OE?

6. Technological Progress

- a. How does technological progress influence your OE thinking, practice and programmes?
- b. Are you ever critical of technological progress?
- c. How does it enable or constrain eco-justice or education for sustainability in OE?

7. Constraints and Opportunities

- a. Within your context what are the major constraints towards incorporating eco-justice or education for sustainability in your practice and programmes?
- b. What opportunities do you see that enable eco-justice or education for sustainability in your OE practice and programmes.

Appendix B: Workshop 1 Outline

Monday 6 April

Details:

Time: 9:00am – 4:00pm

Venue: UC College of Education, Room Te Pourewa 107 (used to be called Tower Block)

What to bring:

- An open and questioning mind
- Food for a shared picnic lunch
- Your departmental / programme resources and documents, i.e. philosophy / value / vision statements, staff handbooks, course information booklets, etc.
- Copies of the readings that have been sent out.

Plan for the Day

Introduction: Intro to the workshops and group intros (I think you all know each other but it would be good to hear from each person why they are here and what they hope to get out of the project)

Activity One: Post-it note critique

Themed posters containing snippets from last year's interviews will be spread around the room with opportunities for people to add thoughts, comments, clarifications, and questions.

Morning tea break

Activity Two: Small group dialogue

Using the themed posters as a stimulus small groups (3/4 people) dialogue around particular issues and themes.

Activity Three: Large group dialogue

Discussion to draw together the thoughts from the previous two activities into the larger group.

Shared Picnic Lunch

Presentation:

"The journey towards being an eco-educator". Allen will share some thoughts from both a personal perspective and some of the theoretical underpinnings of eco-justice and education for sustainability.

Activity Four: Small group dialogue over readings.

This is a chance to share any thoughts or questions you may have had from the readings that have been sent out. If you haven't had a chance to get into the readings this will be an opportunity to find out a bit more about them.

Afternoon Tea

Activity Five: Small group critique of your own programmes & practices.

This is a chance to share with a couple of other people things about your programmes or practice that you may want examined or changed. It is also a chance for you to ask critical questions of each other. This is particularly relevant to thinking about the development of your action plans in workshop 2.

Wrap up:

With the whole group summarise the day and talk about what the goals and intentions are for workshop 2 on Friday 1 May.

PLEASE NOTE:

If you have suggestions for something that you would like to see included in either workshop please let me know. I want the workshops to be as collaborative and useful for you as possible. I am more than happy to make changes to accommodate people's suggestions.

I am looking forward to a great day with you all. Once again thanks for making the time and commitment to be part of this project. It is very much appreciated.

Kind regards

Allen

Appendix C: Collaborative activity poster example

Examining Cultural Assumptions in Outdoor Education – Individualism



Umm, you know, I think with outdoor ed, there's, there's sort of this focus on developing the individual. Yeah, but I, there is actually developing the individual socially as well and co-operatively with others and it's a natural extension to actually look beyond your own group and what effect you're having on people everywhere.



You know buying food as a group you know to actually get them working together doing their menus and buying enough food to help each other out, you know that can even be a struggle. Because at times you see some of them resorting to 'this is too difficult I'll just go and get my own food and then I'll know I'll be ok' mm.

I think outdoor ed actually resists it (individualism) and it gives the opportunity, it can, it can give the opportunity to show quite a different model and it depends how it's facilitated because if you take an outdoor recreation, an outdoor activity approach, then it does become really individualised but if you take an outdoor education approach and you take a, a personal and group approach to what you're doing, that in fact, the group being together and supporting each other is what's important, umm, you end up with a very different result.

**I: Do you see outdoor ed as you know contributing or resisting concepts of self interest or a bit of both?*

*P: There's a bit of both I think, you know cause you can use outdoor ed to build community you know and we do it here we try and build a little community

**I: This idea of individualism and self interest. Do you ever feel like outdoor ed contributes to that?*

*C: Um. That's a curly one. Yes in the sense of we're encouraging them to develop certain skills, you know become more of an individual... But then again no because we are trying to teach them, especially in our environment that you have to work as a team and to somehow get all of the personalities and all of the wants gelled together to come out with a safe positive outcome.

Talking about individuals, individual strengths, individual roles in the group, how they change, where they're positive, when it's not so positive, individual strengths.

Yeah, I think personal development's dangerous (laughs)... Umm, I, I don't think, I don't think the world is, is a better place for personal development and individual development. I think umm, there's a lot more focus today, well, it's all about me... So I, in some ways, I see our society, you know, that perhaps, yeah, the focus on the individual and, isn't the best

So students I guess at times are very much in that survival of myself you know and what am I going to do to keep myself dry or warm etc and sometimes you have to teach them or encourage them to assist others you know

*I: how do you see outdoor ed's relationship with that individualism? Do you see outdoor ed as trying to resist it or do you see outdoor ed actually contributing to that or a bit of both?

*P: Umm, I think it could. You know, it depends, you know, who's, who's, I mean, you do, there is, there is a focus there which I don't think is necessarily positive... The focus on the individual and individual development and, you know, broadening your, your horizons and all of that sort of stuff whereas I think there's umm, there is equally, a large amount of value in social co-operation and working together, getting on... And actually being prepared to give up something of yourself for others

I think we can make more of, of collective responsibility within our programmes rather than focussing on, you know, an individual who leads a group, for example.

Appendix D: Workshop One Presentation

Research Workshop 1
Monday 6 April
Plan For Today

- Activity One: Post-it note critique

Morning tea break

- Activity Two: Small group dialogue
- Activity Three: Large group dialogue

Shared Picnic Lunch

- Sharing personal journey & a few thoughts

- Activity Four: Readings walk & talk + dialogue

Afternoon Tea

- Activity Five: Small group critique of your own programmes.
- Wrap up:

Influences On New Zealand Outdoor Education

Kincheloe (2007)
Giroux (2003)

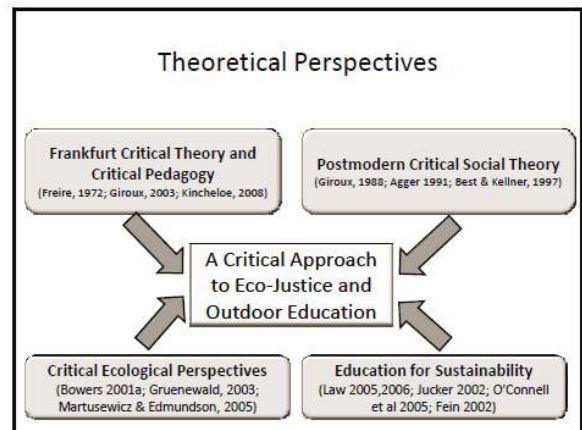
- Neo-liberal influences on education internationally
 - Education strongly influenced by privatised market system promoting individualism, corporate management, consumerism and inequality
- Historical perspectives on New Zealand outdoor education
 - Teachers have involved students in outdoor learning experiences for more than one hundred years
 - “Tomorrows Schools” educational reforms in the 1980’s placed increasing pressure on outdoor education
 - Increasingly outdoor education became synonymous with outdoor pursuit activities
 - Disjuncture with environmental education develops

Boyes (2000)
Lynch (2006)

New Zealand Outdoor Education – Dominant Discourses

Zink & Boyes (2006)
Zink (2003)
Brown (2006)
Alison & Pomeroy (2000)
Payne & Wattochow (2008)
Gough (2007)
Lugg (2007)
O’Connell et al. (2005)

- Personal and social development
- Adventure pursuit activities
- Challenge and the risk / safety relationship
- Some environmental care and concern
- Anthropocentric and individualistic tendencies
- Counter-Narrative
 - Influence of sustainability education on outdoor education theory and practice



An Eco-Justice and Sustainability Perspective That Challenges the Status Quo

- Concerned with educational and social change towards more socially and ecologically sustainable ways of living
- Seeks to identify and critique deep cultural assumptions
- Committed to critique and transformative change
- Is local and context specific
- Becomes a pedagogy of responsibility
- Privileges living in ways that place community, social justice and ecological sustainability ahead of growth, profit, accumulation, and consumption

Bowers (2001a, p.3)

“Any definition of social justice that does not take account of how human demands on the natural environment are affecting the lives of future generations is fundamentally flawed. Indeed it seems incomprehensible to write about social justice for women, minorities and the economic underclass without considering ways in which the Earths ecosystems are being rapidly degraded.”

