



THE UNIVERSITY OF  
**WAIKATO**  
*Te Whare Wānanga o Waikato*

Research Commons

<http://researchcommons.waikato.ac.nz/>

## Research Commons at the University of Waikato

### Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

**Intersections between place-responsive outdoor education  
and environmental action: Transforming secondary  
students' ethic of care into action.**

A thesis

submitted in partial fulfilment  
of the requirements for the degree

of

**Master of Sport and Leisure Studies**

at

**The University of Waikato**

by

**Joanne Martindale**



THE UNIVERSITY OF  
**WAIKATO**  
*Te Whare Wānanga o Waikato*

**2017**



## **Abstract**

There has been growing concern expressed about the disconnection of people, and particularly young people, from nature. This detachment from the natural world is visible through media and movies with an increased reference to the urban, human-made environment since the 1950's. Additionally, it is observable in our overuse of the Earth's resources and slow change to more sustainable behaviour. The cost of this disconnection from nature is on our physical and psychological well-being. It reduces appreciation and attachment to place. This study looks at connecting secondary students to their place through a place-responsive outdoor education journey and explores how the journey can influence their developing ethic of care for place.

Place-responsive outdoor education is one way to potentially connect and 're-wild' our school students to their place and nature. Through this, they may develop an ethic of care. There is then an assumption that by developing an ethic of care and responding to place, people will take action to look after or improve their place. However, little research has been conducted to date to show that there is a link between attachment to place and pro-environmental behaviour or taking action. The second part of this research explored how any potential ethic of care developed from the place-responsive outdoor education journey could be transformed into motivation for students to act for place, by adapting the place-responsive outdoor education journey to incorporate environmental advocacy sessions using Birdsall's (2010) model for learning about environmental action.

This research uses a phenomenography approach to study the experiences of a group of secondary school students engaging in a place-responsive outdoor education journey and their responses to the journey. Twelve students came on the journey and six of these participated in the study. Data were gathered using photo-elicitation interviews based on photographs the students took during the place-responsive outdoor education journey. The students then attended a series of environmental

advocacy sessions based on the journey to help them reflect and consider what response they might make to their experiences. A second interview was then held with each student after these sessions to explore their perceptions of an ethic of care leading to action. Data in the form of interview transcripts and observational notes were analysed and thematically organised.

The first part of the study highlights the significance of a slow pedagogy to the place-responsive outdoor journey and the enjoyment by the students. Contextual factors like the weather had an impact on the students. The journey also emphasised the importance of community and social interaction for the students. At the end of the place-responsive outdoor education journey, the students expressed a sense of accomplishment and a deeper connection to the city, realising it was more than just shopping malls.

The students indicated great enthusiasm and motivation to take action as the environmental advocacy sessions began. The students decided to use a voting system to decide on the final action to take, which led to some students disengaging at this point as they may not have seen the relevance to them of the specific action chosen. For many of the students, other priorities and pressures made them feel too busy to have the time to take action. The findings indicate that students who have had repeat visits to place have a stronger connection to it and suggest this is a predictor of them continuing to taking action or display pro-environmental behaviour in response to their experiences.

## **Acknowledgements**

I sincerely thank my supervisors Dr Mike Brown and Dr Chris Eames for guiding and mentoring me through this wonderful and tumultuous journey. To Dr Mike Brown, thank you for providing your guidance, support and thoughtful advice in the first half of this research. To Dr Chris Eames, thank you for agreeing to take me on as a student. You challenged me to be better by maintaining a critical eye on my work, offering incredible support and guidance. It has been a privilege to work under both of you.

My Husband, Andy, thank you with all my heart for your unwavering support and belief in me. You have been my rock and always willing to listen or read something.

Mam, thank you for just being there on the other end of the phone or Internet. You listened to the frequent conversations about my research, read different sections and given me endless support.

A special thank you to all the wonderful community members and organisations, whose participation made this research possible. I felt inspired hearing the stories, knowledge and passion you shared with the students and privileged to have met you all.

Finally, thank you to the school, teacher and students who took part in this study. It was an honour to join your journey Backyard Adventure and learn from you all.



# Table of Contents

|  |            |
|--|------------|
| <b>Abstract</b> .....  | <b>iii</b> |
| <b>Acknowledgements</b> .....  | <b>v</b>   |
| <b>Table of Contents</b> .....   | <b>vi</b>  |
| <b>Figures</b> .....   | <b>ix</b>  |
| <b>1. Introduction</b> .....   | <b>1</b>   |
| 1.1 Overview .....   | 1          |
| 1.2 Rationale .....  | 1          |
| 1.3 Background .....   | 2          |
| 1.4 Research question .....  | 4          |
| 1.5 Thesis outline .....   | 4          |
| <b>2. Place-responsive outdoor education, sustainable action and an ethic of care</b> .....              | <b>7</b>   |
| 2.1 Background (Setting the scene) .....   | 8          |
| 2.2 Place-responsive outdoor education .....   | 11         |
| 2.3 Implementation of a place-responsive pedagogy in a New Zealand context .....                         | 15         |
| 2.4 Education for sustainability .....   | 17         |
| 2.5 Education for sustainability in New Zealand schools .....  | 19         |
| 2.5.1 Education <i>in</i> the environment .....  | 19         |
| 2.5.2 Education <i>about</i> the environment .....   | 21         |
| 2.5.3 Education <i>for</i> the environment .....   | 21         |
| 2.6 Teaching EfS in schools .....  | 23         |
| 2.7 Intersections between place-responsive outdoor education and EfS .....                               | 25         |
| 2.7.1 Place attachment leading to environmental action .....   | 27         |
| 2.7.2 Pro-environmental behaviour (PEB) compared to environmental action .....                           | 28         |
| 2.7.3 Place attachment and pro-environmental behaviour (PEB) .....                                       | 29         |
| 2.7.4 Linking place-responsive outdoor education, environmental education and environmental action ..... | 30         |
| 2.8 Theoretical framework .....  | 32         |
| 2.9 Chapter summary .....  | 33         |
| <b>3. Methodology</b> .....  | <b>35</b>  |
| 3.1. Methodological approach .....   | 35         |
| 3.2 Qualitative interviews .....   | 38         |
| 3.3 Method - photo-elicitation interview .....   | 41         |
| 3.4 Participant observation .....  | 43         |
| 3.5 Research design .....  | 43         |
| 3.5.1 Participants .....   | 43         |
| 3.5.2 Research trip .....  | 44         |
| 3.5.3 Environmental advocacy sessions .....  | 46         |
| 3.6 Interviews and observation .....   | 46         |
| 3.6.1 Interview 1 .....  | 46         |
| 3.6.2 Interview 2 .....  | 47         |
| 3.6.3 Observation .....  | 48         |
| 3.7 Data Analysis .....  | 49         |
| 3.8 Research Quality .....   | 50         |
| 3.9 Ethical Considerations .....   | 50         |
| 3.9 Summary .....  | 51         |

|   |            |
|---|------------|
| <b>4. Findings.....</b>   | <b>53</b>  |
| <b>4.1 Introduction .....</b>   | <b>53</b>  |
| <b>4.2 Place-responsive journey.....</b>  | <b>53</b>  |
| 4.2.1 Exploration of local places .....   | 54         |
| 4.2.2 Formation of Community.....   | 58         |
| 4.2.3 Local issue awareness.....  | 59         |
| 4.2.4 Reflection of journey .....   | 62         |
| 4.2.5 Summary of place-responsive journey.....  | 63         |
| <b>4.3 Environmental action .....</b>   | <b>65</b>  |
| 4.3.1 Learning about action .....   | 66         |
| 4.3.2 Learning through action .....   | 67         |
| 4.3.3 Learning from action .....  | 69         |
| 4.3.4 Action competence .....   | 71         |
| 4.3.5 Summary of environmental action .....   | 73         |
| <b>4.4 Case Stories.....</b>  | <b>76</b>  |
| <b>4.4 Summary of findings .....</b>  | <b>80</b>  |
| <b>5 Discussion and Conclusion .....</b>  | <b>83</b>  |
| <b>5.1 Introduction .....</b>   | <b>83</b>  |
| <b>5.2 Discussion of findings.....</b>  | <b>83</b>  |
| 5.2.1 How does a place-responsive outdoor education journey influence an<br>‘ethic of care’ in secondary students? .....                            | 83         |
| 5.2.2 How does any ‘ethic of care’ developed from a place-responsive<br>outdoor education journey motivate students to act to care for place? ..... | 88         |
| 5.2.3 A revised model of findings .....   | 91         |
| <b>5.3 Limitations .....</b>  | <b>93</b>  |
| <b>5.4 Conclusion.....</b>  | <b>93</b>  |
| <b>5.5 Recommendations and Implications.....</b>  | <b>94</b>  |
| <b>References .....</b>   | <b>96</b>  |
| <b>Appendix.....</b>  | <b>105</b> |
| <b>Appendix A .....</b>   | <b>105</b> |
| <b>Appendix B .....</b>   | <b>109</b> |
| <b>Appendix C .....</b>   | <b>112</b> |
| <b>Appendix D .....</b>   | <b>113</b> |
| <b>Appendix E.....</b>  | <b>114</b> |
| <b>Appendix F.....</b>  | <b>117</b> |

## Figures

|   |    |
|---|----|
| Figure 2.1: intersections between place-responsive outdoor education and environmental action ..... | 31 |
| Figure 5.1: Revised model showing findings .....  | 92 |



# **1. Introduction**

## **1.1 Overview**

This chapter provides an introduction to my thesis. Starting by outlining the rationale, and background to the study, which led me to undertake this research, it includes my research questions and an overview of the following chapters.

## **1.2 Rationale**

This study is concerned with looking at how an ethic of care developed from a place-responsive outdoor education journey could motivate students to take environmental action and care for their place.

I have instructed and taught outdoor education for twenty years, eighteen here in New Zealand, the last five of those exclusively at tertiary level. My arrival in New Zealand in 1998, started my interest in the human/nature disconnection and how becoming responsive to place, can lead to a sense of belonging, identity, and developing an ethic of care for place (Penetito, 2008; Wattchow & Brown, 2011). I experienced first-hand what it was like to be living in a place and yet feel dislocated and disconnected from that place. Moving to New Zealand was the first time in my life I had not known the land, plants and birds around me. I invested much time to learn the land, its history, its stories as well as creating my own; connecting to this new place.

There is a significant amount of concern today around the disconnection from nature that our children and adults are experiencing (Louv, 2010; Preston, 2004). Louv (2010) termed this disconnection nature-deficit disorder. The cost is the physical and psychological well-being that contact with nature brings (Kesebir & Kesebir, 2017; Leinbach, 2017; Louv, 2010). One way in which this decline from nature connection has become visible is through increased references to human-made environments and the similar reduction about nature in books, song lyrics and movies since the

1950's (Kesebir & Kesebir, 2017). With less cultural attention, time and thought in nature, there is a “muting of the message that nature is worth paying attention to and talking about” (Kesebir & Kesebir, 2017, p. 267). It means lost opportunities to awaken curiosity, appreciation and attachment for nature which could, in turn, nurture pro-environmental behaviours (Kesebir & Kesebir, 2017; Place, 2016). As a result of this disconnection, we are overusing the world's resources (World Wildlife Fund, WWF, 2016). With mass extinctions on the verge of happening (World Wildlife Fund, WWF, 2016), outdoor education could lead us towards a sustainable future and improve our human/ nature relationship (Hill, 2013; Hutson, 2008; Wattchow & Brown, 2011).

### **1.3 Background**

Our consumption and over use of natural resources keeps climbing, with a projection of humans exceeding the regenerative capacity of the earth by 75% by 2020 if our current trends remain constant (World Wildlife Fund, WWF, 2016). Engagement with changing our behaviour to live more sustainably is slow, as tangible worries like job security and finances often displace our concern for the planet (Stoknes, 2015). The over-consumption and climate change message is often framed by the idea of impending doom where we have to give up things. We have heard this disaster message so many times now we are de-sensitised to it (Stoknes, 2015). Part of this de-sensitisation appears to be related to increasing disconnection to nature, due somewhat to greater urbanization and cultural changes.

There is now a growing movement to ‘re-wild’ our children, to connect them to nature (Louv, 2010), to re-connect all of us to the environment and nature (Leinbach, 2017). When we look at some of our most influential conservationists, one thing they have in common is time spent outdoors from an early age, playing, learning and spending time with family or friends (Place, 2016). If we want future adults to express pro-environmental attitudes and engage in pro-environmental behaviours, it has been argued that we need to ensure they participate in activities like

playing, hiking, camping and fishing in natural areas before the age of around 11 years old (Wells & Lekies, 2006). This time in nature allows them to develop attachment to place and a deep sense of knowing their place (Place, 2016).

An extensive study done by the British Heart Foundation found that over one-third of the British children surveyed played outside for only 30 minutes a day or less and one out of five children were getting no outside time (Leinbach, 2017). If our children are not going outside in their own time, how do we connect them to nature and their communities? Many have suggested that outdoor education could be one answer to reconnect people with place, creating human/ nature relationships (Hill, 2013; Hutson, 2008; Wattchow & Brown, 2011). To do this requires shifting the focus of outdoor education from a tradition of skill acquisition and personal and social development (Zink & Boyes, 2007), to a more place-responsive outdoor education programme that includes sustainability, place and social education. Through place-responsive outdoor education students get to know their place, their community and their history, developing their own identity and sense of belonging (Penetito, 2008), that could lead to developing an ethic of care for their place (Wattchow & Brown, 2011). The implementation of place-responsive outdoor education programmes is slowly starting within New Zealand (Brown, 2012a; Taylor, 2014; Townsend, 2011).

Place-responsive outdoor education's focus on learning about place, community and history appears to be a good fit with education for sustainability and environmental action. The place-responsive outdoor education could begin to develop a connection and ethic of care for place through students learning about their place, its people and the issues or problems it faces (Wattchow & Brown, 2011). Education for sustainability's focus is to teach students about the environmental, social, cultural, political and economic issues and concerns of a place (Bolstad, 2003). Education for sustainability encompasses three aspects of learning, being education *in*, *about* and *for* the environment (Barker & Rogers, 2004;

Bolstad, 2003; Tilbury, 1995). Education *for* the environment is about empowering students to take action that addresses the cause of the environmental or sustainability issue (Bolstad, 2003; Jensen & Schnack, 2006). This study has explored how a potential ethic of care developed from place-responsive outdoor education journey could be transformed into motivation for students to take action.

#### **1.4 Research question**

The research questions that guided this study were:

1. How does a place-responsive outdoor education journey influence an 'ethic of care' in secondary students?
2. How does any 'ethic of care' developed from a place-responsive outdoor education journey motivate students to act for place?

An interpretive study of Year 10 students (14 or 15-year-olds) was used to address these questions. The students were from an urban city environment in New Zealand. They participated in a place-responsive outdoor education journey followed by some environmental advocacy sessions. A photo-elicitation interview followed, happening two weeks post the journey. Another semi-structured interview was conducted with each participant six weeks after the journey to explore whether the students had carried out any action or what their motivation was to act for place. Data gathered was analysed using inductive analysis to organise the findings thematically.

#### **1.5 Thesis outline**

This thesis is composed of four more chapters.

Chapter 2 is the literature review. The review examines key ideas for place-responsive outdoor education and its implementation in New Zealand. It then moves on to examine education for sustainability and teaching it in New Zealand schools. Finally, I explore the intersections between outdoor education, place-responsive outdoor education and education for sustainability. From this review, I designed a model

demonstrating the intersection of place-responsive outdoor education and education for sustainability. From the literature, I identified eight key theoretical underpinnings for place-responsive outdoor education leading to environmental action.

Chapter 3 is the methodology for this study. This chapter describes the methodology used to design the study and the approach to data collection and analysis. It describes the research sample and design, before discussing ethical considerations for this study.

Chapter 4 presents the findings of this study through identification and analysis of themes that emerged from the data. The findings are presented in two sections, one for each of the sets of interviews. The first section explores the place responsive journey. Four key themes emerged including exploration of local places, formation of community, local issue awareness and reflection on journey. The second section explores the motivation towards environmental action. Four themes emerged from the analysis: learning about action, learning through action, learning from action and pro-environmental behaviour. Finally, there is a case story of each student who took part in the study.

Chapter 5 presents a discussion of the study's findings in relation to the questions. It re-presents the model created from the literature and relates this to the findings as a visual representation as part of the discussion. It then outlines the limitations of the study before the conclusion addresses the overall research questions. Finally, implications and recommendations that have emerged from the study are discussed.



## **2. Place-responsive outdoor education, sustainable action and an ethic of care**

This chapter reviews the literature around place-responsive outdoor education, environmentally-sustainable action and looks at place attachment leading to pro-environmental behaviour. It starts with a brief background on why there is a need for place-responsive outdoor education. I then draw on Wattchow and Brown's (2011) four signposts to explain what components need to be included to make a programme or course, place-responsive. In New Zealand, a small number of place-responsive outdoor education programmes are starting to be implemented (Taylor, 2014; Townsend, 2011). These will be used to show both the success of implementing a place-responsive outdoor education programme and to highlight some of the potential barriers that may be preventing or hindering schools from applying a place-responsive pedagogy.