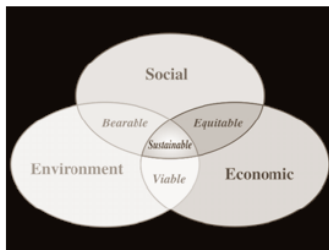
Hill (2008)

“Outdoor educators employing an eco-justice based pedagogy of responsibility must engage in a reflexive process. This process challenges dominant discourses in society and the associated messages to youth, such as consumerism, individualism, anthropocentricism, and complete buy-in to new technologies. They must also involve students in learning how to live in ecologically and socially sustainable and appropriate ways. This opens students’ eyes to a different way of viewing the world, helping them to use a critical lens, and empowering them to take action.”

Sustainability, Sustainable development, and EFS

- Sustainability is current, fashionable, and contested.
 - Sustainability has been regarded as both an important but unfocused concept like "liberty" or "justice" and as a feel-good buzzword with little meaning or substance. The idea of sustainable development is sometimes viewed as an oxymoron because development inevitably depletes and degrades the environment
- “Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs” (Bruntland Report, 1987)

Weak Sustainability

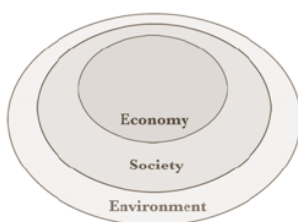


Scheme of sustainable development: at the confluence of three constituent parts. Author, Johann Dréo. Retrieved from http://en.wikipedia.org/wiki/Sustainable_development, 31 July, 2008.

Weak Sustainability

- Weak Sustainability is not concerned about the form in which the stocks of capital (man made, natural and human) are passed to future generations.
- As long as future generations obtain stocks of capital not less than those of the present generation, the conditions of sustainable development are satisfied even if this is done at the expense of reducing natural capital .

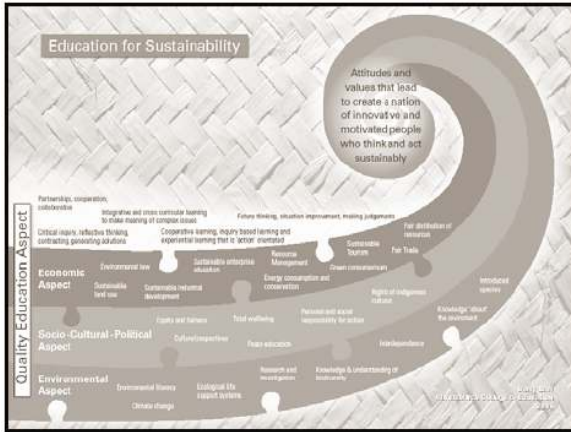
Strong Sustainability



Pearce et al. 1994

Strong Sustainability

- Strong sustainability requires that the stocks of natural capital (ecological assets) should not decrease over-time
- This is mainly because natural capital is associated with ecological assets, which are non-substitutable, and very essential for the welfare and survival of human beings.
- Natural capital refers to natural resources like freshwater, soil, forests, fish, the ozone layer, the climate system, ecosystem services and functions, species richness, genetic diversity, and units of cultural significance.



Ecological Literacy

Berkowitz, Ford, & Brewer, (2005, p. 228)

Martin (2008, p.35)

Orr (1992, p. 87)

- Ecological literacy has been defined as “the ability to use ecological understanding, thinking and habits of mind for living in, enjoying, and /or studying the environment”.
- At a simplistic level, ecological literacy, or its shorthand *ecoliteracy*, means to be literate in our practices and knowledge of the interconnectedness of life on earth
- “Real ecological literacy is radicalizing ... it leads to a revitalization and broadening of the concept of citizenship to include membership in a planet-wide community of humans and living things.”

Ecological Literacy in Practice

Martin (2008, p. 37)

Peter Martin suggests an ecologically literate student;

- Is comfortable outdoors and seeks encounters with nature for recreation and health
- Has the knowledge and skills to safely and enjoyably explore nature while minimizing impact
- Has a well developed understanding and sense of place from both personal experience and academic investigation
- Understands and values interrelatedness between humans and nature (systems thinking);

Ecological Literacy in Practice

Martin (2008, p. 37)

- Nourishes community and connections to place
- Has a deeply *felt concern, even love, for the well-being of the Earth and all living things* (Stewardship)
- Maintains sustainable environmental beliefs and practices informed by principles of ecology, critical thought, judgement and action.

Appendix E: Workshop 2 Outline

Friday 1 May

Details:

Time: 9:00am – 4:00pm

Venue: Addington Coffee Co-op board room, 297 Lincoln Rd

What to bring:

- Money for a cafe lunch
- Your departmental / programme resources and documents, i.e. philosophy / value / vision statements, staff handbooks, course information booklets, etc etc
- Laptops and other resources that you may use in you action planning

Plan for the Day

Introduction: Talk about the outcomes and goals for the day.

Guest speaker: Dave Irwin, Lecturer in OE @ CPIT

Dave will share some thoughts on his personal journey as an educator moving towards sustainability and his experiences of action research in his soon-to-be-completed PhD.

Guest Speaker: Jane Ellis, owner of Earth Sea Sky clothing

Jane will share some thoughts on their philosophy / values that drive their business. E.g. Why do they care about manufacturing in New Zealand and the ethical issues surrounding that? Why do they care for the environment? Etc.

Morning Tea

Presentation: Action research – what is it all about

Allen will share some thoughts on the process of action research and the tools associated with it.

Activity One: Action Planning.

This is time for you to get started with developing your action plans.

Lunch

Guest Speaker: Faye Wilson-Hill, Adviser Education for Sustainability, UC Education Plus

Faye will share some thoughts on support and resources for teachers working with EFS. This will be a good networking opportunity also.

Activity Two: Action Planning

Continue to work on action plans.

Afternoon Tea

Wrap Up:

Where to from here – Implementing your action plans. Web based forum and support needs.

The EONZ national AGM is on at 5pm (not sure of venue in Christchurch). We will be finished with plenty of time to get to the AGM if you are thinking of going. It might be nice to grab a drink and dinner afterwards if people are up for it.

Once again thanks for making the time and commitment to be part of this project. It is very much appreciated.

Kind regards

Allen

Appendix F: Workshop 2 Presentation

Research Workshop 2
1 May, 2009
Plan for the day

- Introduction
- Guest speaker: Dave Irwin, Lecturer in OE & Sustainability @ CPIT
- Guest Speaker: Jane Ellis, owner of Earth Sea Sky clothing

Morning Tea

- Presentation: Action research – what is it all about
- Activity One: Action Planning.

Lunch

- Guest Speaker: Faye Wilson-Hill, Adviser Education for Sustainability, UC Education Plus
- Activity Two: Action Planning

Afternoon Tea

- Wrap Up:
Where to from here – Implementing your action plans. Web based forum and support needs.

Participatory Action Research
Key Concepts

1. PAR is a Social Process:
 - Recognises relationships between individuals and the social context.
2. PAR is participatory:
 - Engages people in examining their understandings, skills, & values.
 - Individuals conduct studies on themselves.
3. PAR is practical and collaborative:
 - Engages people in examining social practices together and then taking action to make change.

Participatory Action Research
Key Concepts

4. PAR is emancipatory:
 - Explore how people & ecosystems are constrained by wider social (cultural, economic, political) structures.
 - Explore how to intervene to overcome these constraints.
5. PAR is critical:
 - Process where people set out to contest and reconstitute irrational, unproductive or unjust *social media* (language, discourses).
 - Examining the role power plays in the way people relate and work.
6. PAR is reflexive:
 - Deliberate process where people aim to transform practices through cycles of critical and self-critical action and reflection.