It is claimed that place-responsive outdoor programmes can help us to develop an 'ethic of care' (Wattchow & Brown, 2011). Contained within this claim is an assumption that if we care we may then take action for this 'place' (Wattchow & Brown, 2011). Although caring is just a predictor that we may take action (Rioux, 2011). In this thesis, I investigate the notion of environmental action, how it involves engaging the heart, head and the hands (Barker & Rogers, 2004) to get people to take action. Alternatively, put another way, you need to educate *in*, *about* and then *for* the environment (Ministry of Education, 1999). Environmental action is about empowering students to take action on environmental and sustainability issues (Ministry of Education, 2015a). To be considered as an environmental action, an initiative must address the cause of the environmental or sustainability issue (Jensen & Schnack, 2006).

Environmental action is one aspect of education for sustainability (EfS), which is part of the overarching philosophy of the New Zealand curriculum (Ministry of Education, 2007). Within this idea, education comes from a perspective of sustainability to create the attitudes and values of our youth

that lead to innovative and creative people, who think and act sustainably (Ministry of Education, 2015a). EfS and environmental education as terms are often used interchangeably; both have an element of taking action involved. Environmental education mostly focuses on environmental and conservation issues (Eames, Roberts, Cooper, & Hipkins, 2010). EfS still looks at these issues but uses a lens that also involves concerns for the social, cultural and economic well-being of people, recognising that human rights and social justice are just as important to sustainability as the natural environment (Parliamentary Commissioner for the Environment, 2004). This latter term is the focus in this study as social, cultural and environmental factors are all involved in how people respond to place. Can EfS then complement place-responsive outdoor education?

Using the engaging 'heart, head and hands' analogy (Barker & Rogers, 2004), it is possible to see how place-responsive outdoor education and EfS can complement each other. Currently, I have been unable to find any research which combines place-responsive outdoor education and environmental action or EfS. The challenge is getting people motivated from the point of developing an 'ethic of care' (Wattchow & Brown, 2011) to taking action.

Research has shown a link between place attachment and pro-environmental behaviour (Rioux, 2011). In the last section of this chapter, I explore the difference between action and pro-environmental behaviour, along with whether it could give some useful insights for getting people from caring to take action.

## **2.1 Background (Setting the scene)**

We have come to the end of the United Nations Decade of Education for Sustainable Development 2005-2014 (Sustainable Aotearoa New Zealand Incorporated, 2009). This decade-long focus was partly a response to our overuse of world resources (World Wildlife Fund, WWF, 2016). To ensure we have a global focus that continues beyond this designated decade, UNESCO has created an education strategy 2014-2021 (UNESCO, 2014).

In this is the strategic objective to “promote education for sustainable development more actively into education beyond the United Nations Decade of Education for Sustainable Development” (UNESCO, 2014, p. 47).

How well is the message of a need to “transition to greener societies”(UNESCO, 2014, p. 47), and being more sustainable, being delivered? In 1989 62% of Americans and 69% of Norwegians were either worried a fair amount or a great deal about climate change compared with 55% of Americans in 2014 and 47% of Norwegians in 2013 (Stoknes, 2015). We need to find solutions to the way we portray the climate message (Stoknes, 2015), as our concern has dropped. We also need to consider our use of resources, everyday practices and how they affect the Earth (Ministry of Education, 2015a; World Wildlife Fund WWF, 2014).

This drop in concern could be related to our urbanised lifestyle and dwindling time spent in nature (Leinbach, 2017). Living in cities and towns away from nature has left people seeing “the source of food and the reality of nature” (Louv, 2010, p. 133) as abstract. Another side effect of this disconnection is eco-phobia, where people and children start to fear nature due to a lack of direct experience with it and only being exposed to examples of environmental abuse (Louv, 2010). Even our references to nature have dropped in song lyrics, movies and books since the 1950’s, being replaced instead with more urban references (Kesebir & Kesebir, 2017). We have moved away from accepting that nature, for its physical and psychological benefits (Louv, 2010), has a positive, restorative effect on our health and that of the planet (Louv, 2012). Nature is a biotic community we now put economic value onto (Leopold, 1968).

Outdoor education has the potential to lead us towards a more sustainable future (Hill, 2013). There is a growing call for outdoor education to reconnect people with place, to improve our connection to nature, and to become more place-responsive (Hutson, 2008; Wattchow & Brown, 2011).

Blades (2005) believes that outdoor education has a moral and ethical responsibility to respond to the social and environmental crisis we face.

It has been argued that mainstream outdoor education in New Zealand still has adventure, risk, challenge and personal development as its main underpinnings (Hill, 2013; Zink & Boyes, 2007), with little focus given to either the traditions and history of Māori in those outdoor places (Andkjaer, 2008), or actions to address environmental and social sustainability. By keeping these underpinnings, outdoor education is promoting the societal status quo of individualism and consumerism (Boyes, 2012).

From my experience working in outdoor education and at a tertiary institute, my students and I travelled vast distances to go to the 'best' locations for the pursuit, giving little thought to fuel use. Hill (2013) argues that this means outdoor education remains "distant from the goal of education for a sustainable future" (Hill, 2013, p. 19). Researchers and academics have been increasingly concerned with the unsustainable practices of outdoor education and how slowly outdoor educators have been prepared to change their focus for greater sustainability (Boyes, 2012).

However, a transition from outdoor education being focused on risk, adventure, personal development and challenges is happening. There is a growing body of research on 'place-responsive' outdoor education (Mannion, Fenwick, & Lynch, 2013; Wattchow & Brown, 2011), with ideas on how to design a place-responsive programme or journey (Wattchow & Brown, 2011). There has been an increasing number of studies on the implementation and design of place-responsive programmes within New Zealand (Brown, 2012b; Skipworth, 2017; Taylor, 2014; Townsend, 2011).

Part of the reason for the transition being so slow is the pressure to assess, meaning many outdoor education programmes in schools use unit standards, which are skill-based assessments, that count towards credits for their final school results (Hill, 2010). The issue with unit standards is

the focus on skill, leaving no space to engage students with environmental action or social issues (Hill, 2010). Another reason for the slow integration of place-responsive outdoor education could be due to a lack of teacher training in place-responsive outdoor education and a need for teachers to make a pedagogical change which isn't always a simple process (Skipworth, 2017). Teachers in Singapore have grasped the idea of using their local place rather than having to travel to more wilderness areas to teach outdoor education, yet they lacked a deeper understanding of the pedagogy underpinning place-responsive outdoor education (Tan & Atencio, 2016). I now explore a framework for how place-responsive outdoor education may look.

## **2.2 Place-responsive outdoor education**

Place-responsive outdoor education is concerned with encouraging people to connect or re-connect to the ecosystem they live, work or recreate in. I have chosen the word ecosystem as it encompasses the whole environment; the social, cultural, geographic and historical, as well as the natural (Bowers, 2008; Brookes, 2002; Preston, 2004). Put another way, place-responsive outdoor education's objective is "to develop in learners a love of their environment, of the place where they are living, of its social history, of the biodiversity" (Penetito, 2008, p. 16). An important part of learning about 'your' place is "learning to listen to what places are telling us, and to respond as informed, engaged citizens" (Gruenewald, 2003, p. 645). Place-responsive outdoor education is education that grounds its "learning in local phenomena, and students' lived experiences" (Smith, 2002, p. 586). Through this learning you discover where you are from, get to know your people, and your stories, building a sense of belonging and connection to place (Penetito, 2008).

How can place-responsive learning be designed? Wattchow and Brown (2011) suggest four signposts that might help point the way towards a place-responsive pedagogy. The four signposts are:

1. Being present in and with a place.

Being present in and with place requires both the educators and students to become open and vulnerable to place. This is unlikely to happen if they feel threatened by the risks or hazards that they imagine they will find (Wattchow and Brown, 2011). By using a 'slow time' pedagogy based in the local, you have more opportunity to be engaged and attentive to where you are and what is happening around you (Nakagawa & Payne, 2017). For some students, slow means spending time in just one place; for others, the slowness means needing to be attentive and present in places they are moving slowly through (Nakagawa & Payne, 2017).

## 2. The power of place-based stories and narratives.

Danish researcher Soren Andkjaer (2008) argues that the places where outdoor education occurs are often given little consideration in New Zealand, beyond being the setting for the activities. By slowing down and becoming attentive and present in the place, we may start to gain a greater appreciation of the place. The second signpost is about getting to know the place we are in through the creation and telling of stories.

The process of telling, performing and creating stories about people, place and land use can provide engagement with land and culture (Stewart, 2008; Wattchow & Brown, 2011). When starting out on a journey as a traveller, learning what a place is to the local community and discovering the stories, means you can get closer to the uniqueness of a place and its significance (Wattchow and Brown, 2011). Brown shares an example of how storytelling can be used as part of a place-responsive journey; he has his students choose a topic relating to either the history, ecology or what is culturally significant for the local area that they will travel through (Wattchow & Brown, 2011). The students then share their local knowledge at appropriate times of journeying through that area, allowing them to start to see the significance of the place for themselves (Preston, 2004). Teaching in this manner disrupts the teacher as expert, student as the novice, allowing for new insights to be gained (Wattchow & Brown, 2011).

### 3. Apprenticing ourselves to outdoor places.

This signpost is a combination of the first two (Wattchow & Brown, 2011), needing “both a felt, embodied encounter with a place and an engagement with knowing the place” (p.190). This ‘knowing’, needs to involve the whole environment. Knowledge is required of the social, cultural, geographic, and historic as well as the natural aspects (Preston, 2004; Wattchow and Brown, 2011). Part of being an apprentice is to be curious and to ask questions. These are the questions Wattchow and Brown (2011) suggest to help the apprentice localise their curiosity;

What is here in this place?

What will this place permit us to do?

What will this place help us do? (Beames & Brown, 2016, p. 57)

The first question is to a greater extent answered by the first two signposts. This can happen when we have slowed down, become present in the place and become attentive to what is in the place (Payne & Wattchow, 2008). By researching and discovering the stories of the place and its people we are starting to get to know the place, and with that, what is here, what has come before, how, and if any, people, flora or fauna are interconnected with this place (Wattchow & Brown, 2011).

The second question, which looks at what we are permitted to do in the place, digs deeper. It is starting to get some critical thinking happening. Suggestions of questions to help this deeper thinking and understanding of the place could be looking at the history of the place. This may include what has happened here? What wounds has this created? (Wattchow & Brown, 2011). For example, it may be a river or creek, perhaps it is polluted, due to water quality and overfishing there are less fish and eels, the creek is wounded, and so are the people who relied on the river for food. To extend this further students could then think about who cares about the place now, how can they ensure that they do no further harm and how can they help heal this place (Wattchow & Brown, 2011, p. 192)?

What will this place help us to do? This framework question is about creating 'authentic' learning experiences (Beames & Brown, 2016) that are attuned to the location (Wattchow & Brown, 2011). Using this inherent curriculum that the area offers (Beames & Brown, 2016) has many benefits; students are connecting with 'this' place, it is no longer 'anywhere'. The learning is contextualised, meaning students do not need to have the knowledge transferred for them to understand how to use it in 'real life' (Beames & Brown, 2016). By designing the experiences using the curriculum inherent in the place, students get to experience the outdoors while showing appreciation of and working with the place. If this is then coupled with a safe environment for the group members to share with each other, particularly focusing on each other's strengths, conditions can be created for the group to develop and emerge into a community (Berman & Davis-Berman, 2005). Being part of a community is one link in helping us know and understand our place in the world (Penetito, 2008).

Penetito (2008) suggests that being responsive to place is linked to identity. Tied to identity is knowing who we are, where we are, our stories and our people or our community. By way of example, Dave Irwin, a tertiary outdoor educator, has found that by gaining knowledge and understanding of Māori culture, he has come to have a "deeper understanding of what it means to be Pakeha in Aotearoa New Zealand" (Irwin, 2008, p. 81). By learning about Māori culture, traditions and ways of knowing we may get an increased sense of our identity, and this could help sustain us on a more spiritual level.

Getting students to think about, learn and take action for a place using the questions above as a framework may help the students become more responsive to that place, but will not necessarily mean they then go on to be responsive to other places (Haluza-Delay, 2001). Wattchow and Brown (2011) have thought about this and added a fourth question "How does this place interconnect with my home place?" (2011, p. 192).

#### 4. The representation of place experiences.

This framework idea would involve getting students to reflect on their experience with the place(s). This reflection does not have to happen at the end as in a traditional 'debrief' session. Reflection is ongoing, as we are "already interpreting and reflecting on meaning when we are experiencing" (Wattchow & Brown, 2011, p. 195). If we encourage our students to take photographs, draw pictures, write poems or notes while they are experiencing the place, they then have something they can take home and continue their exploration and reflection of the experience (Wattchow & Brown, 2011). Part of this reflection could include getting the students to examine how the media represents the place they have been in or through (Wattchow & Brown, 2011), which could include land management and policies. It can also look deeper at how this aligns or conflicts with the diverse communities who may also use that place.

These signposts may be a useful framework, however often moving from this to something that is tangible can be difficult to overcome as many teachers find that time to plan and create new programmes is hard to find (Zink & Boyes, 2007). This next section looks at implementing a place-responsive pedagogy and some examples of its use in New Zealand.

### **2.3 Implementation of a place-responsive pedagogy in a New Zealand context**

*The New Zealand Curriculum* (Ministry of Education, 2007) promotes approaches to teaching and learning that develop our youth into active citizens who are connected to their place and community. Education Outside the Classroom (EOTC) is viewed as an effective method of achieving these learning goals (Ministry of Education, 2016). EOTC is any curriculum-based teaching that extends beyond the classroom walls (Ministry of Education, 2016). Outdoor education is one way of providing EOTC as it takes students beyond the classroom on a regular basis by its very nature. Although outdoor education is one way of providing EOTC, teachers often use EOTC and outdoor education interchangeably (Hill,

2010), even if on an intellectual level they understand EOTC to be far more than just outdoor education (Zink & Boyes, 2007).

In a 2006 study, Zink and Boyes (2007) found that within many schools outdoor education is still viewed as a medium for personal and social development outcomes. It has been argued that emphasis on adventure, along with personal and social development can cause tensions if we are trying to move to a more place-responsive way of teaching (Hill, 2010; Mikaelis, Backman, & Lundvall, 2016). This being said, some teachers are trying to include environmental education, place and social critique into their outdoor education practice (Mikaelis et al., 2016). However, one barrier for place-responsive outdoor programmes being implemented in high schools in New Zealand is the need to ensure students are achieving credits towards their National Certificate of Educational Achievement (NCEA). Townsend (2011) found the unit standards that were linked to outdoor education promoted the traditional risk, pursuit-skill based outdoor education, leaving little scope for implementing a place-responsive pedagogy.

The EOTC Guidelines (Ministry of Education, 2016) advocate for education outside the classroom to support “broad and deep learning in real-life contexts within and across the learning areas of the national curriculum” (Ministry of Education, 2016, p. 4). On the surface, the EOTC guidelines are trying to advocate for authentic learning to take place in the real world and real contexts (Beames & Brown, 2016). Townsend (2011) developed a programme using achievement standards from social studies, biology and sustainability. Using these achievement standards made space within her programme to have a more place-responsive focus that is interdisciplinary. One consequence of this was more open dialogue between departments at the school, which in itself could have benefits for the school as a community of learners.

Teachers may have a personal objective to include environmental education, place and social critique into their outdoor education (Hill, 2010;

Mikaels et al., 2016), yet there still aren't many examples or studies of place responsive journeys or programmes, particularly within a New Zealand context. Some of the recorded benefits of using a place-responsive pedagogy include a sense of pride, achievement and satisfaction due to the opportunities to contribute by sharing knowledge, and in the planning and decision-making along the way (Brown, 2012b; Taylor, 2014). The research projects that included student voices allowed the students to connect with each other, their community and make sense of the experience (Taylor, 2014).

The cost is one of the barriers that limit outdoor education programmes, either making them shorter in duration or reducing the amount they happen (Zink & Boyes, 2007). A place-responsive trip could be one way to reduce the financial outlay, as you need fewer outside 'technical experts' per student, which not only means it costs less, but students better get to know the staff that get involved with the journey. 'Experts' may still be used, but rather than technical experts, they can be community members who are experts in that place and their culture, stories and history within it, which is beneficial in a relational sense and for building on the idea of community (Brown, 2012b; Taylor, 2014).

A place-responsive programme or journey is facilitated in 'place' allowing the students to understand and experience the interconnection between themselves, community and place (Wattchow & Brown, 2011). It is the beginning of a journey towards belonging and fostering "an ethic of care" (Wattchow & Brown, 2011, p. 196). By responding to place, any ethic of care that develops may encourage students to also act on trying to solve any sustainability issues or problems related to that place (Wattchow & Brown, 2011). The next section looks at education for sustainability and what action is considered to be.

## **2.4 Education for sustainability**

Education for sustainability (EfS) began life as concern for environmental degradation, and was termed environmental education (EE). EE first

gained international attention and momentum through the *Tbilisi Declaration*, which came out of the world's first intergovernmental conference on the environment (UNESCO, 1977), and promoted education as a means to prevent further degradation. There began a shift towards a focus on sustainability in the 1980's with the popularisation of the term 'sustainable development' which picked up momentum in the 1990's (Parliamentary Commissioner for the Environment, 2004). The change from environmental education to education for sustainability was internationally recognised at the Earth Summit in 1992 through *Agenda 21* (Parliamentary Commissioner for the Environment, 2004). In 2002, governments agreed to integrate education for sustainability into their education systems (Parliamentary Commissioner for the Environment, 2004), and this was reaffirmed with members of the United Nations declaring a decade of education for sustainability 2005-2014 (UNESCO, 2005). As part of this, the Parliamentary Commissioner for the Environment recommended that New Zealand educators needed to reflect on changes to ensure people learned to live in sustainable ways and developed the See Change report into learning and education for sustainability (Parliamentary Commissioner for the Environment, 2004).

The terms EE and EfS, although often used interchangeably tend to cause conflict over semantics (Eames, Cowie and Bolstad, 2008). Environmental education, with its emphasis on 'the' environment, "has traditionally focused on scientific and ecological studies of the natural environment, as well as conservation issues" (Straker, 2008, p. 109). The *Guidelines for Environmental Education in New Zealand Schools* (Ministry of Education, 1999) show this view of environmental education within the aims. The overall aim was "to promote awareness about and for the environment" (Ministry of Education, 1999, sec. 4). The shift from using the term EE towards using EfS came from concern there was a need to broaden the focus from purely environmental and conservation issues to looking more holistically at concerns and issues around social, political and economic development also (Bolstad, 2003). As noted earlier, I am going to use the term education for sustainability (EfS) throughout. When I do this, my

meaning includes both the environmental and sociocultural sustainability aspects.

## **2.5 Education for sustainability in New Zealand schools**

Education for sustainability (EfS) or aspects of it have been embedded within the *New Zealand Curriculum*, through the overarching vision, principles and values (Ministry of Education, 2007). The *New Zealand Curriculum's* (NZC) vision suggests that our teaching should be connecting our students to the land, the environment and their community (Ministry of Education, 2007), as well as learning to become actively involved in the social, cultural, economic and environmental well-being of New Zealand (Ministry of Education, 2007). The values of the NZC suggest we will teach our students to engage and question their values and those of others critically, and that through this process students will develop values that support the ecological sustainability of New Zealand, and they will strive for equity for others and themselves through fairness and social justice (Ministry of Education, 2007).

The question is how do we teach these policy ideals through curriculum? The *Guidelines for environmental education in New Zealand schools* suggest splitting environmental education into three dimensions, namely, education 'in, about and for the environment' (Barker & Rogers, 2004; Bolstad, 2003; Ministry of Education, 1999; Tilbury, 1995), which could be considered engaging the heart, the head and the hands (Barker & Rogers, 2004). These three dimensions can also be applied to EfS and are discussed in more detail next.

### **2.5.1 Education *in* the environment**

Education *in* the environment is any education that happens *in* the environment, whether that is urban or rural (Ministry of Education, 1999). It tends to be learner-centred (Tilbury, 1995), giving students the opportunity to link the classroom with real world experiences (Ministry of Education, 2016). Examples of this are school camps and field trips. Tilbury (1995) suggests that education *in* the environment is about creating awareness of

that environment and concern for the environment, which in turn creates greater awareness of that place. This concern could be described as engaging the heart (Barker & Rogers, 2004).

Many studies have shown that education *in* the environment can have physical and psychological benefits, as well as lead to improvements academically (see for example; Leinbach, 2017; Louv, 2012; Rickinson, M., Dillon, J., Teamey, K., Morris, M., Choi, M., Y., Sanders, D., & Benefield, P., 2004; Williams & Dixon, 2013). The *EOTC guidelines: Bringing the curriculum to life* (Ministry of Education, 2016) states that going into the environment is an effective way of teaching that can engage students who are educationally disadvantaged. Education that uses real life contexts outside the classroom helps students engage and embed learning (Ministry of Education, 2016).

Incorporating family and community knowledge into the curriculum, and teaching can increase achievement across a range of curriculum areas (Aitken & Sinnema, 2008). The Learning Through Landscapes (2003) survey on school grounds projects in the UK, which included school gardens and farms, found that 52% of schools surveyed felt they had seen academic improvement from their students who were involved. A more recent synthesis of research into academic improvement through garden-based learning (Williams & Dixon, 2013) found that there was a positive effect in achievement for science, mathematics, language and arts.

Several recent studies have looked at how spending time in a natural environment versus an urban environment can have both affective and cognitive benefits (Bratman, Daily, Levy, & Gross, 2015; Lee, Williams, Sargent, Williams, & Johnson, 2015). Attention span can be boosted by having micro breaks as short as 40 seconds just looking at pictures of green roof space (Lee et al., 2015). By walking with some green space for at least 50 minutes resulted in a much greater reduction of anxiety, and the over thinking of problems, thus reducing stress in participants, compared with walking in an urban environment (Bratman et al., 2015).

The results on cognitive benefits were mixed. This led the researchers to conclude that there is evidence for the benefits of nature when you look at both affective and cognitive benefits together (Bratman et al., 2015). Education in the environment has also been shown to be beneficial for people's physical and physiological well-being (Kesebir & Kesebir, 2017).

### **2.5.2 Education *about* the environment**

The second part of education for sustainability (EfS), gaining knowledge and understanding about the environment (Barker & Roger, 2004) could be looked at as engaging the 'head' (Barker and Rodgers, 2004). In education *about* the environment, students gain ecological understanding, learn about local, national, and global issues, including factors that influence them, be it social, economic, political or ecological (Ministry of Education, 1999). This knowledge allows students to be involved with informed debates and may be enough for some people to become concerned about the environment (Thomas, 2005; Tilbury, 1995). This concern may or may not leave them feeling they have the responsibility to take action (Tilbury, 1995). Hopefully, this starts students critically thinking about and possibly changing their behaviour or even take action (Thomas, 2005).

### **2.5.3 Education *for* the environment**

In New Zealand, the NZC exhorts teachers to educate our youth to become citizens who are actively involved in the well-being of New Zealand (Ministry of Education, 2007). To be actively involved means you must take action, when it comes to education for sustainability (EfS), having an action – orientated approach is a vital component (Tilbury, 1995). Educating *for* the environment is empowering students to take action on environmental and sustainability issues that lead to a sustainable future (Ministry of Education, 1999, 2015a). The overall aim then of EfS is to facilitate students' ability to act. This action needs to address the cause of the environmental or sustainability issue, rather than address the symptoms (Bolstad, 2003; Jensen & Schnack, 2006). For

example, cleaning up litter would be a symptom and the cause might be no rubbish bins, consumerism or the type of food packaging being used.

If the action is treating the symptoms or is teacher initiated, for example, a beach clean-up, it is more of an activity the students are participating in rather than an example of environmental action. It is still valuable in the sense of helping students to see how the beaches look with all the rubbish and how they look post clean-up. They can acquire skills and knowledge around where the rubbish is coming from and also the harm and effect it can have on the marine environment (Jensen and Schnack, 2006). However, it is not tackling the cause of why the rubbish got there in the first place.

Also the action needs to be student-initiated, this way they see the relevance of the issue (Lundholm, Hopwood, & Rickinson, 2013). It allows them to find a real problem or issue they are intrinsically motivated by, researching possible solutions to the problem and then putting the plan into action (Bolstad, 2003). A problem with finding an issue collectively comes down to the differing views of what is relevant to the students. What they believe to be important now and in the future can differ considerably from that of the teacher and also other students (Lundholm et al., 2013).

Birdsall (2010) has suggested a three-part model to teaching students about action holistically, which includes learning *about* action, learning *through* action and learning *from* the action (Birdsall, 2010). This model would give the students a chance to think about how the future could look and how they could achieve this vision. They get to experience planning the action and taking part in it. Finally, it means they get to reflect on the action they took, allowing them to think about how effective and successful it was. The environmental action involves engaging the hands (Barker & Rogers, 2004). If educators want to have a holistic approach to EfS, they need to engage the students' hearts, heads and hands (Barker & Rogers, 2004).

## 2.6 Teaching EfS in schools

In the New Zealand curriculum, every learning area has achievement objectives set for every level of schooling (Ministry of Education, 2007). Education for Sustainability is not a core learning area in the curriculum; this means schools can choose to offer it or use to help fulfil some of the visions, values and key competencies of the curriculum. A curriculum guide has been written which includes a framework for Education for Sustainability (Ministry of Education, 2015b). This guide has learning objectives for the senior level to take the place of achievement objectives. These are designed for teachers to see learning progressions (Ministry of Education, 2015b). There is also a range of achievement standards allowing schools to offer either some sustainability papers or whole senior school courses on sustainability (Ministry of Education, 2015a). Unfortunately, due to EfS being optional, it has "to compete with mandatory curriculum areas" (Cowie & Eames, 2004, p. 22), meaning that while teachers may be interested and willing to implement EfS into their teaching (Williams, 2012), barriers may often prevent them from actually implementing any sustainability achievement standards. Several studies have identified barriers within the school system that hinder teachers implementing better sustainability programmes (Cowie & Eames, 2004; Williams, 2012). The top three reasons described were: a lack of learning resources ready for them to pick up and run with; the need for professional development to help teachers understand the basic principles of EfS; and a lack of time for planning EfS into the curriculum (Cowie & Eames, 2004; Williams, 2012).

One solution to removing many of the barriers of time, resources, and skills facing teachers and schools from implementing EfS (Eames et al., 2010) was piloted in Hamilton, New Zealand between 1995 and 1998. The aim was to look at how EE could be integrated into the school curriculum (Enviroschools, 2017b). The pilot was a success, and the Enviroschools Programme was developed (Enviroschools, 2017b). The aim of Enviroschools is "to foster a generation of people who instinctively think

and act sustainably” (Enviroschools, 2017a, para. 1). Each school in the Enviroschools programme is provided with a facilitator, to help teachers and connect schools with their community and partner organisations (Williams, 2012). The programme is learner-centred and promotes change both in sustainable living and educational processes (Eames et al., 2010). Benefits for schools involved in the programme have been reported as increased leadership from students, reduced bullying and vandalism of the schools, along with increased community awareness (Williams, 2012). The learning achieved through Enviroschools “will enable students to become more resilient in the face of predicted rapidly changing climate, water and resource situations and more empowered and better able to create their preferred sustainable future” (Williams, 2012, p. 41).

An example of an Enviroschools success story of a secondary school in New Zealand integrating EfS into their teaching and successfully using the sustainability achievement standards (Ministry of Education, 2015a; Williams, 2012) is Kaikorai Valley College, Dunedin, New Zealand. The focus of the work was on the stream (Kaikorai Stream) that runs through their college and community. The project linked the College with primary and intermediate schools in the local area, along with community and the geography, chemistry and zoology students from Otago University to investigate and improve the water quality of this heavily polluted River (McMillan & Binns, 2011). The school found that this kind of initiative took a lot of time and energy to organise, which echoes the message of other teachers’ reasons for not implementing EfS (Cowie & Eames, 2004; Williams, 2012). The school realised that to continue with the achievements they had been attaining in improving the stream and peoples' perception of it, a more systematic and school-wide approach was needed (McMillan & Binns, 2011). They joined forces with Enviroschools in 2010, allowing the school to facilitate a cross-curricular approach taking one topic/theme and applying throughout year nine subjects (McMillan & Binns, 2011). With the aid of Enviroschools, a year 12 activities programme was instigated allowing aspects of EfS to be

introduced, followed by a year 13 programme allowing achievement standards in EfS to be assessed.

Due to time constraints and needing a motivated teacher, it has previously been reported that many schools offer only a few, if any, sustainability achievement standards at level 2 and 3 (Williams, 2012). Anecdotal evidence suggests this situation may still remain. Through the New Zealand Outdoor Education Teachers Facebook group, I informally sought to get a gauge of whether many outdoor education teachers were using the Education for Sustainability achievement standards in their senior outdoor education classes. In May 2016 I posted a question regarding this, and got three responses. One teacher was using a level 2 achievement standard in sustainable values, another teacher in a different school was apparently using them with great success and a third teacher contacted me to say they currently weren't using them, yet felt they could easily be added into the outdoor classes.

In sum, The New Zealand Curriculum, recommends creating citizens who are actively involved with the well-being of New Zealand, their communities and their environment (Ministry of Education, 2007). Place-responsive outdoor education could engage students with 'their' place and 'their' community. This could help them to start developing an ethic of care and for them to be intrinsically motivated to take action for issues in their place. If they care, they will take action, or at least this is the assumption. How Education for Sustainability and place responsive outdoor education could fit well together is explored in the next section.

## **2.7 Intersections between place-responsive outdoor education and EfS**

I start with a brief history of the connection between outdoor education (OE) and environmental education in New Zealand to give some context (see Irwin & Straker, 2014; Straker, 2008). Nature studies and OE became entwined during World War II when Nature studies started to encompass activities "that encouraged physical fitness" (Irwin & Straker, 2014, p. 153).

The activities and physical element began to take increasing prominence until the 1960's, and 70's when a proposed syllabus suggested that OE should have three key areas: outdoor pursuits, environmental education and links to the current curriculum (Irwin & Straker, 2014). The two strands, nature studies and outdoor education, started to part ways in the 1980's. OE started to focus more on pursuit aspects, with personal and social growth as the main benefits (Irwin & Straker, 2014). Strengthening the pursuits aspect of OE even further was the development of the vocational qualifications created by the New Zealand Qualification Authority (NZQA) and Skills Active (Industry Training Organisation). Even recent qualifications on the National Qualification Framework (NQF) favour technical skills with some mention of the environment (Skills Active Aotearoa, 2011). These outdoor unit standards are used in senior high school outdoor education classes and due to a very technical skill focus aid in keeping the gap between outdoor education and EfS (Irwin & Straker, 2014).

Place-responsive outdoor education could narrow this gap and bring more EfS into outdoor education. When you start to compare place-responsive outdoor education and EfS, there are many similarities, suggesting they could go hand in hand. Place-responsive outdoor education starts by suggesting we need to be present in place and gain an awareness of place (Wattchow & Brown, 2011). This could be looked at as education *in* the environment or the idea of experiencing the environment (Ministry of Education, 1999; Tilbury, 1995). Alternatively, it could be viewed as engaging the heart (Barker & Rogers, 2004). Place-responsive outdoor education then suggests the need to share stories; your own, your communities, history, land use, ecology and cultural significance (Preston, 2004). Achieving this would involve engaging with the community, and community knowledge, gaining knowledge of ecological systems, potentially social and economic factors and land use (Barker & Rogers, 2004; Ministry of Education, 1999). This is a mix of education *in* and *about* the environment (Ministry of Education, 1999). It engages both hearts and heads (Barker & Rogers, 2004). If we consider the third sign post that

Wattchow and Brown (2011) suggest, apprenticing ourselves to place, this is attuning yourself with the place (Wattchow & Brown, 2011) and creating authentic learning that uses the inherent curriculum that place offers (Beames & Brown, 2016). Due to the authentic nature of learning that takes place, transferring learning to the real world is embedded in the learning, due to the learning happening in the real world (Beames & Brown, 2016). Students are learning about the place and how they fit into the place which involves engaging their head (Barker & Rogers, 2004). It is also about being present and experiencing the place, therefore engaging the heart (Barker & Rogers, 2004). The fourth sign post is about reflection on their experience (Wattchow & Brown, 2011), which could be both engaging their heads, thinking about it, and their hearts (Barker & Rogers, 2004), along with research into how the place is managed and potentially portrayed by others, including media (Wattchow & Brown, 2011), which could be viewed as engaging the head (Barker & Rogers, 2004).

If we think about place responsive outdoor education as engaging our hearts and our heads (Barker & Rogers, 2004), we could see it as a beginning towards “an ethic of care” (Wattchow & Brown, 2011, p. 196). By responding to place, we may be also acting on trying to understand and solve any issues or problems (Wattchow & Brown, 2011), leading to the part of place-responsive outdoor education that is an assumption; that from this position of caring, we will feel intrinsically motivated to take action. This final part of the literature review is going to look at this aspect.

### **2.7.1 Place attachment leading to environmental action**

There is a body of literature on place-responsive outdoor education (for example Bratman et al., 2015; Gruenewald, 2003; Irwin, 2008; Stevenson, 2008; Townsend, 2011; Wattchow & Brown, 2011). There is also plenty of research on environmental action and how it is understood (for example Birdsall, 2010; Eames & Barker, 2011; Jensen & Schnack, 2006; Mogensen & Schnack, 2010). I could find no research that does more than suggest that place responsive outdoor education will motivate us to act

(Wattchow & Brown, 2011). There is, however, research exploring motivations to demonstrate pro-environmental behaviour (PEB).