Action Research Spiral

“In reality the process is likely to be more fluid, open, and responsive. The criterion of success is not whether participants have followed the steps faithfully but rather whether they have a strong and authentic sense of development and evolution in their *practices*, their *understandings* of their practices, and the *situations* in which they practice” (Kemmis & McTaggart, 2005).

Developing Action Competence
(Jensen & Schnack ,1997)

“The concept of action competence includes the capacity to be able to act, now and in the future, and to be responsible for ones actions.”

- There are increased tendencies to equate action with behavioural change in the educational context.
- There is an important difference between action and behavioural change

Action = a conscious making up of ones mind which is not necessarily the case with a behavioural change which can be forced or pressured.

Developing Action Competence
(Jensen & Schnack ,1997)

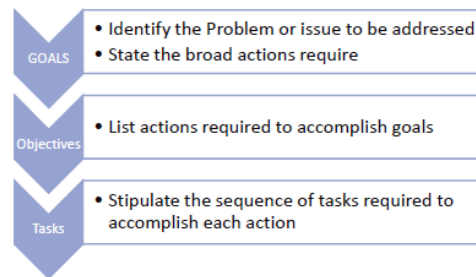
Activity solely as a counterweight to academic tuition	People pushed to do something People involved in deciding what to do
Activity targeted at solving the problem	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;"> <p style="text-align: center; margin: 0;">ACTION</p> </div>

Aspects of Action Competence

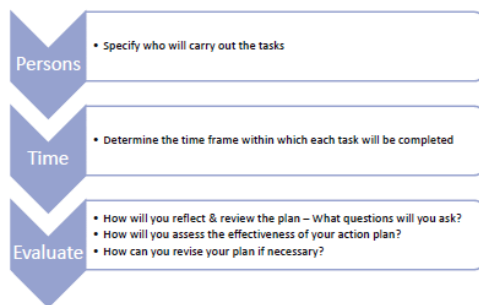
(Jensen & Schnack ,1997

- Knowledge/insight: acquiring a coherent knowledge in the field – what are the problems, how did they arise, & what possible solutions exist?
- Commitment: Motivation, drive, assertiveness
- Visions: what might things look like in the future as a result of action?
- Action experiences: Benefits of taking concrete action – Actions must be authentic.

Getting Down To Action



Getting Down To Action



Challenges for us

- Workload of teachers – Busy-ness of teaching
- Isolation of teachers – silos
- Apathy / resistance from School management / other staff
- Apathy / resistance from students
- Lack of resources

Through a collective effort we can overcome or minimise the effects of these challenges.

“Authentic change, and the empowerment that drives it and derives from it, requires political sustenance by some kind of collective... It [is] a mistake not emphasise sufficiently that power comes from collective commitment” (Kemmis & McTaggart, 2005)

Appendix G: Workshop Three Outline

Thursday 6 Aug

Details:

Time: 1:00pm – 4:30pm

Venue: Addington Coffee Co-op board room, 297 Lincoln Rd

What to bring:

- Stuff you have been thinking about / working on for your action planning etc.
- A 'one-pager' on how being involved in this research project has impacted on you thus far. Please see below for information on 'one-pagers'

Plan for the Afternoon

- Cup of coffee and catch up
- Presentation / Talk: 'Outdoor Education: What are we educating for' (by Allen – I tried to get Barry Law but he was booked up – you will have to settle for second best I'm afraid)
- Share and Talk time: Opportunity for each person to share what is happening with them in their schools / college with particularly reference to actions / ideas / initiatives which have been stimulated through this project
- Share and Talk time: Share one-pagers (see below)
- The change process – If we have time I would like us to spend a small amount of time thinking and talking about the following questions.
 - As educators how do we make change to our own thinking and pedagogy?
 - At what level does change take place, i.e. at level of beliefs and values, level of practice and programme, or both.
 - What are the parts of PD that make the most impact on you – lectures, in school PD programmes, collaborative workshops, professional reading, action research, etc.

One-Pagers

This is an idea I have picked up from Chris J as a way to help clarify peoples thinking and writing and capture some of the research process for each person. I had hoped the web based forum would capture this process but it has not. A one-pager is different from a personal journal or diary in that it is collaborative and designed to be shared and create dialogue.

I have attached a one-pager about 'one-pagers'. Please read it to understand a bit more what they are about and as an example. My reservation about using one-pagers with you is the possible workload issue for people who already have very demanding jobs.

Having said that, it is only one page and I would like us to give it a go. For the next workshop could you please try to write a one-pager on how being involved in this research project has impacted on you thus far.

Once again thanks for making the time and commitment to be part of this project. It is very much appreciated.

Cheers

Allen

Appendix H: 'One-pagers' as a data collection method

By Allen Hill – 24 July, 2009

One-pagers are a form of concise writing that can be used in a number of ways in a research process. This one pager outlines the rationale for one-pagers and suggests reasons why they may be useful in my PhD project.

Working with teachers in a change-based collaborative research methodology such as participatory action research presents a number of challenges. It involves interaction over a reasonable length of time – in my case 12 to 16 months – and requires significant input into the professional development process for teachers. Capturing their experiences, thoughts, comments, and questions over this time frame has proved to be problematic. Teachers are incessantly busy people and it is difficult for them to find time to record their involvement in the research process. I initially had hoped that an online web-forum would serve as a conduit and place where teachers could articulate and share their experiences. This has unfortunately been a spectacular failure with my research collaborators struggling to use the forum. My initial thoughts on this are that there are generational and cultural factors which make interacting either by face-to-face or phone more preferable to a web-based electronic medium for this group of people (30-50 yrs of age)

Consequently I have been searching for an appropriate way for teachers to record their experiences of the process. Chris, one of my research collaborators, suggested I look at using 'one-pagers', an idea he had started to use in his PhD action research. Through reading a small amount of literature on 'one-pagers' I believe they could well help with one of the challenges of this type of research (although it is by no means the 'magic answer').

One-pagers were developed as a data gathering method by University of Canterbury academic Elaine Mayo with Kidsfirst Kindergarten teachers Kay Henson and Helen Smith. One-pagers involve writing one page about an idea, collection of related ideas, or a discussion point. They are generated when key ideas begin to synthesise and connections are made to other learning (Mayo, Henson, & Smith, 2008). There are few structural rules with one-pagers except limiting their length to one page. There are however a number of functions in the research process that they can fill.

According to Mayo, Henson, & Smith (2008) one-pagers fulfil four functions. First, they are an effective communication tool through the clarifying and sharing ideas and building collective knowledge and understanding. Second, they serve as a reflective tool for teachers and researchers providing opportunity to develop fresh insight and questions. Third, they encourage the development of confidence in writing with the clarity, concision, and purpose. Fourth they are an excellent way to respond to and capture key ideas from professional reading.

One-pagers differ from personal reflective journals in that they are a collaborative exercise which always invite a response. Adrienne Roberts (cited in Mayo et al., 2008, p. 11) suggested they "begin a collaborative process of enquiry that is open-ended". In this sense they allow

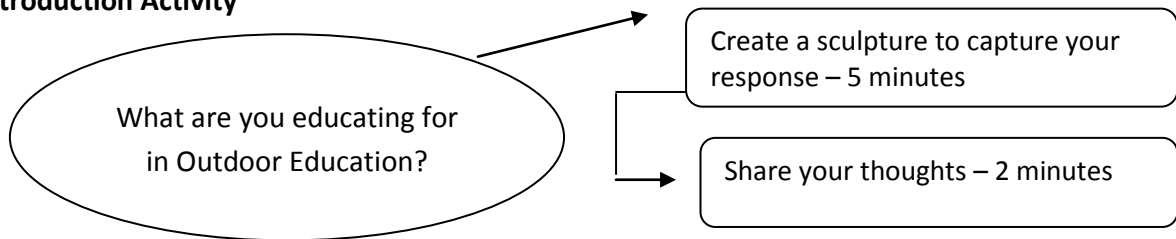
research partners to welcome and absorb critique and to adjust and adapt thinking. Consequently one-pagers must be underpinned by values of respect and integrity.

As a communication and reflective tool, one-pagers are useful and accessible to all partners in a research process. They enable a research group to build a body of data that demonstrates both personal and collective learning. I believe one-pagers may therefore, offer real opportunities for capturing the experiences of teachers who are challenging the status quo and re-envisioning outdoor education through sustainability and eco-justice.

Appendix I: Workshop 3: Research Group Handout

Thursday 6 Aug – Outdoor Education: What Are We Educating For?

Introduction Activity



Pick up on key points

- Diversity of views
- Influenced by a whole range of factors, i.e. personal experience, beliefs and values, system, other people, etc

For me there are 2 key questions.

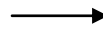
1. Is education about reinforcing or continuing the status quo?
2. Is education about making change?

Where is New Zealand society at in terms of sustainable development?

Snapshot indicator from the report, Statistics New Zealand (2009) *Measuring New Zealand's progress using a sustainable development approach*. –See handout

Assumptions that underpin how we approach these questions

Education = good – the more of it the better



We need to question this assumption

Some quotes from David Orr (2004) p. 5, 7,8, 12

“The conventional wisdom holds that all education is good and the more of it one has, the better... The truth is that without significant precautions, education can equip people merely to be more effective vandals of the earth. If one listens carefully, it may even be possible to hear the Creation groan every year in late May when another batch of smart, degree holding, but ecologically illiterate, *Homo sapiens* who are eager to succeed are launched into the biosphere.”

“The truth is that many things on which our future health and prosperity depend are in dire jeopardy: climate stability, the resilience and productivity of natural systems, the beauty of the natural world, and biological diversity. It is worth noting that this is not the work of ignorant people. Rather it is largely the results of work by people with BAs, BSs, LLBs, MBAs, and PhDs.”

“It is a matter of no small consequence that the only people who have lived sustainably on the planet for any length of time could not read, or like the Amish do not make a

fetish of reading. My point is simply that education is not guarantee of decency, prudence, or wisdom. More of the same kind of education will only compound our problems. This is not an argument for ignorance but rather a statement that the worth of education must now be measured against the standards of decency and human survival – the issues now looming so large before us in the twenty-first century. It is not education, but education of a certain kind, that will save us.”

“The plain fact is that the planet does not need more successful people. But it does desperately need more peacemakers, healers, restorers, storytellers, and lovers of every kind. It needs people who live well in their places. It needs people of moral courage willing to join the fight to make the world habitable and humane. And these qualities have little to do with success as our culture has defined it.”

Henry Giroux (2003)

“In opposition to the corporatizing of public schools, progressive educators need to define public and higher education as a resource vital to the democratic and civic life of the nation... Schools should provide students with possibilities for linking knowledge and social responsibility to the imperatives of a substantive democracy. Education is not training, and learning at its best is connected with the imperatives of social responsibility and political agency. The latter view points to defending public and higher education as vital democratic spheres necessary to develop and nourish the proper balance between public values and commercial power, between identities founded on democratic principles and **identities steeped in forms of competitive, self-interested individualism that celebrate selfishness, profit-making, and greed.**”

Functions of Education (Sterling, 2001)

- Socialisation – replicate society and culture
- Vocational – train people for employment
- Liberal – Develop individuals potential
- Transformative – Encourage change towards a fairer society and better world / planet

Quote from Sterling (2001) p. 14

The term ‘sustainable education’ implies whole paradigm change, one which asserts both humanistic and ecological values. By contrast any ‘education *for something*’, however worthy, such as for ‘the environment’, or ‘citizenship’ tends to become both accommodated and marginalized by the mainstream. So while ‘education for sustainable development’ has in recent years won a small niche, the overall educational paradigm otherwise remains unchanged. Within this paradigm, most mainstream education *sustains unsustainability* – through uncritically reproducing norms, by fragmenting understanding, by sieving winners and losers, by recognising only a narrow part of the spectrum of human ability and need, by an inability to explore alternatives, by rewarding dependency and conformity, and by serving the consumerist machine. In response, we need to *reclaim* and authentic education which recognises the best of past thinking and practice but also to *re-vision* education and learning to help assure the future.”

Barry Law (2005)

“Education requires a deeper critique and a broader vision to ensure a sustainable future. Thus, a whole system redesign needs to be considered to challenge existing frameworks and shift our thinking beyond current practice and towards a sustainable future”

What about Outdoor Education ?

Summary of traditional or mainstream OE - Read Payne & Watchow (2008)

“Traditionally, mainstream or *modern* outdoor education has focused on certain outdoor activities and pursuits, preoccupied itself with notions of adventure and challenge, touched on the paradox of risk and safety, and emphasised the human, or anthropocentric, benefits of personal and social development by being immersed in the outdoors”.

Re-envisioning Outdoor Education

Should all aspect of outdoor education be linked somehow to educating for a sustainable future?

Is personal and social development valid in this paradigm?

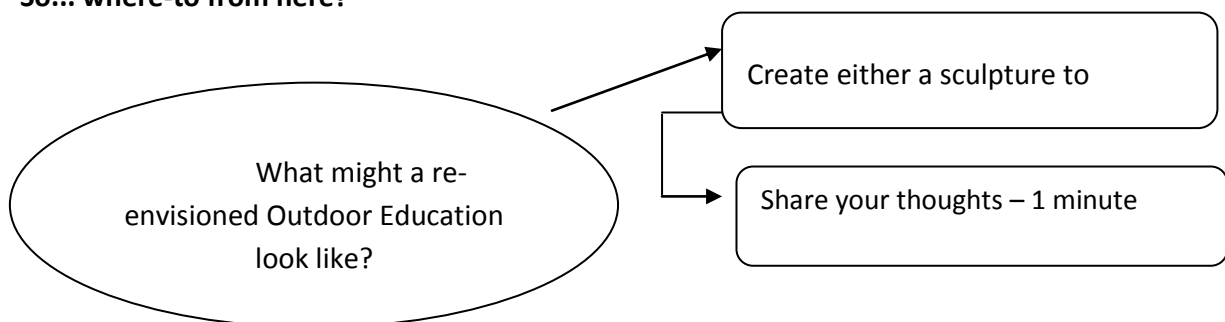
Is Critical awareness and Ecological literacy Key?

Is connectedness to community and natural environments key?

Alison Lugg (2007, p. 106) argues that outdoor education is ideally placed to educate students towards sustainable relationships and the connectedness that comes with them, stating:

“This notion of ‘connectedness’ is critical to understanding ecological perspectives of the world and of sustainable ways of living in and with the world. Outdoor education, unlike many other forms of ‘indoor education’ is in a unique position to offer experiences to that may engender awareness and understanding of human connectedness to other forms of ‘nature’”.

So... where-to from here?



Appendix J: Information Handout for Workshop Three

Where is New Zealand society at in terms of sustainable development?

Statistics New Zealand (2009) *Key findings on New Zealand's progress using a sustainable development approach: 2008*

Snapshot from key indicators

The definition of sustainable development used in this report is:

- Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
- Sustainable development means ensuring that well-being is at least maintained over time. The principle of fairness within and between present and future generations should be taken into account in the use of environmental, economic, and social resources.
- Putting these needs into practice requires living within the limits of the natural environment.

Key

✓ = The result is in line with the target trend (towards sustainable development).

X = The result is opposite to the target trend (away from sustainable development).

– = There is no overall trend (in terms of sustainable development the result is neutral).

How well do we live?

Sustainable development means that everyone is entitled to meet their needs through the accumulation and use of resources.