### **2.7.2 Pro-environmental behaviour (PEB) compared to environmental action**

On the surface, it could be possible to say that taking action for the environment and pro-environmental behaviour are interchangeable terms. Pro-environmental behaviour (PEB) is behaviour “that consciously seeks to minimise the negative impact of one’s actions on the natural and built world” (Kollmuss and Agyeman, cited in Jensen, 2002, p. 240). Taking action through developing action competence is about empowering people to act on environmental and sustainability issues (Ministry of Education, 1999). This action needs to address the cause of the issue (Jensen & Schnack, 2006) and needs to be initiated by the person/people addressing the issue (Lundholm et al., 2013).

The difference then between PEB and action competence is that you can manipulate or influence people to have more PEB (Jensen, 2002). For example, you could run a competition for reducing power usage for a month. In fact, this was studied by van der Linden (2015), and he found that power consumption went down during the competition, yet as soon as the competition ended, power consumption went back to pre-competition levels. The cause of the issue had never been addressed; the competitors’ behaviour had just been manipulated by the incentive. The behaviour change was short-lived and lasted as long as the reward was in place (Steg & Vlek, 2009). When it comes to environmental action, the person should be intrinsically motivated to act (Bolstad, 2003). One way of looking at this is that the person or group that takes environmental action, as a way of highlighting or solving an issue, may look at educating others to change their behaviour, or at creating solutions that make it easier for others to change their behaviour to be more environmentally responsible.

### **2.7.3 Place attachment and pro-environmental behaviour (PEB)**

Pro-environmental behaviour (PEB) has been shown to have a link with attachment to place (Rioux, 2011; Scannell & Gifford, 2010). Specifically, attachment to the natural environment is a greater predictor of PEB over the attachment to the urban environment (Scannell & Gifford, 2010). Identity is also a significant predictor of people's intention to perform PEB, particularly if they have a 'green' identity (Gatersleben, Murtagh, & Abrahamse, 2014). This may exemplify a link between the identity of self to place and community (Penetito, 2008).

An individual's 'environmental identity' may be a significant predictor of environmental behaviour. It has been argued that the more individuals are engaged with a community and look beyond their own immediate interests, the more likely they are to engage in pro-environmental behaviour (Steg & Vlek, 2009). These people still have contradictions, just because they behave environmentally in one aspect of their lives does not predict that they will in another (Steg & Vlek, 2009). An important factor is how easily one perceives it is to do that behaviour. For example, recycling can be seen to be easy to do, whereas reducing car use for work may be seen as inconvenient and difficult to do. Therefore, this behaviour does not occur (Gatersleben et al., 2014). Other constraints to people demonstrating PEB are cost: if it is cheap, they will (Steg & Vlek, 2009); lack of time; and social pressures from family and social norms (Kollmuss & Agyeman, 2002).

A significant barrier to people exhibiting more PEB is that communication and information around why we need to change our behaviour are often around giving things up for the greater good (Stoknes, 2015). The issue here is we are giving things up that we often enjoy and not seeing the rewards or improvement in our environment for this (Stoknes, 2015). How then do you engage more people in PEB, include breaking habitual behaviour? Let's consider an example. You could force car drivers to use alternative transport to get to work. They learn that there are alternatives, and long term, a reduction of car use is seen (Steg & Vlek, 2009). Another

way would be to re-story the message. Instead of talking about what we need to give up and why, make it personal by asking 'what could I gain from changing my behaviour' (Stoknes, 2015)? For example, instead of making the message reduce car use to reduce dependence on fossil fuels and reduce CO2 emissions, the message could be re-storied to if you bike to work, you will be fitter, healthier, able to keep up with your children easier, reduce stress, save money on parking, the list could go on. This re-storying could potentially be used with environmental action also. Instead of focusing on the issue and what action could be done' it may also be useful after looking at the issue, to look at what people are already doing in the area to help solve the issue or what people are doing in other places. Celebrating the environmental actions that are already happening may help students realise that it is possible to make a difference.

#### **2.7.4 Linking place-responsive outdoor education, environmental education and environmental action**

The intersections between place-responsive outdoor education and education for sustainability have been discussed in Section 2.7. A model that visualises these links is shown in Figure 2.1. The model depicts the interlinked web nature of Wattchow and Brown's (2011) four signposts and Birdsall's (2010) model of learning about, through and then from action by utilising environmental education's underpinning of education in, for and about the environment (Barker & Rogers, 2004) as discussed in 2.7.

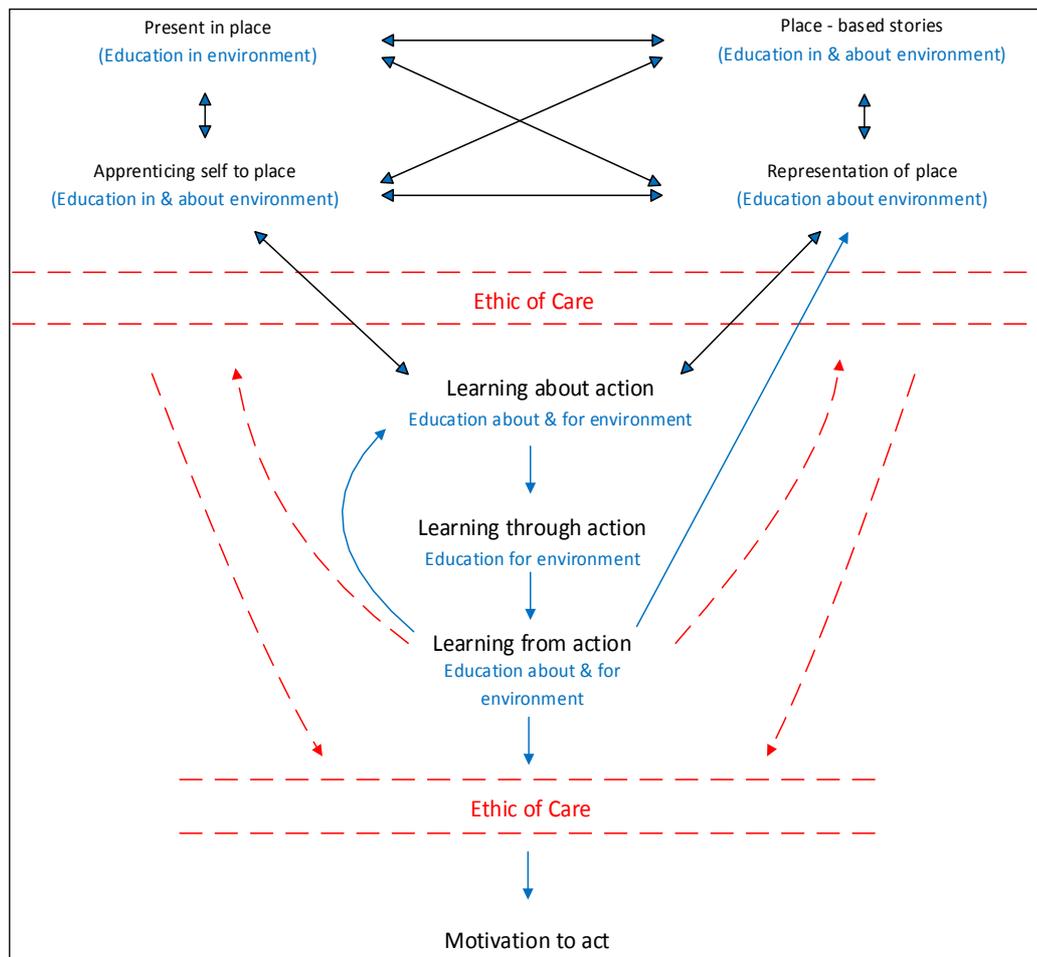


Figure 2.1 intersections between place-responsive outdoor education and environmental action

The model suggests that Wattchow and Brown's (2011) four signposts are not linear, but are an interconnected web. While being present in a place, an opportunity for students to create their own stories and learn the stories of that place exists. It could also be that while creating their own stories and learning the stories of the place, the students are more present. This two-way interconnection, depicted with the arrows, happens between all the signposts. The four signposts are arranged at the top with an ethic of care underneath to show how place-responsive outdoor education can start to develop an ethic of care (Wattchow & Brown, 2011). This ethic of care is then the motivation for students to expand into learning how to take environmental action by utilising Birdsall's (2010) model of learning about, through and from an action. The process of learning about, through and from an action (Birdsall, 2010) is not quite linear either. While learning about action and researching you are also apprenticing yourself to place

and learning about the representation of place. Learning from an action can inform your learning about action. The reflection on your action will also help inform how that place is represented for you.

Learning from action also has a link back to ethic of care. While learning the varying stages of taking action, you are still learning about that place, and environmental action could help further develop an ethic of care. There is then a link from the ethic of care between the signposts and environmental action, and the ethic of care at the base of the model. This is depicting that learning about, from and through action further develops the ethic of care and gives the students the confidence and motivation to act.

A predictor of people demonstrating pro-environmental behaviour or having a motivation to act is having an ethic of care (Rioux, 2011; Scannell & Gifford, 2010). The filter at the bottom of the model is this ethic of care; some people will move through the filter and be motivated to act, others will get caught in the filter.

## **2.8 Theoretical framework**

A set of theoretical principles have been drawn from the literature, informed by the model (figure 2.1) to aid in the data gathering in this research:

1. Place-responsive outdoor education
  - a. Exploration of local places. A place-responsive pedagogy helps learners to explore their place from a wide variety of perspectives, including its history, geography, economy and sociology.
  - b. Formation of community. Place-responsive pedagogy allows learners to discover and get to know people from the community they are journeying in. Learners also form a community with their fellow learners, sharing stories and experiences.

- c. Local issue awareness- developing ethic of care/concern. Through the journey, learners become aware of issues and problems that this 'place' faces and how they affect the 'place.'
  - d. Reflection on trip. A place-responsive pedagogy helps learners start reflecting and interpreting their experience, while still on the trip and also post the trip.
2. Environmental Action
    - a. Learn about action – Learning about how to achieve creating a solution to the issue/problem they have identified.
    - b. Learn through action – Learners get to experience both planning action and taking action.
    - c. Learn from action – Learners have the opportunity to reflect on their actions, and how successful they feel their action has been.
  3. Action competence or motivation to act
    - a. Action competence is knowing how to plan and take meaningful action.
    - b. Action is feeling motivated and empowered to take action that helps address the root cause or find a solution to the problem or issue.

## **2.9 Chapter summary**

As I have outlined in this chapter, there is a lot of research on place attachment and PEB (for example; Gatersleben et al., 2014; Jensen, 2002; Steg & Vlek, 2009; van der Linden, 2015). There is also a lot of research on environmental action (for example; Eames & Barker, 2011; Jensen & Schnack, 2006; Mogensen & Schnack, 2010). There is a definite gap in research between any ethic of care developed through place-responsive outdoor education and taking environmental action. The other gap I have found is a lack of research on how environmental action could be an extension of a place-responsive outdoor education programme. Taking people on a learning pathway to developing place-responsiveness could be extended to taking action (figure 2.1), rather than leaving it as an

assumption that they may. The action may be facilitated to aid the students, and from this, they may then see that their small actions can make a difference to their community and place (Rioux, 2011). It is filling this gap of getting people from a place of caring through place-responsive outdoor education to being intrinsically motivated to take environmental action that this study is trying to explore. The next chapter details how the study was carried out.

### **3. Methodology**

This study has been designed to ascertain if place-responsive outdoor education can foster an ethic of care that will lead people to take positive environmental action. I am specifically interested in gaining an understanding of the participants' motivations relating to environmental action (Locke, Silverman, & Spirduso, 1998). The first part of this study was to explore, from the participants' perspectives, the meanings and understandings they gained from the place-responsive outdoor education journey, and whether they developed an ethic of care. The second part of this study was to ascertain if facilitating the creation of an environmental action plan, that is realistic for them to achieve, allows the participants' to transform their ethic of care into intrinsic motivation to take environmental action.

This chapter describes the methodology and methods I chose to gain this knowledge and understanding (Denzin & Lincoln, 2011b). It then looks at the participants' selection, the specifics around the data collection and analysis, and a discussion of the ethical considerations for this study.

#### **3.1. Methodological approach**

Before discussing the research method used in this study, it is important to look at the underpinning methodological approach. To decide on the most appropriate methodology, I had to look at the problem I was trying to address and gain knowledge about (Denzin & Lincoln, 2011a). The methodology then informs us on why we collect the data a certain way (Chesebro & Borisoff, 2007). There are several common methodological approaches to research, such as positivism and interpretivism (Lincoln, Lynham, & Guba, 2011). The ontological stance of positivism sees the nature of reality as being external with a single objective reality to any phenomenon (Edirisingha, 2012). Interpretivism, on the other hand, suggests that there are multiple natures of reality, and these are relative to the phenomenon (Edirisingha, 2012). The knowledge acquired is socially constructed, therefore subjective (Lincoln et al., 2011). An interpretive lens is utilised here as I am attempting to gain an understanding from the

participants' perspectives (Locke et al., 1998, p. 140) and in doing so "describe meaningful social action" (Neuman, 2003, p. 91).

There are several common approaches to interpretive research, such as ethnography, phenomenology, phenomenography, hermeneutics, case studies, grounded theory or critical research (Scholl, 2008). Of these common approaches, the most appropriate for this research appeared to be phenomenography, as I am interested in the different ways that the students "experience, conceptualise, perceive and understand various aspects" (Marton, 1986, p. 31) of the journey and environmental action. With phenomenography as the chosen research approach, this indicated that the study would have a qualitative data basis, as this type of data is most appropriate to this research approach.

All qualitative research exhibits some common traits to differing degrees (Bogdan & Biklen, 2007). As a qualitative researcher, I am interested in the setting that the study takes place in, as I believe it is of great importance to the data collection (Bogdan & Biklen, 2007; Chesebro & Borisoff, 2007). This study utilises natural locations (Chesebro & Borisoff, 2007), using both the 'natural outdoor setting' for the place responsive outdoor education journey and then a space at the school for the interviews about student learning. This allowed the students to be in a familiar or 'naturalistic' setting, making the nature of qualitative research ideal for collecting the data. The data collected, which is in the form of words from the interviews, and from the context given by observations during the journey, are rich in description, capturing the communication and meaning of the students (Chesebro & Borisoff, 2007). When I examine the descriptions of the journey, everything is a potential clue to help unlock further understanding and meaning (Bogdan & Biklen, 2007). I needed to ensure I used a systematic approach, as qualitative studies are concerned with process (Bogdan & Biklen, 2007; Neuman, 2003), not just outcomes.

As qualitative research tends to be inductive by nature, I started by gathering the data, then looking for patterns or themes to emerge. The construction of understanding happens throughout as data is collected and examined, potentially creating theories and asking new questions (Bogdan & Biklen, 2007; Chesebro & Borisoff, 2007; Neuman, 2003). The qualitative research process can be thought of as a spiral rather than linear due to the dynamic nature of the knowledge, resulting in a deeper understanding of the research subject investigated (Scholl, 2008). Qualitative studies search to create 'meaning', to gain understanding from the participant's perspective, all the while reflecting on the interplay between researcher and participant (Bogdan & Biklen, 2007). As the researcher it is important that I be self-aware, functioning as an observer and a participant (Neuman, 2003) or "passionate participant" (Lincoln et al., 2011, p. 101). The data is co-constructed by both the student and myself as the researcher (Chesebro & Borisoff, 2007). Some of the co-construction of meaning happens during analysis, as it is my interpretation of the participant's descriptions that create understanding (Lincoln et al., 2011).

The interpretive lens with a phenomenography approach is an ideal fit for this research. The study is trying to gain an understanding from the students' perspectives; firstly, on how they view 'their' place post the journey; secondly, to gain an understanding, and make meaning, of the students' motives and motivation either to take meaningful environmental action or not. Having ensured the research lens and methodology is appropriate for gaining the knowledge that the study aims to discover, it is also important that the method, which is "*how* the data is collected" (Jackson, Drummond, & Camara, 2007, p. 22) has a "synergetic relationship" (Jackson et al., 2007, p. 23) with the methodology. There are many different research methods used in qualitative research, with the in-depth interview and participant observation as the two primary methods employed here (Bogdan & Biklen, 2007). This study employed in-depth interviews, based on photo-elicitation, as its principal method, and participant observation as an auxiliary method to gain context. The next

section is going to explore qualitative interviews and their suitability for this research.

### **3.2 Qualitative interviews**

The interview is one of the most used methods for qualitative research (Qu & Dumay, 2011). Qualitative interviews allow the interviewer to gain an understanding of the interviewee's "lived experience...and the meaning they make of that experience" (Seidman, 2013, p. 9). As the interviews were with Year 10 students in this study, this took the style of a conversation to help build rapport with the students and allow them to be more relaxed and open to talk. It was a professional conversation of daily life as the interview has a purpose and structure with some key questions and topics to be covered, yet like a conversation had the freedom to follow interest (Kvale, 1996). The interview brings into focus and allows us to "examine that which is often looked at but seldom seen" (Rubin & Rubin, 2012, p. xv), making the use of qualitative interviewing ideal, due to being interested in gaining an understanding of the participant's experience of the place-responsive outdoor education journey, their attitudes towards 'their place', and in gaining an understanding of the students' motivations and attitudes towards sustainable action (Seidman, 2013). The qualitative interview process was a social encounter, where the students not only shared their experiences with me as the interviewer but a place where together we co-create meaning of these experiences (Lincoln et al., 2011; Qu & Dumay, 2011).