Table A1

How well do we live – summary of key indicators	
<ul style="list-style-type: none"> • 10.2 Unemployment rate: – Annual rate is little changed from 1987 after peaks in 1992 and 1998. The rate fell from 2002–07 but rose again to 4.2% in 2008. 	–
<ul style="list-style-type: none"> • 12.1 Real gross national disposable income: – Since 1992 average income has steadily increased. 	✓
<ul style="list-style-type: none"> • 13.1 Health expectancy at birth: – Between 1996 and 2006, health expectancy increased, but there are gender and ethnic disparities. 	✓
<ul style="list-style-type: none"> • 14.2 Rate of death from assault: – Between 1987 and 2005, the rate of deaths by assault per 100,000 people decreased but there was little change since 2000. 	✓

How well are resources distributed?

Sustainable development means that important resources such as income, education, health, and clean air are fairly distributed or accessible.

Table A2

How well are resources distributed – summary of key indicators	
<ul style="list-style-type: none"> 10.8 Access to early childhood education, by ethnicity – Since 2000, the gap in participation rates in early childhood education by different ethnic groups narrowed. 	✓
<ul style="list-style-type: none"> 12.3 Income inequality – Between 1988 and 2007, income inequality between households with high incomes and households with low incomes widened. 	✗
<ul style="list-style-type: none"> 12.4 Population with low incomes – The proportion of the population recognised as having low incomes has risen since the early 1980s. 	✗

How efficiently are we using our resources?

Sustainable development means that our production and consumption of resources must be managed in a way that minimises the impact on the environment.

Table A3

How efficiently are we using our resources – summary of key indicators	
<ul style="list-style-type: none"> 3.4 Greenhouse gas intensity of the economy – Although total emissions have increased the intensity of emissions in relation to the economy has decreased. 	✓
<ul style="list-style-type: none"> 6.2 Energy intensity of the economy – The energy intensity of the economy has decreased since 1995. 	✓
<ul style="list-style-type: none"> 10.4 Labour productivity – Since 1985, labour productivity has increased an average of 2.2% per year. 	✓

NOTE: Total emissions of greenhouse gases increased, the economy grew at a faster rate, meaning fewer emissions were produced per unit of GDP.

The labour force was more productive, meaning more output per worker (and implying an increase in the efficiency and competitiveness of the economy).

What are we leaving behind for our children?

Sustainable development means preserving economic, environmental, and social resources not only for the present generation but also for future generations.

Table A4

What are we leaving behind for our children – summary of key indicators	
<ul style="list-style-type: none"> • 2.2 Distribution of selected native species: - Since the 1970s, the distribution of all seven indicator species has continued to decline. 	X
<ul style="list-style-type: none"> • 3.1 Net greenhouse gas emissions: - New Zealand's net greenhouse gas emissions have grown since 1990, although there has been little change since 2002. 	X
<ul style="list-style-type: none"> • 4.2 Nitrogen in rivers and streams: - Levels of nitrogen at monitored river and stream sites have increased since 1989. 	X
<ul style="list-style-type: none"> • 10.5 Educational attainment of the adult population: - The proportion of adults with at least secondary qualifications has increased between 1990 and 2008. 	✓
<ul style="list-style-type: none"> • 11.1 Real net stock of total assets per person: - Net capital stock per person rose 29% from 1988–2008. 	✓
<ul style="list-style-type: none"> • 15.1 Speakers of te reo Māori: - The proportion of Māori able to hold an everyday conversation in Māori language decreased slightly between 1996 and 2006. 	—

Appendix K: Workshop Four Outline

Sustainability Toolbox – Tuesday 27 Oct

Details:

Time: 1:00pm – 4:00pm

Venue: Underground Espresso Bar – 791 Colombo St

Purpose of the Workshop

The purpose of this workshop would be to develop and share practical ideas, activities, initiatives, or games that help us to educate for a sustainable future. This is about developing a toolbox to help our teaching and learning practice.

Plan for the Afternoon

- Cup of coffee and catch up
- Food for thought: To get us started I will present some of my current thinking around this toolbox along with a few things we have been trying with our students down here at PE School.
- Share and Talk time: Opportunity for each person to share practical ideas that they may have heard about, read, made up or tried. My hope is that these activities are somehow related to sustainability and outdoor education. Some maybe things you have tried as part of your action plan.

We will have my supervisor/mentor/colleague, Mike Boyes with us for the afternoon which is just great. He is keen to collaborate and contribute to the discussion in any ways that we need. Mike has many years experience in education at secondary and tertiary level and brings a wealth of experience, a broad perspective, and a great deal of humility to the table. It will be fantastic to have him with us.

What to bring:

- Practical ideas to start building the toolbox.
- An open mind and a willingness to think outside the square and be innovative and creative.

Once again thanks for making the time and commitment to be part of this project. It is very much appreciated. The coffee's on me.

Cheers

Allen

Appendix L: Workshop Four Handout

Sustainability Toolbox – Tuesday 27 Oct

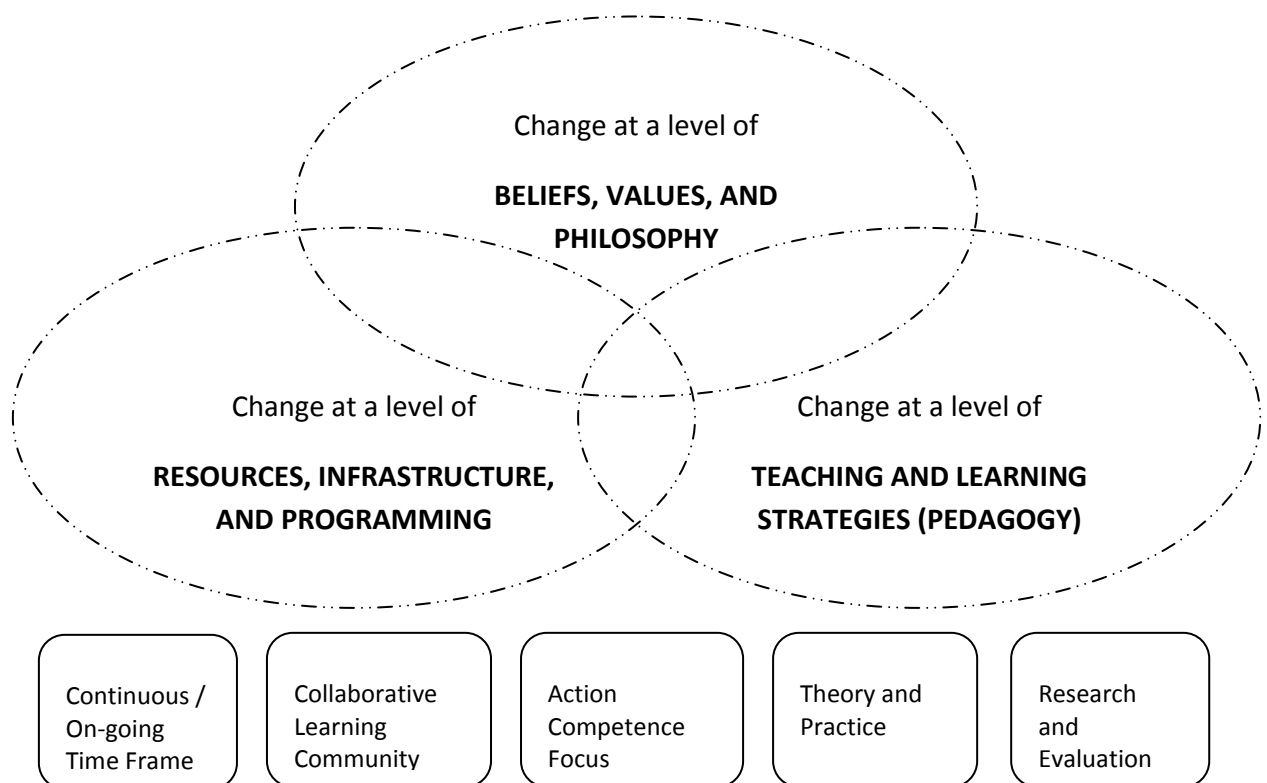
Purpose of the Workshop

The purpose of this workshop would be to develop and share practical ideas, activities, initiatives, or games that help us to educate for a sustainable future. This is about developing a toolbox to help our teaching and learning practice.