Qu and Dumay (2011) highlight the three main types of qualitative interview. I have also drawn on Kvale's (2007) and Rubin and Rubin's (2012) work and included a fourth kind of interview:

1. Structured interview. This interview is about studying facts. It uses a script or set questions. Structured interviews are often used for surveys. Due to the scripted nature, it means multiple people, not just the researcher can carry out the interviews.

2. Semi-structured interview. This type of interview is about understanding social constructions from the perspective of the interviewee. It has a prepared guide of questions, which fit under themes to ensure certain topics are discussed. The interviewer also has the freedom to follow any unexpected or interesting areas the interviewee may bring up.
3. Unstructured interview. This type of interview focuses more on 'meaning' from the interviewee's perspective. The appearance would be more of a conversation than all the other interview types. The interview is conducted with a general topic in mind. The interviewer formulates questions as the interview proceeds, allowing the interview to follow the direction of the interviewee, within the general topics the interviewer has in mind.
4. Focus groups. This type of interview is similar to the unstructured interview; it is characterised by a nondirective style, where the interviewer is in a facilitation/moderator role, supplying general topics for the group to discuss.

Semi-structured interviews were chosen, as it was important for all participants to have consistent questions that are guided by the research, while at the same time leaving the researcher freedom to be able to use probing questions to elicit fuller answers from the participants (Qu & Dumay, 2011). Following up on an area or topic the participant is interested in can allow the researcher to gain a deeper understanding of the participant's experience (DiCicco-Bloom & Crabtree, 2006).

There are a few issues to be considered when doing qualitative interviews:

1. Interviewing is time-consuming (Rubin & Rubin, 2012). Interviewing is very labour intensive due not only to the time involved with the interview but also the time required to transcribe and then analyse the interviews. It took some negotiation to ensure the students did not miss too much time from class for the interviews; this was done in conjunction with the participant, the teacher, and myself, to avoid the interview time being an issue for the participant.

2. The participant's answers can be ambiguous. It is the interviewer's responsibility to clarify these ambiguities (Kvale, 2007) and check that the questions are comprehensible to the participant (Qu & Dumay, 2011). It was also important to ensure the questions were posed in a language they would understand (Kvale, 2007).
3. My interviews were with adolescents, and with my being an adult there is a definite power imbalance. To remove some of the barriers, this can pose, I tried to ensure that the participants understood there were no right answers (Kvale, 2007), that their story and perspective is all I was trying to understand. Often semi-structured interviews are of 30 minutes or longer (DiCicco-Bloom & Crabtree, 2006), but due to the age of the students, I ensured that they were at most 30 minutes long (Seidman, 2013).
4. Lack of trust/ rapport (Taylor, 2014). The interviewer may not be known to the participants. To try and alleviate this as a concern, I spent time before the place-responsive outdoor education journey meeting the students, getting to know a little about them, sharing a little about where I was from, briefing them, explaining the trip and answering questions. I also went on the journey in an observation role.

I tried to ensure that the interview was a neutral encounter to avoid any researcher bias influencing the process. The interview cannot be a neutral encounter, though, as knowledge and understanding were co-created between myself and the student (Qu & Dumay, 2011).

Participants were given copies of their transcribed interviews to comment on or clarify anything they said, ensuring their intended meaning had been captured in the interview (Carlson, 2010). I explained to the students that the transcripts would be written as they had spoken, to prepare them for how they may feel reading these. I also explained that the filler words would be removed if used within this thesis and some grammar corrected (Carlson, 2010).

To ensure I was less of a stranger to the participants and to gain a deeper understanding, during the journey I took on the role of a participant observer (Kvale, 2007). The next section discusses the specific methods of interviewing used for this study.

### **3.3 Method - photo-elicitation interview**

The specific methods I chose to use for this study were semi-structured photo-elicitation interviews and participant observation. Collier first described Photo-elicitation interviews (PEI) in 1967, and these interviews use images or pictures, which can be either researcher-generated or participant-generated, as the main focus of the interview (Clark-Ibáñez, 2004). Since then PEI has been used in anthropology, psychology, sociology, and education research (Loeffler, 2004). PEI has been used successfully with children and adolescents (Clark, 1999; Clark-Ibáñez, 2004; Smith, Gidlow, & Steel, 2012; Taylor, 2014). The traditional semi-structured interview with children and adolescents can accentuate the power dynamics of the adult interviewer (Clark-Ibáñez, 2004). Using photographs as the focus of the interview can help share the power between the interviewer and the participant (Miller, 2015). This sharing of power was important to me, as the participants were all Year 10 students, aged 14 or 15.

The advantages of Photo-elicitation interviews:

1. Photographs and images can create an enthusiasm which helps 'break the ice' (Clark, 1999), helping build rapport and creating a positive atmosphere (Miller, 2015).
2. Generation of data is by the participants, giving them the freedom to choose to take photographs of what is important to them (Smith et al., 2012). This can highlight something that may be obvious or relevant to the participant but may be invisible to the interviewer (Clark-Ibáñez, 2004).
3. Using the photographs encourages the participant to access their memories, feelings, and reflections of the event along with comments and discussion on the event (Miller, 2015; Smith et al.,

2012) allowing them to “speak in their own voice” (Carlsson, 2001, p. 127). The use of photos as prompts for the participants to tell their stories can overcome some of the linguistic issues between adults and adolescents (Clark-Ibáñez, 2004).

4. The use of photos in conjunction with spoken and or written words allows for a fuller explanation of the event (Carlsson, 2001) allowing the researcher to collect rich data, from the perspective of the participant close to the time of the experience (Smith et al., 2012).

There are also some potential challenges with using PEI; the camera may get lost, the students may be unskilled with using the camera or forget to take photographs (Clark-Ibáñez, 2004). Cameras and developing the film can be expensive, along with the logistical coordination of handing out the cameras, getting them back and having time to get the photographs developed before the interview (Clark-Ibáñez, 2004). There could be technical difficulties for the participants in using a film camera, especially for adolescents who are more used to using a phone or digital camera where you can review what you have taken. To get digital cameras for all participants could be very cost prohibitive, however (Clark-Ibáñez, 2004). These challenges could have been alleviated if the students in this study had been allowed to take photographs on their phones. The pictures could then have been uploaded to a shared cloud. Unfortunately, the school had a policy of not allowing students to have their phones during the journey. The teacher gave the students their phones for short periods in the evenings to contact their family.

The final challenge is photographs used as data alone allow for the images to be misinterpreted, underestimated or the loss of information (Miller, 2015). This means participants should be encouraged to interpret their photographs to add context and provide insight into the images (Smith et al., 2012).

The PEI method did allow the students to share their stories, feelings and recollection of the journey and then the sessions on environmental action,

from the photographs they took (Miller, 2015). Looking at the images by the interviewer and the participant is a shared activity that defines the creation of meaning as a shared experience that also shares power (Clark, 1999). This method was used for both interviews with each participant.

### **3.4 Participant observation**

Participant observation was used to gain a greater understanding of what the participants experienced and to help with rapport building. Participant observation allows the researcher an 'insider's' perspective while maintaining distance (Neuman, 2003). Through observing, I got to see the events holistically in the social context (Neuman, 2003). The observation was intended to provide context and allow for greater understanding of what the students experienced when interviewing them, enriching the data gathered. The photo-elicitation interviews were the primary source of data generation.

### **3.5 Research design**

#### **3.5.1 Participants**

The participants of this research project came from a school contacted through professional networks. The all-girls school is based in a New Zealand city. The Physical Education department in the school had created an extracurricular outdoor education and leadership club called "Backyard Adventure" for their Year 10 students to join. Students had to apply to join the club, with thirteen participating in the year of the study. The students came from a variety of ethnic, and academic backgrounds (see details in chapter 4.4.). Six students were chosen as the study cohort for logistical reasons.

The Principal of the school gave consent for this study which was approved by The University of Waikato Faculty of Education Human Research Ethics Committee as it met their ethical guidelines. All members of the Backyard Adventure club were invited to participate in the study and supplied with information sheets on the project and consent forms (see Appendix A). All of the students returned their consent forms, meaning the

teacher randomly chose six to participate in the study by pulling names out of a hat. All of the students involved with Backyard Adventures, on the request of the teacher, were given a disposable film camera and got interviewed at the different stages of the study, not just the students who had randomly been chosen to participate in this study. However, only data from the six participants was used in this study.

The students got an introduction to the use of the disposable cameras a week before the journey. During this meeting, they all picked pseudonyms for themselves. This name was written both on the camera and on paper, with a photo of the name taken as the first shot, allowing for the right camera and also the developed photos to go to the right student. A second disposable camera was given to the students post the journey so that they could take photographs of the environmental advocacy sessions.

The students received brief instructions on taking photos. These were:

*For the journey - Take photos of what the trip is like for you, ensure the photos reflect what it is like for you over the five days we are away. You are encouraged to think about what you might like to take the photos of and that you should take up to five or six photos each day. There is no expectation of what type of photos you should take.*

*For the environmental advocacy sessions - Take photos of what preparing for environmental action is like for you, ensure the photos reflect what it is like for you while planning the action. You are encouraged to think about what you might like to take the photos of, there are no expectations of what type of photos you should take.*

### **3.5.2 Research trip**

The research trip was designed and organized by the teacher and myself. I played a big part in this to ensure the journey incorporated the theoretical framework of both place-responsive outdoor education and environmental

action into the design. To provide some context here is a brief outline of the journey and environmental sessions post-journey:

The journey was conducted over five days. It started and finished at the school. A total of twelve students completed the journey; all were Year 10 students who had chosen and applied to be part of the Backyard Adventure club. The staff consisted of one teacher from the school, five Polytechnic students who were leading the journey, plus their supervisor. I was in a participant observation role. Several community members joined the journey for short sections; these people provided an interpretation of 'their' place as we passed through. After the journey two women from Generation Zero came and ran three 1hr environmental advocacy sessions, which I observed to again to keep my role as researcher clear. The women were briefed on the journey, where we had gone, whom we had met and the issues that we had been introduced to as we travelled. Here is a brief overview of the Journey: The more detailed programme can be seen in Appendix B.

#### Day 1

Biking from the school to camp using the theoretical framework of slow pedagogy. The journey began with a Karakia (prayer for a safe journey); this ensured cultural inclusion and exploration of place, and included visiting edible and community gardens to help form an understanding of place, again designed from the framework of exploration of place. The whole day included exploring the place and formation of community either with their peers or with the wider community.

#### Day 2

Tramping through bush over an iconic hill to the hall for the night, again designed to utilise a slow pedagogy allowing them to explore the place and build on formation of community. Learning about the forest, plants, birds and human history this aided their exploration of place and local issue awareness.

#### Day 3

Supposed to be sea kayaking across harbor, which would have employed a slow pedagogy. Massive southerly winds changed plans, meaning catching a boat across, stopping at islands along the way, the stop was to utilise slow pedagogy, and exploration of place. While there we looked at local issue awareness, and cultural and historical significance of the islands. Once across harbour, bike to the hall for the evening, designed to use a slow pedagogy. The whole day was about shared experiences and formation of community.

Day 4

Bike out to harbour mouth and back to the hall for another night, again to use a slow pedagogy and allow for exploration of place – learning about birds, pests, the sea environment along the way. Designed to utilise the framework of exploration of place, local issue awareness and formation of community.

Day 5

Biking from hall back to school to complete the loop around the harbour. Using a slow pedagogy and time for a reflection on the trip. Reflection did not happen just on the last day, but at the end of every day was some form of reflection and then any the students did themselves as they went along.

### **3.5.3 Environmental advocacy sessions**

There were three environmental advocacy sessions post the journey to revisit where the students had been, what they had seen and to look at varying issues they had picked up on during the journey. From here they were led through a process of how to plan an environmental action. There was then three weeks between the final session and the second interview to give enough time for them to complete the action if they were motivated to do so.

## **3.6 Interviews and observation**

### **3.6.1 Interview 1**

The first photo elicitation interviews happened two weeks after the journey. The photos were developed and interview times arranged in consultation

with the teacher and each student. The interviews lasted between 15 and 30 minutes. The interview asked students to talk through their photographs, and then use the photos to answer five questions about the journey. There were some extra questions, which included prompts to find out if the students had been to any of the locations before, and to explore how they now perceived their city. See Appendix C for interview questions. Interviews were recorded on an electronic Dictaphone and the files transferred over to a computer. Then the interviews were transcribed into written text for analysis. The students were given a copy of their own transcript to comment on and check their intended meaning was in the text.

### **3.6.2 Interview 2**

Interview 2, although planned to be a PEI, turned into a straight semi-structured interview. There were a couple of reasons for this; firstly, due to an injury, I was unable to observe the environmental advocacy sessions, meaning the cameras could not be handed out at each session and collected in at the end. Secondly, students did not get any gentle prompt reminders at the beginning of the sessions to think about taking photos. Many of the students took their second camera home and just forgot to bring it with them to the environmental advocacy sessions.

The second interview happened six weeks post the journey to ensure time for the students to plan and possibly carry out an environmental action. Due to not having any photographs, the interview used a mix of the prompt questions, which questioned students about what they had done in the environmental advocacy session, how they decided on what action they wanted to explore further, what role they took in the process and if they might take any further action. See Appendix D for a full list of questions. Again all interviews were recorded on an electronic Dictaphone and the files transferred over to a computer, and then transcribed into written text for analysis. The students were given a copy of their transcript to comment on and check their meaning was in fact in the text.

### **3.6.3 Observation**

The plan was to observe the journey and then the environmental advocacy sessions. However, the day before the journey began, someone opening a car door knocked me off my bike, and unbeknown to myself I sustained a concussion. Over the week of the journey, I became quite ill. I ended up being off work for four months recovering from this accident. I did not want to waste the data and persisted with the research, amending my involvement to allow it to happen.

The backyard adventure journey was observed, as the original plan was to gather additional field notes to help provide context; the injury I sustained made this very ineffective. I took a few free form observational notes, along with a few photographs while on the journey. The notes were of comments students made, the type of questions they asked, how engaged they appeared to be at varying times. Participating in the journey as a member of the group did give me an opportunity to build rapport with the students (Neuman, 2003), meaning I was not a stranger when it came to the interviews.

Being another group member and adult on the journey could have potentially altered the student's behaviour or reactions to some things. To try and alleviate my being there from influencing the students, I ensured I had met them before the journey, and we had time to break the ice. I did feel this put the students at ease and allowed them to accept me into the group. From a researcher's perspective, participating in the journey allowed me to gain context of what the students' were experiencing, this certainly helped when it came to the interview with understanding what the students' had gone through.

The observation of the environmental advocacy sessions did not happen due to the serious injury that I sustained, which may have impaired the observation of the journey also.

### 3.7 Data Analysis

Data analysis has a pivotal role in research; it is the process of meaning making and generation of ideas (Reichertz, 2014). This process uses forms of “*logical reasoning*” (Reichertz, 2014, p. 123) that allows a way of connecting and generating these ideas (Reichertz, 2014); induction, and deduction. Deduction uses familiar rules or predetermined themes or categories to analyse the data (Reichertz, 2014). It is more concerned with determining whether the pre-determined themes are true and correct (Reichertz, 2014). Induction allows the researcher to approach the transcribed interview text with an open and curious mind allowing things of interest, or that appear significant, to emerge (Neuman, 2003). By approaching the reading of the transcripts with an open mind the researcher becomes even more familiar with the text, marking excerpts of interest, looking for threads and patterns between the different transcripts that could be loosely categorised into themes (Neuman, 2003).

This study has a phenomenography methodology, which guided how the data were to be analysed, categorising the students’ descriptions using an inductive lens, “looking for structurally significant differences that clarify how people define some specific portion of the world” (Marton, 1986, p. 34). I read through all the transcripts and highlighted anything that seemed interesting or of relevance. To aid analysis of the data a deductive lens was also used. The theoretical framework described in Section 2.8 helped guide what may be relevant (Reichertz, 2014). I took these quotes, put them into another document and started grouping them by similarity, giving them categories. These categories were then analysed looking for the potential for it to be part of a larger category/theme (Marton, 1986).

Once all the excerpts had been thematically organised into files, each file was re-read, to check the fit of the excerpt within that category/theme, noting which appeared similar and indicated some explanation of the meaning of the phenomenon. There was also some setting aside of those that currently seemed to not quite fit within the file (Neuman, 2003).