The Process of Change: From Outdoor Education to Educating Outdoors

I have been thinking about how working with educators can best bring about change towards a sustainability / eco-justice framework. My thinking is still in development stage but below is a model which may capture where my thoughts are at. I would appreciate your comments and thoughts on this.

Facilitating Educator Change in Outdoor Education Towards Eco-justice and Sustainability



I have yet to develop these ideas fully and integrate them with literature particularly the Teacher Professional Learning and Development: Best Evidence Synthesis (Timperley et al., 2007).

Consider this quote regarding teacher professional development from Timperley et al. (2007, p. xxv),

What is known to be effective, however, is not always what is practiced. For example, it is generally accepted that listening to inspiring speakers or attending one-off workshops rarely changes teacher practice sufficiently to impact on student outcomes. Yet, at least in the United States, this type of activity is the predominant model of professional development⁴. The popularity of conferences and one-day workshops in New Zealand indicates that it is not too different in this country.

For further information see the handouts with summary overviews from the Teacher Professional Learning and Development: Best Evidence Synthesis (Timperley et al., 2007).

The focus for this workshop is developing a toolbox of ideas to practically re-envision outdoor education within an eco-justice and sustainability framework. This is change at the level of 'Teaching and Learning Strategies (Pedagogy)'. Change at this level is important but I believe it lacks power if it is not preceded or accompanied by change at the level of 'Beliefs, Values, and Philosophy'. This is the level we have been mostly operating at this year – I believe it is now time to get our hands dirty with the practicality of sustainability in outdoor education.

Five Ideas to Put Into Practice

Humble Activities with Minimum Consumption (low risk, low cost, low tech, resourcefulness & craft)



A plant evolution timeline



Harakeke Flowers



Natural resources kite building



Personal reflection and craft

Connecting to Place



Activity – students read a short history of this area and create a sculpture to represent that history.

Creating Space for Reflection and Dialogue



Do you belong or are you just a visitor?

- Transforming a beautiful tramping experience into a significant reflective experience and dialogue
- Asking key questions at opportune moments and creating the space for dialogue and reflection

Living Well



- Living well means embracing principles of sustainability and eco-justice. (This is not Leave-No Trace)
- Challenging students about what it means to ‘live well’ both in natural outdoor environments and in their everyday urban environments.
- Empowering students to take action, during outdoor education experiences and while at home.

Embracing ‘Other’ Ways of Knowing – Tikanga Māori



Learning about Harakeke harvest



Waiata with hand crafted rakau

Appendix M: Summary Workshop Outline

Monday 14 December

Details:

Time: 1:00pm – 4:00pm

Venue: Underground Espresso Bar – 791 Colombo St

Purpose of the Workshop

The purpose of this workshop is to share our thoughts and experiences of the year and consider a number of questions about how the project has impacted on our values, thinking and teaching practice. It is also an opportunity to consider the future – where do you see outdoor education heading and how can groups of educators work together towards a sustainable future?

Plan for the Afternoon

- Cup of coffee and catch up
- Share and Talk Time: Below is a series of questions, which are themed, that hopefully will spur your thinking prior to the workshop. We may use a variety of methods to consider these.

Research / Professional Development Process

- In what ways did this project provide professional development for you?
- What are your thoughts on the process? Was it reciprocal and collaborative? Was it effective? What were the strengths and weaknesses?
- Were you able to implement your action plan or make change through this process?

The Projects Influence on You

- How has the project influenced / affected your values, philosophies, and knowledge?
- How has the project influenced / affected your programmes, resource use and infrastructure?
- How has the project influenced / affected your teaching and learning practices / strategies?
- How much progress do you think you have made at incorporating eco-justice and sustainability principles into your programmes and practices?
- What things have enabled or constrained this process for you?

The Projects Influence on Your Students

- How do you think this project has impacted on your students learning? Give examples.

Future Directions

- What is your vision for outdoor education in the future?
 - How can outdoor educators support each other and work together to educate towards a sustainable future?
- I would also like to talk briefly about contributions you could make together to conferences and publications such as Out and About.

What to bring:

- Your ideas and experiences of the project. Some ideas about where to from here
- Copies of any of the materials / outputs etc that you may have developed this year as a result of this project. (I fully realise many of you have a large number of inputs and influences in this area and my role this year may have been relatively minor or was complementing or adding to other influences.)

Once again thanks for making the time and commitment to be part of this project. It is very much appreciated. The coffee's on me.

Cheers

Allen

Appendix N: Final Interview Guide

December, 2009

Purpose of the Interviews

The purpose of the interviews is to consider a number of questions about how the project has impacted on teacher research collaborators' values, thinking and teaching practice. It is also an opportunity to consider the future – where do they see outdoor education heading and how can groups of educators work together towards a sustainable future?

Theme 1: Research / Professional Development Process

- In what ways did this project provide professional development for you?
- What are your thoughts on the process? Was it reciprocal and collaborative? Was it effective? What were the strengths and weaknesses?
- Were you able to implement your action plan or make change through this process?

Theme 2: The Projects Influence on You

- How has the project influenced / affected your values, philosophies, and knowledge?
- Describe your understanding of sustainability and eco-justice? How do you think it relates to outdoor education? What are the strengths and weakness of trying to incorporate sustainability into outdoor education?
- How has the project influenced / affected your programmes, resource use and infrastructure?
- How has the project influenced / affected your teaching and learning practices / strategies?
- How much progress do you think you have made at incorporating eco-justice and sustainability principles into your programmes and practices?
- What things have enabled or constrained this process for you?

Theme 3: The Projects Influence on Your Context

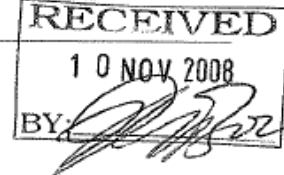
- How do you think this project has impacted on your students learning? Give examples.
- How has this project impacted on your colleagues?
- How has the project impacted on your wider school community?

Theme 4: Future Directions

- What is your vision for outdoor education in the future?
- How can outdoor educators support each other and work together to educate towards a sustainable future?

Appendix O: University of Otago Ethics Approval

Reporting Sheet for use **ONLY** for proposals considered at departmental level



Form devised May 1995; updated May 1997; June 1998; May 1999; Dec 2000; June 2002

ETHICAL APPROVAL AT DEPARTMENTAL LEVEL OF A PROPOSAL INVOLVING HUMAN PARTICIPANTS (CATEGORY B)

PLEASE read the important notes appended to this form before completing the sections below

NAME OF DEPARTMENT: School of Physical Education

TITLE OF PROJECT: Challenging the Status Quo – Incorporating Eco-justice
into New Zealand Outdoor Education

PROJECTED START DATE OF PROJECT: 11 November, 2008

STAFF MEMBER RESPONSIBLE FOR PROJECT: Dr Mike Boyes & Dr Mark Falcous

NAMES OF OTHER INVESTIGATORS OR INSTRUCTORS: Student: Allen Hill

BRIEF DESCRIPTION OF THE PROJECT:

Purpose of the Project

The aim of this project is to gather together a group of outdoor educators (both secondary and tertiary) to work collaboratively towards critiquing and challenging current thinking and practice in outdoor education and implement new ideas, based on eco-justice, through action research.

Project Details

It is hoped the project will run over a twelve month timeframe, starting in October / November 2008 through until the same time in 2009. The project will be based in Christchurch and has four phases.

Reporting Sheet for use ONLY for proposals considered at departmental level

Phase One: Time spent with each group member individually in their place of work to get a picture of their current thinking and practice. A critical ethnographic methodology will be used for this phase and the start of phase two. Collection of research information will be via observation, casual conversation, semi-structured interviews, and textual analysis of curriculum documentation.