It is important to note that, although I was trying to find meaning from the participants' perspectives, I played a role in the making of meaning and brought certain predispositions with me when reading the transcripts (Neuman, 2003). My prior reading of literature and observations of the students gives preconceived ideas on what I may see within the data. It is important to acknowledge that although I read the data with an open mind, looking at what I could discover, I was also not capable of completely 'bracketing' these preconceived ideas. What I needed to watch out for was trying to force excerpts to fit into categories (Neuman, 2003).

### **3.8 Research Quality**

Several steps were taken to enhance the quality of the data. During the journey and pre-journey I spent time building rapport with the students to help break down some of the power imbalance (Neuman, 2003) before interviews. Member checks were used in the form of getting students to check their transcripts for accuracy. While analysing the interview transcripts these were triangulated with the use of the photographs and my own observations from the journey to ensure context and meaning. There is also a clear audit trail of how data was collected and analysed through 3.6 and 3.7.

### **3.9 Ethical Considerations**

This research study was conducted in accordance with the ethics approval granted by the Faculty of Education Research Ethics Committee. Information sheets, which outline participant selection and requirements of participation in the research, can be found in Appendix A. Consent forms were required from students' parents/ caregivers (Appendix A), as well as the from the Principal and information was provided for the teacher. Copies of these can be found in Appendix E and F.

To prevent potential harm to the participants, the name of the school and city will not be used in either this thesis or any subsequent publications. Where the names may appear on any information or in transcripts, it was removed before putting in the thesis or any appendix. All students got to

choose their pseudonyms to help protect their identity. The students were taking photos throughout for use in the interviews; these photographs were used during analysis. No photos have been used in any publications to protect the anonymity of the participants.

There was a cost associated with this research and journey to cover the cost of cameras, accommodation, food, bike hire, and some of the experts that joined us for sections of the trip, plus running sessions post journey on environment actions. I was aware this cost could have excluded some students. For this reason in negotiation with the school, students paid only a small amount for the costs of the trip.

A potential area of conflict was with myself as the researcher also being a participant observer on the journey; I designed the activities of the club and journey along with the teacher. To try to minimise any potential conflict, experts joined us along the way to interpret the land, and the teacher used outdoor education students from a local polytechnic to do the instruction and running of the week. This way I was free just to be a participant observer of the journey. Again during the environmental action planning sessions, the school organised for two people from Generation Zero to run the sessions to avoid a conflict of interest for me.

### **3.9 Summary**

This chapter has outlined the methodology and research approach of this study. It shows why an interpretive lens was chosen and subsequently the use of a qualitative phenomenography design. That aimed to gain an understanding from the students' perspective firstly, on how they view 'their' place post the journey; and secondly, to gain understanding and make meaning of the students' motives and motivation either to take meaningful environmental action or not.

The chapter then went on to provide information about how the data were generated through the use of PEI and also semi-structured interviews, discussing their benefits and limitations. The research design was presented, including the participants, the research trip that the participants

were involved in and the specifics of the data collection. The data analysis process, informed by the phenomenography design was discussed. From this analysis, several categories or ways of understanding (Marton, 1986) emerged. Ethical considerations for conducting the research were discussed. The next chapter unpacks these categories and discuss the findings of this research.

## **4. Findings**

### **4.1 Introduction**

This study was designed with two parts to the data collection. First, there was the place-responsive outdoor education journey to foster an ethic of care in the student participants. At the end of the journey, photo-elicitation interviews took place and data was recorded to discover if any ethic of care had developed. In 4.2 this data is unpacked along with themes that emerged from these interviews, to see how this exploration of their place may have changed their perspective of their place, whether they gained an awareness of local issues and how important they felt particularly their peer group community was for the success of the journey.

The second part of the data collection focused on gaining an understanding of the participants' motivations to take environmental action, and whether the environmental advocacy sessions facilitated the students to turn their potential ethic of care into intrinsic motivation to take action. In Section 4.3, the data and themes that emerged are unpacked. What the students learnt about action, through planning, participating and taking action and what they learnt from action are discussed. Finally, what the students discussed around motivation to take further action and how they prioritise what is important is explored. Throughout Section 4.3, flaws in questioning through the second interview that could have elicited a full response are addressed.

### **4.2 Place-responsive journey**

From analysing the data generated by the end of journey interviews, four major themes emerged. The first theme was exploration of local places, which highlighted how much of the city and surrounding area the students had not visited or explored, and this filtered into their developing knowledge of the city, its history, wildlife and people, having quite an impact on how the students viewed the city. Travelling under their own steam allowed the students to see how accessible the city is. An influence that had quite an impact on the students over the week was the weather, as the week was quite wet and windy.

The second major theme to emerge was the formation of community, which highlighted how important the social interaction with their peers was to the journey, along with how they formed a temporary community, which included the leaders and different community members who joined for aspects of the journey. This was enhanced through the slower speed we were travelling at, and the knowledge the various community members shared with us. The students showed they had reflected on the journey in some way, and the final theme that emerged was a reflection of the journey, and this looks at the different reflections the students had post-journey. These general themes are used to present the data.

#### **4.2.1 Exploration of local places**

Exploration of local places is an important element of place-responsive pedagogy, helping learners to explore their place. Under this general theme, three themes emerged: new or different perspective, developing knowledge and values of place, and contextual factors.

In a pre-journey meeting, I asked the students what they liked most about their city. Most answers involved 'the mall' or 'can't wait to leave'. This journey around their place allowed the students to gain a new or different perspective of their city, as one student said, "It's just opened my eyes to the different things you could do. It's not as boring as I thought..." (Ivy, Interview 1).

This discovery of new parts of the city allowed the students to see that it was perhaps not as 'boring' as they thought, and the notion that there was, in fact, more to the city than they had discovered before was shared by five out of the six students. Evie expressed her surprise the most, as she was used to travelling for her fun and adventure, in saying "Like going all the way to [another area] to do all these fun things, you can just do it in your own backyard" (Evie, interview 1).

This new perspective allowed the students to develop an appreciation for their city that they hadn't had before. Realising there was more to the place than they first thought, Skye explained "I've never explored ... around that bit before so it's quite new to me, it felt like I was exploring [a bigger city nearby] like you know how [that city] is real big, it was like wow, I've never seen that before. It's like pretty cool" (Skye, Interview 1).

The nature of the journey travelling at a slower pace and under their own steam allowed the students time to think, observe and just take in their city, as Ivy explained "One of the things I liked most was probably the views that you saw when we were riding or like going on a boat or things, they were really nice to see ... I'm not usually out at those times, and it's good to see stuff like that ... going into the cave, I think we all enjoyed it. It was nice to just sit there and think ... and take it all in" (Ivy, Interview 1).

Travelling under their own steam and at that slower pace also allowed them to appreciate just how accessible the city and surrounding area is, as Leah explained, "It's not really as big as I thought it was... I have been to most of those places" (Leah, Interview 1). The topic of travelling under their own steam also appears under the contextual factors that have influenced their exploration of place. Appreciation of their place is another recurring theme that is expressed in the next theme to emerge from the exploration of place, developing knowledge and value of place, and then explored again in the general theme reflection of the journey.

From travelling around the city and having community members share their knowledge about their part of the city allowed the students to start developing knowledge and values of the place. One student shared how her appreciation of the city and what it had to offer began to develop from gaining more knowledge about the place, as she discussed a photograph she had taken, "This photo is of the sunrise at the [place], and it shows what it was like, the early mornings, and all the cool sunrises and sunsets and all the autumn views we got to see along the way" (Yasmin, interview 1).

All of the students mentioned that the journey allowed them to explore the city. Learning about different aspects of the city, including, just getting to know it better, as Yasmin explained “I feel like I know it a lot better and I didn’t know as many things” (Yasmin, interview 1), to how just being on a trip that has a slower pace allows you to be more open to what the place has to offer as Leah explained “ it made me like focus and look at different things, because most of the time with the school trips, you don't really think about the sort of, all that stuff, you just focus on the fact that it is a field trip away from school. With that sort of trip, you were there to learn, and you were there to think about the whole environment and the different stuff” (Leah, Interview 1).

Developing knowledge of the city included learning about both its history and some of the community members. These local experts shared their knowledge and stories with the students. The stories and knowledge allowed the students to learn about and get to know the places. These stories had an impact, and not always a favourable one, as Sophie explained her least favourite part of the whole journey, “ what I liked ... least about the journey was hearing about all the people who were sick and had to go over to [the] Island” (Sophie, Interview 1). Some of the students had been to some of the locations before. Leah was one of those students as she explained “I’ve been up Mount [nearby], ‘cos it was a school tramp and so you like had to do it, but there wasn’t anyone telling us about like the native forest and the history of it like Tahu did or like the herbalist, I’ve never heard anything about those plants or didn’t even know their names” (Leah, Interview 1).

The students discovered that there is a broad range of plants and wildlife within easy distance of the city centre. Through expanding their knowledge of what the city has to offer, Skye found it hard to contain her excitement at seeing a seal for the first time “I got to see a seal in real life, and I was so happy because it was amazing how I got to see one in real life” (Skye, Interview 1). Another two students also shared this amazement and

excitement that the wildlife, specifically seals, could be seen so close to the city centre. This positive emotion also flowed into the discovery of how useful some of the plants that grow around us are, as Yasmin shared “knowing there are good plants around so that we can actually pick up a certain leaf or something and make it into like a medicine” (Yasmin, Interview 1).

Interestingly, none of the students mentioned the edible gardens at the Polytechnic or the community garden we visited and picked some vegetables to add to our dinner. Perhaps this may have been due to some of the contextual factors that influenced the trip. The weather had a significant impact on us, with a lot of rain and the wind over the week. Half the students interviewed mentioned that this was, in fact, their least favourite part of the journey. Skye shares her account as the weather first hit “we had to climb up Mount [nearby]. It was real tiring and like challenging, but I still liked putting the effort in and then once at the top, straight as we got up there, it started raining so hard” (Skye, Interview 1).

Travelling under their own steam by biking was a contextual factor to have a positive impact on the journey, as one student said “It was fun just getting to the places we did, to the stuff we did. Whereas normally for school trips we would get the school van or ... the bus to take you out there, so it was nice getting there by ourselves and actually enjoying the getting there part” (Leah, Interview 1). Leah went even further and talked about the low impact the biking and travelling under their own steam had on the environment, potentially showing an ethic of care as she said “What I liked most about the journey was the places we went and looking back on where we had been... seeing how far we had travelled and how little impact it had had on the environment” (Leah, Interview 1).

The journey gave the students the chance to explore their local place, get to know the city and what it has to offer and to know the local community more. The students didn't know each other very well at the beginning of the journey, so some of the learning that took place was learning about

each other, with the formation of community on the journey. This theme is explored next.

#### **4.2.2 Formation of Community**

Getting to know your community is another important aspect of a place-responsive pedagogy. Getting to know the people, their stories and sharing stories with people allows you to get a deeper knowledge of your place. Two themes emerged under formation of a community: social interaction and importance of community. These two themes are strongly interlinked, as without social interaction there would be no community.

These students, although in the same year group, did not know each other well at the beginning of the journey. They had met a few times in the preparation sessions, and a couple of them were friends. Getting to know each other and the social interaction was an important aspect of the journey for the students, as Evie explained, “I enjoyed learning about new people and their experiences” (Evie, Interview 1). Ivy shared similar enjoyment about getting to know new people and sharing new experiences with them. Leah was a little less enthusiastic about having been put in a group of people she didn’t know and thought she would have preferred to go with her friends, but appreciated the chance to be with new people, as she explained “I probably wouldn’t have been with that group if I gotten to choose it, ‘cos I would have gone with more of my friends, but it was nice going with that group” (Leah, Interview 1). Four of the students specifically mentioned how important getting to know new people was on the journey. All six of them mentioned about having fun with their peers on the journey, highlighting how important this social interaction is for them. Evie picked a photo as one of her favourites “because it shows us all as a group and together, yeah, all having fun” (Evie, Interview 1).

The social interaction was important for the students. From this getting to know each other they formed into a community of their own, working as a team. Leah shared one of her photographs that explained what the journey was like for her, “This photo of us unpacking ... shows us or

shows what helped us get through the journey and like the way everyone had to work together to get everything done” (Leah, Interview 1). She went on to explain how they tried to ensure everyone was included and truly form a community at least for the duration of the journey, saying “we had to help each other a lot to get like through the journey ... there [were] people who found it kind of really hard and so like everyone just tried to include everyone ... just make sure that nobody was left out and that they enjoyed their journey as much as I guess everyone else did” (Leah, Interview 1).

The journey lasted five days, and at the end of this time, the group and instructors arrived back at school and this community they had formed disbanded. Yasmin shared that arriving back at school was her least favourite part of the journey, noting that “putting the bikes away at school ... that meant the camp was over and we weren’t really sure if we’d meet these people again and we’d had a really fun time” (Yasmin, Interview 1). Yasmin was the only student to verbalise any feeling of journey-ending blues.

As part of the journey, the students not only got to work together with each other forming a community of their own, they also got to engage with and meet other community members, as already mentioned in developing knowledge of the place. The community members shared their stories and information about the places we were visiting. From this, the students gained an awareness of local issues facing their place, and the next section explores this.

#### **4.2.3 Local issue awareness**

The journey opened the students’ eyes to issues that the different areas of their place are facing, as Ivy stated, “I didn’t really notice the issues before until they were kinda brought up” (Ivy, Interview 1). The students, thanks to the local experts involved, gained an awareness of these local issues. The way in which some of the community members presented the

issues helped some learning through action to occur. I now explore this theme of local issue awareness in more depth.

Of the many issues that the students were exposed to over the course of the journey two main issues stood out for them, the first being the issue of plastic waste and the impact it has on the environment. As Evie explained, “We learnt about plastic and recycling quite a lot ... and the impact things could have on the like wildlife and the community and everything” (Evie, Interview 1). The students were quite disturbed by the amount of plastic ending up in the environment and specifically the sea, as one commented, “Well it kinda makes me feel grossed out, ‘cos it's mostly plastic and straws, and that's just telling us most of our rubbish is actually going into the water” (Yasmin, Interview 1). More than the plastic ending up in the sea, it was the effect the plastic was having on the wildlife, specifically [birds] that had an effect on the students, as Skye explained, “We went to the [bird] colony, there was this [bird] who ... ate a lot of plastic in like toothbrushes and stuff, and it died because of eating the plastic ... I had tears in my eyes actually. It was real sad” (Skye, Interview 1). Three other students also really highlighted the impact of plastic on the wildlife and environment as the issue that really struck them on the journey.

The other issue that three of the students talked about was the effect that pests, and specifically the possum, were having on the environment. Leah lives on the local peninsula and explained her discovery of the possum problem and what is happening to improve this issue, saying “I liked doing the possum thing. I thought it was pretty cool ‘cos I hadn't heard about that, and I live on the peninsula, and it made me realise what was actually happening and I hadn't thought about that sort of thing, like I had seen the yellow possum traps but hadn't realized what they were for” (Leah, Interview 1). Sophie also explained her realisation of how possums affect our environment “I didn't think [our city] would actually be crowded with all these sorts of issues ... the possum ... I didn't think possums ... could affect the...[city] environment” (Sophie, Interview 1).

Not all the issue awareness was around the environment. Two of the six students interviewed identified as being Māori, and one of these students, Sophie, realised while on the journey just how important this cultural identity was to her identity. From this realisation, she identified that there is still often a lack of Māori culture inclusion and celebration integrated into the mainstream, as she explained “I see that most people actually shut out the Māori [culture]... like we learn their [culture instead]”.

From gaining an awareness of issues facing their place, three of the students mentioned how this affected them and they showed signs of an ethic of care developing for their place. Sophie was sad at the realisation that issues around the city could, in fact, affect the city. Ivy went on to say “I feel like if we all kinda helped it would change a lot and we would make it better” (Ivy, Interview 1). The theme of developing an ethic of care is explored more in the reflection on the journey.

The idea of taking some form of action, to make a positive change that Ivy mentioned may have come from the activity the students did at the [bird] colony. The activity introduced the students to the issues facing the area. The locals then facilitated removing the rubbish from the beach and planting sheltering flora, ensuring they also explored how this action may help the wildlife immediately in the area. One student made a connection to how the planting of flora may be a potential solution to an issue for penguins, as Yasmin explained “planting a plant at the [bird] colony and it's saying that... it's just bringing more shelter for the penguins to come and be sheltered” (Yasmin, Interview 1). Learning through action is explored later in this chapter.

This interview happened after the journey giving the students time to reflect on the journey itself. The final theme to emerge from the post-journey interview was a reflection of the journey. The next section explores this.

#### **4.2.4 Reflection of journey**

With the post-journey interview happening two weeks after the journey had ended, the students had time to self-reflect on what they had seen, experienced and learnt along the way. Three themes emerged from the interviews: sense of achievement, appreciation of place, and a sense of empowerment.

Two students mentioned a sense of achievement for completing the journey. Yasmin summed up the sense of achievement felt after completing the journey by saying “it was really fun and tiring at the same time” (Yasmin, Interview 1). One student had never slept in a tent before and really wanted to camp again. A couple of the students had mentioned that it was the working together that allowed them to complete the journey, as some students were struggling. This teamwork was explored in the theme formation of community but also highlights a sense of achievement felt.