Phase Two: Bringing the group together to work collaboratively on 2 tasks; 1) looking critically at our thinking and practice, 2) developing action plans to implement change to our practice. Participatory action research methodology will be employed for phases two – four.

Phase Three: Group members putting their action plans into practice – sharing reflections, thoughts, frustrations, and successes via an online web-based forum site.

Phase Four: A reflection and evaluation phase comprising 2 parts; 1) completing an individual qualitative reflection. 2) Group debrief which gives members the opportunity to share their experiences with the group.

DETAILS OF ETHICAL ISSUES INVOLVED:

What is Expected of Group Members?

- ✓ A willingness to critically examine their thinking and practice, challenge the status quo, and try out new ideas.
- ✓ A commitment to work collaboratively with members of the group.
- ✓ A time commitment to: two group meetings in the year, some professional development reading, and implementing a change based action plan in their place of work (this can be as big or small as people like).
- ✓ A willingness to have the research facilitator spend a day or two in their place of work.
- ✓ A willingness to have the information that comes out of the project used in a thesis document and other publications and presentations (confidentiality will be negotiated by the group).

Ethical Considerations

- ✓ The purpose and aims of the inquiry along with requirements such as, approximate dates, amount of time, and work that might be required in each phase will be outlined to research collaborators via both email and covering letter formats.

Reporting Sheet for use ONLY for proposals considered at departmental level

- ✓ Consent will be gained from the research collaborators through a signed consent form.
- ✓ The confidentiality of research collaborators will be negotiated by group consensus. Given the emancipatory aims of this research project it may be beneficial for research collaborators to be identified in the findings and any subsequent publications. This identification could contribute to the status and kudos of the research collaborators as recognition of their participation in a critical change project. If the research group decides confidentiality is needed then identities will be hidden through the use of pseudonyms. Given the collaborative nature of this project there may be situations where a combination of research collaborator identification and confidentiality may be appropriate. These situations will be negotiated in the research group. In making decisions on confidentiality issues, open, honest communication regarding all possible uses of information (thesis, journal and magazine publications, conference presentations etc) is required for research collaborators to make informed decisions,
- ✓ Collaborators will be able to withdraw from the project at any time for any reason. It would be appreciated if they communicate this with the research group.
- ✓ All original research information, e.g. interview recordings, notes, action plans, transcripts, and electronic sources will be kept for six months after the completion of the thesis and then either returned to research collaborators or destroyed.

ACTION TAKEN

- | | | | |
|-------------------------------------|--|--------------------------|---|
| <input checked="" type="checkbox"/> | Approved by Head of Department | <input type="checkbox"/> | Approved by Departmental Committee |
| <input type="checkbox"/> | Referred to University of Otago Human Ethics Committee | <input type="checkbox"/> | Referred to another Ethics Committee
Please specify: |

DATE OF CONSIDERATION:

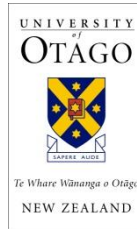
10/11/08

Signed (Head of Department):



Please attach copies of any Information Sheet and/or Consent Form

Appendix P: Project Information Sheet



Challenging the Status Quo: Re-Envisioning Outdoor Education in Aotearoa New Zealand through Eco-justice and Sustainability

Project Information Sheet – October 2008

Thank you for expressing an interest in joining the collaborative research and professional development project I am facilitating as part of my PhD thesis at the University of Otago. This info sheet provides details of this project.

Personal Statement

As an outdoor educator I am personally involved in this project, always thinking critically about my own practice along with everyone else. My values and beliefs around eco-justice, environmental sustainability, social justice and wanting to see change in the way we construct outdoor education experiences and programmes strongly influence this project.

Purpose of the Project

The aim of this project is to gather together a group of outdoor educators (both secondary and tertiary) to work collaboratively towards critiquing and challenging current thinking and practice in outdoor education and implement new ideas, based on eco-justice and sustainability, through action research.

Project Details

I want the project to run over a twelve month timeframe, starting in November / December 2008 through until the same time in 2009. The project will be based in Christchurch and has three phases.

Phase One: Time spent with each group member individually in their place of work to get a picture of their current thinking and practice.

Phase Two: Bringing the group together to work collaboratively on 3 tasks; 1) looking critically at our thinking and practice, 2) developing action plans to implement change to our practice, 3) Group members putting their action plans into practice – sharing reflections, thoughts, frustrations, and successes via an online web-based forum site.

Phase Three: A reflection and evaluation phase comprising 2 parts; 1) completing individual qualitative reflection and interview, 2) having a group debrief which gives members the opportunity to share their experiences with the group.

What is Expected of Group Members?

- ✓ A willingness to critically examine your own thinking and practice, challenge the status quo, and try out new ideas.
- ✓ A commitment to work collaboratively with members of the research group.
- ✓ A time commitment to: Four or five research group meetings / workshops in the year, some professional development reading, and implementing a change based action plan in your place of work (this can be as big or small as people like).
- ✓ A willingness to have myself spend some time with you in your place of work.
- ✓ A willingness to have the information that comes out of the project used in my thesis and other publications and presentations (ethics and confidentiality will be negotiated by the group).

What's in It for You?

- ✓ Increasing your depth and width of knowledge in outdoor education and related areas of eco-justice, and education for sustainability.
- ✓ A chance to work collaboratively with a group of outdoor educators in the Christchurch area and develop good relationships with these people.
- ✓ Opportunity to be involved in cutting edge research and professional development – status and kudos.
- ✓ A free lunch.

Ethical Considerations

- ✓ Consent: Please sign and date the attached consent form.
- ✓ Confidentiality: The confidentiality of research collaborators will be negotiated by group consensus. Given the emancipatory aims of this research project it may be beneficial for research collaborators to be identified in the findings and any subsequent publications. This identification could contribute to the status and kudos of the research collaborators as recognition of their participation in a critical change project. If the research group decides confidentiality is needed then identities will be hidden through the use of pseudonyms. Given the collaborative nature of this project there may be situations where a combination of research collaborator identification and confidentiality may be appropriate. These situations will be negotiated in the research group. In making decisions on confidentiality issues, open, honest communication regarding all possible uses of information (thesis, journal and magazine publications, conference presentations etc) is required for research collaborators to make informed decisions.
- ✓ Withdrawal from the project: You will be able to withdraw from the project at any time for any reason. It would be appreciated if they communicate this with the research group.

- ✓ Research Information: All original research information, e.g. interview recordings, notes, action plans, transcripts, and electronic sources will be kept for six months after the completion of the thesis and then either returned to research collaborators or destroyed. Note: The security of electronically transmitted information cannot be guaranteed. Caution is advised in the electronic transmission of sensitive material.

Questions

If you have any questions please call or email (contact details below).

Supervisors for this project are Mike Boyes and Mark Falcous from the School of Physical Education, University of Otago. They can be contacted as below if you have further questions.

Dr Mike Boyes

Ph: 03 479 9056

Email: mike.boyes@otago.ac.nz

Dr Mark Falcous

Ph: 03 479 8944

Email: mark.falcous@otago.ac.nz

Regards

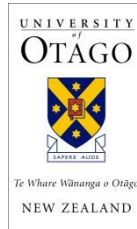
Allen Hill

School of Physical Education, University of Otago

Ph (hm): 03 4676149 Ph (office): 03 4798426

Email: allen.hill@otago.ac.nz

Appendix Q: Consent Form



Challenging the Status Quo: Re-Envisioning Outdoor Education in Aotearoa New Zealand through Eco-justice and Sustainability

Consent Form – October 2008

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:

1. My participation in the project is entirely voluntary;
2. I am free to withdraw from the project at any time without any disadvantage;
3. The research information (audio-tapes, notes, documents, and electronic sources) will be destroyed or returned to research collaborators at the conclusion of the project. Any information on which the results of the project depend may be retained in secure storage for five years, after which it will be destroyed;
4. I understand that confidentiality of research collaborators will be negotiated by group consensus. In making informed decisions on confidentiality issues, open, honest communication regarding all possible uses of information will be provided.
5. The results of the project will be used in the submission of a thesis document, may be published in journals or professional magazines, and may be used for conference or other presentations.
6. I understand that reasonable precautions have been taken to protect data transmitted electronically but that the security of the information cannot be guaranteed.