Exploring the city, and gaining knowledge about the places and people allowed the students to feel appreciation for their city and what it had to offer. For Skye, a chance to reflect on the journey and her place allowed that feeling of appreciation for the city and beauty of the place, as she explained “This is my favourite photo from the journey because the sun[rise] is so gorgeous and it’s just so calm and peaceful. It was real cold on that day, it was morning like ... seven o’clock in the morning, and there was just a nice peaceful boat in the middle of [the harbour]. It was just so pretty” (Skye, Interview 1).

The students got to reflect on what they had seen, achieved and learnt along the journey. One student, Ivy, reflected on the sense of empowerment she felt from having participated in the beach clean-up, and the difference it could make “just a little bit everyone picked up made a big difference and it really helped because any of the animals, like penguins and things, could have died from just a little bit of that rubbish, so it was good we picked it up” (Ivy, Interview 1). This caring for how they could

positively affect the wildlife could be the start to an ethic of care for the place, which a couple of students discussed through gaining awareness of issues facing their city. Some of the reflection of the place-responsive journey happened during the environmental advocacy sessions. This theme is touched on briefly again in the findings of the next interview presented in Section 4.3.

#### **4.2.5 Summary of place-responsive journey**

The place-responsive journey was facilitated in 'place' allowing the students to experience the interconnection between themselves, community and place (Wattchow & Brown, 2011). This experience in place allowed the students to change their perspective of how they viewed the city. Realising the city is not only far more accessible than they believed, but there is far more to do here than they perceived at the beginning of the journey. Biking and being on foot was considered a fun medium for the students to use for travel. This travel medium also facilitated the slowness needed for students to see that you didn't need a car to access places. One student mentioned how travelling in this manner is, in fact, better for the environment, showing the beginnings of fostering an ethic of care for their place.

The very nature of the journey was to utilise authentic learning experiences that allow students to attune to the location. This contextualised learning meant students learnt about medicinal and edible plants along the way and discovered that their city had wildlife right here with seals in the harbor, eliciting a strong positive emotional response to the city environment. Interestingly, none of the students mentioned the living campus or edible gardens we visited and collected some food from.

The contextual factor to significantly influence the trip was the weather. Specifically, the wind and rain that arrived on the second day of the journey. Three students mentioned this inclement weather as a least favourite part of the journey. Although it did allow other students to show

appreciation for both the sun and sunrises they got to see later on in the journey.

The social aspect of the journey was of great importance to the students, all of them talked about some aspect of how important the relationship with the rest of the group was. Connecting with others, having fun, working together as a team to succeed and making new friends, along with that sense of loss at the closing of the journey were all mentioned in the interviews. Highlighting the importance of social interaction and how being part of a community in a safe environment is one link in helping us understand our place in the world (Penetito, 2008).

The students, as they travelled around, were introduced to many issues that the city faced. The issue that struck the students on an emotional level was the plastic waste and how this affected the birds, specifically [a bird] eating this, which as they learnt can cause death. Although emotionally learning about the effect the plastic waste had on the birds, the students were gaining a greater understanding of what was happening in their city, who already cared and how they could start to help heal the place (Wattchow & Brown, 2011). While at the [bird] colony they got to do a beach clean-up to see the extent of the plastic issue, this allowed a couple of the students to realise they could have a positive impact on the place through action.

One student's realisation that their action could have a positive impact on the place left her feeling a sense of empowerment for having made even just a small amount of difference. This caring about making an improvement shows this student fostering an ethic of care for her city.

Having a chance to reflect on the journey gives them a chance to interpret and reflect on the experience, this is an important part of the place-responsive journey as it allows them to draw meaning out of the experience. This reflection also allowed the students to gain a sense of

achievement for what they had accomplished, not only individually but also as a community.

The students had three environmental advocacy sessions after the journey to help them learn how to design and put an environmental action together. Part of these sessions involved more reflection on the journey, what they had seen, where they had been and what they had learnt or discovered along the way. The next section presents the findings from the second interview after the environmental advocacy sessions.

### **4.3 Environmental action**

After the place-responsive journey, the students had some environmental advocacy sessions; this was to facilitate reflection on the journey and the issues that they learnt about while exploring their place. The sessions also helped the students consider what kinds of action they could take in relation to their experiences, and potentially begin to take that action.

Each student participant was then interviewed. The interviews used Birdsall's (2010) three-part model for holistically teaching about, through and from action as a scaffold for designing the questions for data collection. These interviews were used to explore not only what the students had learnt about action, but also whether they had in fact followed through and taken action.

In analysing the data from the interviews that took place three weeks after the environmental advocacy sessions had finished, four general themes emerged. The first was learning about action (Birdsall, 2010), which highlighted how the students identified issues and were taught to think about finding solutions to the issues they identified. This involved reflection and utilised a group decision-making process that had some flaws when it came to keeping all students motivated. The students did some research on the issues they identified to enable them to start thinking about possible solutions to their issue.

The second general theme to emerge was learning through action (Birdsall, 2010). Students planned their action as a group, which led to differing levels of engagement and involvement due to time pressures from other classes and clubs they were involved in, motivation for the action that was finally decided on, motivation to actually take action, and illness. From looking at identifying issues that are relevant to them, learning to plan action and getting the opportunity to take action, the students also had the chance to learn from their action, which was the third theme to emerge.

A key question, though, was how they might have transferred this learning into their own lives. The final theme to emerge was pro-environmental behaviour, and this highlighted what the students prioritised, the links they made back to their lives and how what they say or think might differ from their actions. These themes are used to present the data from the second set of interviews.

#### **4.3.1 Learning about action**

Learning about action and how to create an achievable solution to an issue is important if we want students to feel success and realise they can make a difference (Birdsall, 2010). Under this general theme, two topics emerged: identifying issues and local issue awareness.

The environmental advocacy sessions began by getting the students to reflect on the journey they had been on, as Leah explained “we just like talked about what we did on the adventure and about the sorta things we learnt. What actions were possible, and like how they related to something we learnt” (Leah, interview 2). After identifying some issues through reflection, they then formed small groups and brainstormed ideas of what they could do, what interested them and connected to what they had learnt on the journey. Leah explained how it was also “something we could teach and then everyone came together and sort of put a list together of some possibilities” (Leah, interview 2).

It appears that two ideas were formulated in the group as Skye stated, “our group wanted to do like a fitness thing, and there's the other groups who wanted to do like recycling things” (Skye, interview 2). Recycling appeared to be the most popular option due to the emotional impact that the plastic issue had on the students, as Evie explained “we went to the [bird] colony, we saw that bird with all the plastic there, and we had to go down to the beach and pick up the rubbish, and on the island, Queenie, she told us about all the process that the rubbish had to go through and we thought, that would be a good thing [to do]” (Evie, interview 2).

They used a group decision process to decide what action they wanted to pursue and take. Exactly how this happened is a little unclear. Leah told me the group voted on which action to take through to the planning stage. Sophie felt “it was our ideas, but they [group leaders] chose it”. This difference in views may account for some of the participation and motivation issues that are discussed under the learning through action theme below.

Plastic and how it affects the environment, although not an exclusively local issue, has an impact on their local environment. As part of the learning, the students researched their waste and recycling habits around recycling, as Leah explained “we looked at what type of recycling we did at home ... so like what sorta bins we had to sort the stuff into and yeah, what kinda rubbish we had” (Leah, interview 2). After deciding on the issue they wanted to address and doing some research, they moved on to start planning the action. This theme is explored in the next section.

#### **4.3.2 Learning through action**

Learning through action is an important step for students if they want to find a solution to issues that a place has and that they see it is possible to do so. They need to plan the action and then carry out the action. These are two of the three themes that come under this general theme, with the third one being participation.

After learning about action, it was time to start planning, as Evie explained: “we planned an action on what we were going to follow through on, the things we learnt, and for that we chose recycling, so we learnt a bit about that and made a plan” (Evie interview 2). The actual plan was to teach how to recycle “with other schools and how we would like, help them know how to separate things” (Yasmin, interview 2). The process helped the students create a plan for the actual action they were thinking about taking. For one student she found that “the planning really helped you kind of like, look at what you actually learnt and like sort of process that more” (Leah, interview 2). None of the other students thought quite so deeply about what they had learnt. For Leah the environmental advocacy sessions allowed her to process what had been learnt along the way and help “bring back what you learned into your everyday life” (Leah, interview 2). How the students have brought their learning into their everyday life will be explored in the pro-environmental behaviour section. Extra questions that could have been asked at that point, to probe deeper into their learning, would have been what have you learnt about planning action? And what is action? These would have shown how effective the environmental advocacy sessions were.

It was during the planning phase that students’ participation started to vary. One student lost motivation, as Sophie explained when I asked her what she had been up to in the planning process “not really much. I’ve been in the background of the process ‘cos we chose to take the pre-school for little sessions” (Sophie, interview 2). Another student had told me what they had planned to do the action on, but could not say if the group had actually ended up carrying out an action.

The motivation for three of the six students seemed quite low to complete the planning for the action. This may have been due to the age group they planned to work with, or that they wanted more to do an action on fitness. However, Ivy gave a view of the group working cohesively together, as she explained that “I think I like how we worked together on this instead of going off into our own groups and doing our thing” (Ivy, interview 2).

The lack of motivation amongst some of the students appeared to show up in them prioritising and making time to meet up. As Yasmin explained “our group leader, she was trying to organise a time for us to meet up during like lunchtimes, but everyone was busy, or couldn't come or wasn't in school” (Yasmin, interview 2). It also appears time to plan and take action was an issue for them, as Leah explained: “At first we wanted to go to the primary school, but then we were running out of time”. For Ivy, she claimed to have the motivation to be involved. Unfortunately for her, she had in fact been off school ill for most of the time the environmental advocacy sessions had been running and then the subsequent final planning time.

I was interested to find out if any action had in fact been carried out. Evie was able to inform me of what had happened, saying “we went to, some of us, the kindergarten ... and we taught them about recycling”, yet explained she hadn't actually carried out the action herself. Leah, on the other hand, did get involved with taking action along with two other students, one of whom was not in the interview group, and she said “I really wanted to do it, and I enjoyed teaching the kids about it. I thought we were a bit rushed though, so it was a bit stressful, I guess” (Leah, interview 2). An action took place that two of the six students participated in, and the next section is going to look at learning that they took from the whole environmental advocacy sessions and planning for action process.

### **4.3.3 Learning from action**

Questions that framed data presented on this theme included ‘How successful was this action that the students took?’ and ‘Have they learnt anything from this process?’ Three subthemes emerged here: the amount of time involved in planning and taking action, the outcomes of the action, and reflection on the action.

The amount of time they had to plan and carry out the action was an issue that was raised in various ways by three out of the six students in the

interview. Leah was a little disappointed in the time available, as she explained, “the only problem was not everyone was involved, in the actual action. We ran out of time, but it would have been nice to, just sorta cycle through everyone so they could go over and actually get to do that, but, there was a problem with timing and probably not being organised enough” (Leah, interview 2).

Only the two students who were involved in the action in any meaningful way had any idea how successful the action may have been. Evie acknowledges she was more behind the scenes and helped with the planning, yet she felt it was successful as she explained “I think the kids would have learnt ‘cos we went there a few times. And yeah, I think it was a good thing as well to teach people near us, and they can give when they are older” (Evie, interview 2). You can see from her response that it 's hard to measure just how successful the action they took was. To explore this would have involved some follow up on whether the children continued to separate their rubbish and whether or not they took this learning back to their home. Evie made an intellectual assumption, one that is hard to measure regarding success. Leah, on the other hand, had taken a couple of photos while they were carrying out the sessions and felt it was successful as “I think it was quite good for the target group” (Leah, interview 2). From a photograph that she showed me, I could see they had planned some fun and interactive activities to teach the kindergarten students about recycling and what rubbish goes into which bins. Has she made an assumption that due to the kindergarten students having fun meant they have taken the learning on board and will continue to separate their rubbish? A follow-up question for both students would have been to probe deeper and ask not only if they think the action was successful but also ‘why they believe that it was successful and how they know?’ These questions would have facilitated some deeper thought and potentially would have got them to realise how hard it is to measure the success of this particular action. A further question would have been ‘what have you learnt through doing this action?’ or ‘What have you learnt about taking

action?’ This would have prompted some deeper thinking and perhaps facilitated some of the reflection needed to learn from action.

A reflective outcome of doing the action for one student was on being able to give back to the community, as she said, “I thought it would be really good thing to do and be able to give back to the community after they kinda gave to us during the backyard adventure” (Evie, interview 2). The final theme looks at whether the students actually changed anything in their lives after the place-responsive journey and explores whether any of the students felt they would continue to ‘give back’ or continue with any actions.

#### **4.3.4 Action competence**

One of the major objectives of this research was to investigate if the students would be motivated to take action if the scaffolding was put in place for them to learn about action and how to plan an action. The final part of the study was to explore if this would then give the students the resources that would have a long-term impact on them. This impact might include to modify their behaviour, to reduce their negative impact on their place (Kollmuss & Agyeman, 2002) or if they now felt empowered to continue taking action on either this issue, plastic waste or any other environmental or sustainability issue facing their place.

To explore if the students would continue any action they had taken I asked them if they would. I also probed to find if they had changed anything in their lives as a result of what they had learnt. From these questions, three subthemes emerged: priorities, extrinsic motivation and link to life.

Would the students continue to take any action? Three out of the six students replied they might take some future action. Evie, was the most enthusiastic stating “if there is something to do like volunteering or something, or like a community garden ... I think I would be pretty keen to help the community and give back some” (Evie, interview 2). This

indicated that she had gained the motivation to want to take further action. Evie then explained, “I am doing a Hillary award, the young New Zealanders, and for that one of the things is volunteering or some community service type stuff” (Evie, interview 2). Evie's motivation may then have also been stimulated from an extrinsic source of completing her Hillary award, which is a three-level award to help students “become the best version of themselves” (DofE Hillary, 2017). The journey had then perhaps provided a vehicle for her to achieve that and from the experience of the journey and the desire to gain the award, an action may come. Ivy also had an interest in continuing to take action “I want to do a project for myself which was for the pest thing” (Ivy, interview 2) and when probed further, like Evie, she had an extrinsic motivation to continue taking that action, as Ivy explained “they did mention money, and that's always a motivation” (Ivy, interview 2).

Leah didn't have any extrinsic motivation to encourage her to continue taking action, but there is a chance she may still do so, as she explained “I'm not sure [if I'll take any further action] I ... we are all quite busy ... I would like to do something ... possibly next year join the enviro group or Interact or something, which does like service stuff” (Leah, interview 2). This indicated that currently she wasn't prioritising taking environmental action. It would be of interest to go back and see if she actually continued to be too busy or prioritised joining one of these groups. The other three students didn't see doing any action as a priority. All three stated they were too busy and didn't have time.

The final question I asked the students was if they had changed anything in the way they live as a result of what they had learnt during the journey or from the environmental advocacy sessions. Skye explained that she had learnt it was good to reduce the amount of plastic waste “because it'll make New Zealand more healthy and clean and looking nice” (Skye, interview 2). When probed further to see if she had changed anything about the way she lives her answer was “No” (Skye, interview 2). On the one hand, she understands why it might be important to reduce the plastic

waste and yet hasn't managed to follow this through to see how her behaviour can affect this issue. Suggesting that although she sees a need for a pro-environmental behaviour value, non-environmental motivations of convenience are stronger (Kollmuss & Agyeman, 2002). Only one of the six students made the connection that their behaviour could have an effect on the issues of their place. Leah explained, "I am more aware of stuff and like how much food we kinda put away, like waste, and my lunch box, I've tried to use more sustainable kinda wrapping for my food" (Leah, interview 2).

Of the six students, one student, Leah, reported some pro-environmental behaviour by looking at her lunch box and thinking about reducing waste and plastic within it. Two more students had extrinsic motivation to continue to take some form of action. Potentially showing pro-environmental behaviours, this would need follow up to see if the students did join their group or create their own pest project. Finally, Leah also mentioned, if she found the time that she might join an environmental group at school, and again follow up would need to happen to see if this ever happened. This means of the six students interviewed, only one student actually reported having sustained any pro-environmental behaviour at the end of the environmental advocacy sessions.

#### **4.3.5 Summary of environmental action**

According to Birdsall (2010), there are three important aspects to environmental action: learning about action, identifying issues, researching them and thinking about possible solutions; learning through action, doing it; and learning from action, giving the students an opportunity to reflect on the action they took and on how successful the action was. The environmental advocacy sessions were designed to facilitate the students through a process of learning about action (Birdsall, 2010). From here the students got to experience how to plan an action and some of the students got to experience taking action. Jointly, this is learning through action (Birdsall, 2010). The second interview with each student explored how the environmental advocacy session went and what they had learnt. It also

indicated if any of the students had taken action and if any of them felt motivated to continue taking action.

Through the environmental advocacy sessions, the students were facilitated through a process to reflect on the place-responsive journey, looking at what they did, learnt and saw along the way, identifying some of the issues facing their place through this reflection that interested them. The group used some form of group decision process to decide on which issue to continue pursuing.