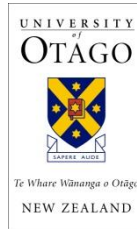
I agree to take part in this project.

(Name of research collaborator)

(Signature of research collaborator)

(Date)

Appendix R: Letter to Principals



Challenging the Status Quo: Re-Envisioning Outdoor Education in Aotearoa New Zealand through Eco-justice and Sustainability

Letter to Principals

10 February 2009

To

Principal

Your School

PO Box ???

Christchurch

Dear ...

We are writing to seek your support for a collaborative research and professional development project which involves one of your staff members, [your name]. The project, which has been granted ethical approval, is part of PhD research at the School of Physical Education, University of Otago. The following details briefly outline the project.

Purpose of the Project

A group of educators (both secondary and tertiary) have been invited to work as collaborative partners; critiquing their experiences of outdoor education practice. This critique is guided by principles of sustainability and eco-justice. It offers educators opportunities to re-envision their outdoor education practices and programmes through action research.

It is anticipated that the collaborative nature of this project will provide partner-educators with opportunities to increase their knowledge of educating for sustainability and eco-justice. The research group, consisting of nine partner-educators from educational institutions in Canterbury offers the benefits of a small learning community.

Project Details

Initial interviews with partner educators took place in late 2008, as phase one of the project. There are two further phases which take place throughout 2009.

Phase Two: Collaborative workshops;

Workshop One (Late Term 1): Focus group looking critically at current outdoor education and sustainability thinking and practice.

Workshop Two (Term 2): Focus group development of action research plans to implement change in practice and programmes.

Workshop Three: Implementation of action plans in partner-educators teaching programmes.

Phase Three: Evaluation of action plans through personal reflection and partner-educator workshop.

Workshop Four (Term 4): Focus group discussion, debrief and evaluation.

Your support for [your name] in this project would be appreciated through providing professional development time for her to attend the three one-day workshops outlined above. The specific dates for these workshops are still being negotiated with partner-educators to find suitable times for all.

In anticipation of your support for this project we thank you. The incorporation of sustainability principles into outdoor education teaching and learning is an important development. The involvement of your staff and school in this research project demonstrates a commitment to improving pedagogy and addressing significant social, political, and environmental issues.

If you have any questions please feel free to contact us by phone or email.

Regards

Allen Hill
Principal Researcher
PhD Candidate
University of Otago
Ph: 03 4798378
allen.hill@otago.ac.nz

Dr Mike Boyes
Senior Lecturer/Supervisor
University of Otago
Ph: 03 4799056
mike.boyes@otago.ac.nz

Dr Mark Falcous
Senior Lecturer/Supervisor
University of Otago
Ph: 03 4798944
mark.falcous@otago.ac.nz

Appendix S: Adventure Education Questionnaire (Bryn)

Summary of responses, Term 2 2010

Do you think you have gained anything from participation in the Adventure programme? **Yes (16) / No**

If you gained anything, write a list of the gains you have made.

- Life experience
- Outdoor/nature skills (5).
- Experienced outdoor activities that you normally would not do/I didn't expect (2).
- Tried new stuff
- Will to do stuff/try things even though they may not sound too promising (2)
- Prepare before you go – proper clothes.
- Helping and staying together in a group/teamwork is important (3)
- Got over myself (long walk up the mountain)/ Not afraid of heights anymore (2)/Learned to act against my fear – like doing something I couldn't do before (2).
- Know what I'm capable of
- Confidence/a better opinion about going in the outdoors (2). I didn't understand my father when he thought it would be so exciting to go for a walk or some outdoor stuff but you can do so much in the outdoors. Now I can understand him better than before!!
- Having fun just being outdoors
- I am thinking a bit more about recycling (2) and my food got a little bit healthier than it was in Germany.
- Greater connection with the environment/nature (2)
- Enjoyed/better view/knowledge/value/respect of the environment/nature/landscape (5).
- Knowledge about now days and former NZ nature (2)
- Know a lot of new places (4)
- Learn about other cultures and respect
- Made closer friends (7), had a lot of fun (5).
- Improved my English with other internationals
- I loved to do crazy or a bit dangerous stuff e.g. walking a loop track that was flooded with water or having a coasteer in between high waves.
- Organise myself/make things by myself
- Being alright with just a tent

One thing we hope you gain through our activities is a greater connection with the natural world.

Have your thoughts and feelings about nature changed?

Yes (14)/ No (2)

If your thoughts and feelings have changed, describe how.

- I feel more comfortable in nature/outside than before (2).
- I started thinking more about plants trees and landscape. I really started to enjoy and think about nature.
- I've learned to enjoy nature and respect it, trying not to do any harmful actions to it. More I find peace when everything is silent
- I think now that computer games and stuff are also sometimes nice but a nice outdoor day is now way better than that. I have done outdoor stuff before but not something like this.
- It is now a greater feeling to go into nature because you know now what to do without destroying something and have fun too.
- Now I feel closer and I know all the good things that this "natural world" has to offer and I have learned how to enjoy the most of it.
- My image of nature is more beautiful.
- I can enjoy just a beautiful view or love to go for a walk just because the sun is shining. I look more at the nature around me and have more respect of it.
- Nature was just plants for me, with adventure education that changed. With the camps I saw that simple rubbish can change the whole environment of the place, and we have to take it off. It made me more conscious.
- I think it means more to me than before, because I came from a big city. I respect the nature more. For example don't throw my rubbish somewhere and stop others who are doing it.
- I'm from a big city that is known for being dirty. Since I got here I do not even dare to spit my chewing gum on the street. That's probably because New Zealand showed me how beautiful a country can be and you don't want to destroy that. Another factor is that Mr Leslie and Mr Ashton kept telling us how important it is to keep your environment clean.

How would you rate these gains against others you may have listed above? Put a × on the continuum.

Very significant _____ *Not significant*
at all

x xx xx x x x x x x x x x

List any activities you participated in that most effectively caused these changes.

- Sea kayaking to Quail Island (overnight) (4)
- Week long trips - West Coast etc.(7)
- Overnight trips
- Glentui canyoning
- Coastering/cliff jumping (7) (The feeling of jumping from a cliff, I can't explain, is just amazing)

- Waterfall showers
- Planting trees
- Surfing
- Caving
- Climbing (3)
- Visiting places of beauty
- Tramping/ the long walks through the forest/mountains/beaches (5)
- Camping (2)
- Snowboarding
- Antarctic Centre visit (2)
- Willowbank Wildlife Reserve visit

Do you think changes in your connection with the natural world will change the way you act in future? **Yes (13)/ No (1)**

If you think your future actions will change, describe how.

- It will be more important for me to spend time in nature outdoors e.g. going walking in the bush/mountains/do more camps (4).
- Enjoy peaceful environments
- I will use more options in nature. The Adventure Education Programme (ADE) showed more things to do in nature than I have ever done before....since I did ADE I think that nothing (or nearly nothing) can beat activities in nature.
- Waste minimizing/recycling (4)
- I'll teach my brothers and kids how beautiful the environment is.
- If I go to the forest stay on the path.
- It will change a lot because where I live I don't have this connection that I have had here in NZ. So all I lived here open my mind to this...and to know how important it is.
- My perspective of the world, animals, plants, rubbish, friends, all of it will become more important
- Think more about/respect the natural environment when I do something (2)
- I think I will be a bit more responsible and take more care of not polluting/waste nature/mess my environment (3).
- I'll use my bike more.
- I'll pay attention where I put my rubbish and how I treat my environment as well as the people around me because it's great to get support.