The emotional impact on the students that plastic waste has on the local fauna and landscape motivated the students to choose this issue. It was an issue they could see the relevance of (Lundholm et al., 2013). The students researched the issue by looking at their own rubbish disposal habits, then brainstorming potential solutions (Bolstad, 2003).

With the questioning in the interview, I explored what they actually did and how they achieved that. Further questions to ask would have been 'what have you learnt about identifying issues you are interested in?' and 'what have you learnt about creating solutions to issues that you have identified?' These would have given the deeper understanding to see what if any learning had occurred that may be applied to other issues.

After deciding on their issue, the students set about planning their action. For Leah, this helped her process the learning more and look at how she could integrate some of the learning into her own life. It would have been beneficial to have probed deeper asking what they had learnt about how to plan an action, again to see if there has been any take away learning.

During the planning of the action participation rates started to dwindle. One student was unwell and off school during many of these weeks. For other students, their motivation was low for either the age group they were to work with as part of the action or for the actual action itself. This highlights the issue of attempting to find an issue for a group to collectively

work on. What they believe to be important can differ considerably from each other (Lundholm et al., 2013). This dwindling motivation from the students left only two out of the six even participating in the actual action; high motivation to be involved was the difference between them and the others. It would have been appropriate to ask all the students what they thought action is. This would have given some insights into the learning that had occurred about environmental action.

The students who participated in the action reflected on the process and anecdotally thought their action had been a success. They had no way of actually measuring the success of the action due to the nature of what they decided to do. Probing deeper here and asking why they believed it was a success and trying to get them to articulate how they thought it was successful may have helped them to think about what they may have needed to do to measure the success.

There was also a missed opportunity to find out what all six of the students had learnt from this whole process and asking a question to get all of them to reflect more deeply could have been quite fruitful. One student did offer her learning about how hard it is to organise and motivate a group to take action, and this could just be a further reflection on some of the students' motivation and engagement with the chosen action, but also how the students' prioritise what is important.

So had this process given the students the scaffold to develop an intrinsic motivation to act (Bolstad, 2003) or at least develop some action competence? Three out of the six students explained they might take further action. Two of these had an extrinsic motivation to do so, suggesting their behaviour is potentially just being manipulated by the incentive and may only last as long as the incentive is there (Steg & Vlek, 2009), or may be the early development of action competence. The other student was interested in joining a group the following year; it just depended on how busy she felt she was.

One of these three students had made a link to how she lives and adjusted her lunch box to decrease the amount of single-use plastic she used, suggesting altered behaviour here. This student made the connection between the plastic in the sea, effect on marine life and that she could play a part by reducing the amount of plastic she used demonstrating action competence. The other three students just felt they were too busy, and is perhaps an indicator of a lack of involvement with their community (Steg & Vlek, 2009) or their own resilience and ability to look beyond themselves (Fredrickson, 2013). Being engaged with your community and or ability to look beyond yourself are important predictors of people more likely to engage in at least pro-environmental behaviour (Steg & Vlek, 2009) or action competence. I come back to these ideas in the next chapter.

#### **4.4 Case Stories**

In this section I present brief case stories on each of the six participants, in order to give some depth to their individual experiences of place and development of an ethic of care to act.

Evie was 15 years old, female and of European descent. Evie had been to the Island before and also spent lots of time around [the] Gully both walking and using the BMX track. She also goes for walks with her family often. Throughout the journey, she was always quietly engaged and focused. Evie was used to travelling away from the city for fun and adventure, so was surprised to discover that you can do these things in your own backyard. The biking around the harbour helped facilitate this change in perspective and one that she found a fun way to experience her city. The social aspect of meeting new people, learning about them and making new friends on the journey was an important part of the trip for Evie. The inclement weather was one of her least favourite aspects of the journey. The rubbish process, our environmental footprint and specifically how the plastic waste negatively affects the marine wildlife had an enormous emotional effect on her leading to her involvement in the environmental action in a support role. Evie was looking at doing further

action or community service due to doing the Duke of Edinburgh Hillary Award. This may give her the motivation to take further action, although at the time, she felt she was too busy.

Sophie was 14 years old, and is of Māori descent. Sophie really enjoyed the social aspect of the journey and spent a lot of time talking with the adults who came in and out over the trip. Sophie particularly enjoyed the cultural dimensions of the journey and specifically the fact the journey started with a karakia, then having this unpacked to elaborate on how we, but specifically Māori, are connected to the land as guardians (Irwin, 2008). She talked about how important her Māori heritage is to her. The journey gave her an awareness of how often within normal education and life it happens from a Pākehā perspective (Irwin, 2008). I think Sophie has struggled to be accepted back at school, for her while on the journey she was “really happy...it was actually fun time to be going out and exploring” (Sophie, interview 1). Sophie wasn’t ready for the journey to be over, she felt that sense of loss, perhaps as she found acceptance with her peers while on the ‘adventure’. Sophie lost interest quite quickly in the action as she didn’t want to work with such young children in the preschool. Her answers in the second interview showed she started to disengage with the process quite early on. As far as taking any extra action, she felt too busy at that present time to think about it.

Yasmin was 15 years old, female and of European descent. It was often hard to tell how engaged she actually was. For Yasmin, she hadn’t visited any of the places on the journey before, except at the end of the harbour, which her dad used to take her to. The journey opened her eyes up to what her city had to offer. From this new perspective, one of her favourite photographs showed “how beautiful the sea and harbour can be” (Yasmin, interview 1). Developing her knowledge of place Yasmin was amazed to discover that you can pick leaves of plants either to eat or for an herbal remedy. Yasmin found the biking to be both a fun way to travel, but also very tiring. Having never been camping before, the one night in tents was a highlight for her. The end of the journey brought a lot of uncertainty for

Yasmin. She had that feeling of sadness and loss as we were tidying up at the end, uncertain if she would meet some of these people again. The journey and community may have given her a sense of belonging and connection she doesn't feel in her normal life. With the environmental advocacy sessions, Yasmin participated in the initial session to learn about environmental action, but her motivation then petered out quickly. When asked, she was unaware of what action if any the group had taken. Managing to find time to meet the group was one of her issues. Yasmin felt she was too busy at the moment to manage to be involved with or take any further action.

Skye was 14 years old, female and of European descent. Skye had been to the Island once before, but hadn't realised it was "just there" in the harbour. She found the journey to be a challenge and quite difficult at times. She was quite amazed to discover that there was so much right here in her own city that was close by, particularly seals as it was the first time she had ever seen them. Friendship was important to Skye, with one of her favourite photographs depicting her friends with a sunset behind, mentioning how happy she was at that moment in the photograph having all her friends there, hinting at the importance of the community they formed. Skye was emotionally affected when learning about the plastic waste in the oceans and how it affects the marine life. Skye wanted to get people outside and active as the group action by running morning fitness sessions. It appears her small group could have continued with this action, but they needed permission from their deputy principal, and they didn't get around to doing this, and when questioned more, it appeared to come down to prioritising it, as they were busy with other things. With the larger group choosing to look into recycling and plastic, Skye lost motivation quickly and freely admitted she had nothing to do with the action. The impact of the [bird] dying from eating the plastic still had a significant impact on her. There appeared to be no link for her between how she lives and how that could affect the amount of plastic going into the marine environment. Skye was quite young still, and perhaps this understanding may come with age and later reflection.

Ivy was 14 years old, female and of Māori descent. She had driven past places we visited on our journey, but never stopped and explored. For Ivy, the journey made her realise the city isn't as boring as she thought and that it is all within travelling distance by bike. The social aspect was of great importance as she didn't know any of the other students on the trip very well and loved making a connection with them. Ivy was away from school with illness for nearly all the environmental advocacy sessions, meaning she did not take part in the action. For Ivy, she thought it was an excellent opportunity to organise and take action as one group, knowing they would probably never work together again. I feel if it were not for the illness she would have been involved, she certainly seemed motivated enough and was motivated to pursue another action on pest control potentially, with one motivator being money, but it could be the beginning of other actions.

Leah was 15 years old, female and of European descent. Leah had been to most places we went to on the journey, the island was the only place she hadn't been before. Leah throughout the whole journey was engaged and asking questions. She quickly stood out as a natural leader. For Leah, the fact we biked everywhere rather than jump in a van made the trip for her, as she noticed so many more things. Leah had been to several of the places before, but never felt she had learned about them before. Learning about the plastic waste and how it affects the marine environment left Leah feeling rather guilty. She obviously thought about this and on getting home changed her own habits, by trying to remove single-use plastic from her own lunchbox. Leah is quite a deep thinker and she seemed to care about how we are affecting the planet, from her talking about how we waste food to how we have altered the habitat for the seals and penguins. She noted how the cold and rain did affect her ability to learn and enjoy some of the community members that came in for different sections of the journey. When we got to the environmental action, Leah took on the leadership role to help organise people to meet up. She also got involved

with the action herself. She was motivated to join an environmental group at the school next year potentially. It would just depend on her workload!

#### **4.4 Summary of findings**

This chapter has explored the major themes and sub-themes that emerged from the two sets of interviews. The first part of the research was to connect the students to their city and ecosystem; encompassing the social, cultural, geographic, historical and natural environment (Bowers, 2008; Brookes, 2002; Preston, 2004). The interviews from the place-responsive outdoor education journey showed the students had got to explore their city and the geographical and natural environment. This allowed the students to realise there is far more to their place than they perceived before going on the journey. This discovery meant the students developed or changed their perspective on their place.

The nature of the journey using a slower pedagogy (Nakagawa & Payne, 2017; Wattchow & Brown, 2011), using bikes and foot as the modes of transport, not only allowed the students to slow down but also facilitated the opportunity for the students to be engaged and attentive to where they were (Wattchow & Brown, 2011). The authentic learning experiences (Beames & Brown, 2016) the students got along the way developed their knowledge of, and value in, the city, particularly realising that there was wildlife that they had previously been unaware of.

The students really valued the social aspect of the journey, forming their own temporary community (Smith, Steel, & Gidlow, 2010). One student even mentioned how they got through by helping each other out, utilising their own strengths to help others (Berman & Davis-Berman, 2005). The community members they met along the way made the students aware of local issues, with the impact of plastic on the marine life emotionally affecting the students. Learning about your community would involve learning about the cultures that make up your community. For one student the journey made her aware Māori culture is often not included in her everyday learning and life. As she affiliated with being Māori, this made

her feel a sense of loss, and which could potentially prevent her from fully connecting with her place and own identity (Penetito, 2008).

The interview itself allowed the students a chance to reflect on the place-responsive journey. The photographs encouraged the students to access their memories, feelings and reflections of the journey (Miller, 2015) which would allow them to make sense of their experience. Through this reflection one student realised that their actions could have a positive impact, leaving her with a sense of empowerment, showing this student was fostering an ethic of care.

The first interview was to explore whether the journey had helped foster an ethic of care, then to see if through the facilitated environmental advocacy sessions the students would take action at the end and whether they may have gained an intrinsic motivation to continue to take action. During the initial stages of the environmental advocacy sessions when learning about action (Birdsall, 2010), the students were engaged and enthusiastic. The sessions then lead them on to learning through action, starting with how to plan one (Birdsall, 2010). This is where students' motivation started to decline, and with differing priorities and deadlines, it appeared finding a time they could all meet was impossible. This could be highlighting the divergent views of the group on what was, in fact, an important issue to be working on (Lundholm et al., 2013). By the time they got to the point of taking action, only two out of the six students participated. These two students felt their action had been a success. However, a flaw in the interview was not ascertaining what they had actually learnt about identifying researching and planning environmental action. Other questions for further exploration were how to know if your action has been successful, and what has been learnt about taking action.

The final part of the interview examined if the ethic of care the place-responsive journey may have fostered had been transformed into intrinsic motivation to take action (Bolstad, 2003) or develop any action competence. The environmental advocacy sessions were designed to give

the students the scaffolding needed to develop an action. Three out of the six students suggested they might take further action, but only one of those could be seen as intrinsically motivated, and that would depend on how busy she felt she was. One student had the prospect of money as her motivator, and one had to complete some form of service for an award she was taking. The other three students all just felt they were too busy. One student was now displaying some action competence as she was trying to reduce the amount of single-use plastic in her lunch box.

In the next chapter, I discuss the analysis of the data and link it back to the literature to draw some conclusions, and reflect on how I could perhaps have got the students more involved with their community and perhaps given them a greater chance of success with becoming motivated to take action.

## **5 Discussion and Conclusion**

### **5.1 Introduction**

In this chapter, I start by discussing my findings and relating them back to literature and consider the two questions that this study was attempting to answer. The chapter then moves on to discuss the limitations that this research had, before concluding what this study has tentatively found. This thesis ends by suggesting some implications and recommendations for practice and further research.

### **5.2 Discussion of findings**

This study aimed to address two questions: Firstly, how does a place responsive outdoor education journey influence an 'ethic of care' in secondary students; Secondly, how does any 'ethic of care' developed from a place-responsive outdoor education journey motivate students to act to care for the place? The findings related to these questions are now discussed in turn.

#### **5.2.1 How does a place-responsive outdoor education journey influence an 'ethic of care' in secondary students?**

In response to this question, several points emerged from the findings of this research. These included: the significance of a slow pedagogy, the role of contextual factors, the importance of community and social interaction, and the role of reflection in interpreting and drawing meaning from experience. I now discuss these in relation to the current literature.

The journey used a slower pedagogy (Nakagawa & Payne, 2017), initiated by the students travelling under their own steam. This speed allowed the students to engage with their city in a manner they hadn't done before, as usually they were driven to locations. During the journey, the students biked or walked. This transition to a slower pedagogy adjusted the way the students experienced the city over time and distance. This slower pace seemed to allow them to appreciate and engage with where they were (Wattchow & Brown, 2011). Being based in the local environment (Hill, 2013), all the students appeared to have changed their perspective on the

city, gaining a great appreciation for the place they live and what it has to offer. This response appeared to stem from the authentic learning that was attuned to the location (Beames & Brown, 2016) and elicited positive emotional responses from the students about the city environment. Biking was considered a 'fun' mode of transport and way to get around, even if hard work at times.

It is possible that for some students they could have needed more time in some locations to start to feel they were getting to know the place, and experience its beauty and wonder (Hill, 2013). This need for more time may account for why the students never mentioned or appeared to remember some parts of the journey. Getting the speed of the slow pedagogy right for everyone is a difficult task. Some may need more time in place, and others need to be moving through to get the enjoyment and engagement necessary to experience the landscape positively (Nakagawa & Payne, 2017). Perhaps it was too fast or for that matter too slow, and they were just never quite present at that location (Nakagawa & Payne, 2017).

The weather was a contextual factor that influenced the students' experience of exploring their local places. Half the students interviewed commented on the inclement weather we experienced on the second and third day. It is possible that the 'bad' weather may have been good learning for the students, making it more memorable than if it had just been sunny (North, 2015). One student mentioned the rain and the wind that came in while tramping, another about the wild waves during the boat trip to the island. Suggesting the discomfort and difficulty the inclement weather brought, it allowed them, with reflection, to re-story these days into a heroic adventure (North, 2015). The wet weather for that short duration may also have in fact helped enhance the sense of community the students felt during the journey (Breunig, O'Connell, Todd, Anderson, & Young, 2010).

The social environment the journey offered was of high importance to the students, from getting to know new people and having fun, to working together to achieve the journey and utilising each other's strengths. The students seemed to have an awareness of the temporary nature of their community, commenting on the sadness and sense of loss at the closing of the journey. Being part of a community is one vital link towards our sense of belonging and finding our place in the world (Penetito, 2008). These findings agree with those of Loeffler (2004) and Breunig et al. (2010), and illustrate that shared outdoor experiences can help form a community, even if it is only a temporary one (Smith et al., 2010).

These feelings of being part of a community were extended by the opportunities to meet members of the city community. These community members joined us on the journey to share their knowledge, stories and expertise on the places or locations we visited. This sharing gave the students new insights about their city, about the history, the culture, what happened in these places, and some of the issues these areas face. Getting to know our place and people is a major step towards belonging and connection (Penetito, 2008; Wattchow & Brown, 2011). Wattchow and Brown (2011) would suggest it is about apprenticing ourselves to place, which is an important step towards place-responsiveness.

The students learnt about many issues their city faces through the community involvement. One problem (plastic waste) stuck out for all the students; it had quite an emotional effect on them. Environmental issues can motivate students to have an emotional connection and engage in an issue as they are emotionally charged (Lundholm et al., 2013). This emotional connection is potentially showing the development of an ethic of care for this issue. The students gained knowledge and an understanding of this issue and how it affected their city and the marine life. They also experienced, to a small extent, how the problem affected their city, with the beach clean-up and planting for penguin shelter. This knowledge was learnt authentically due to the learning happening in the real world (Beames & Brown, 2016). They were learning about their city and how

they fit into it, engaging both the students' heads, gaining knowledge about their city, and their hearts, through a change in attitude or perspective towards their city (Barker & Rogers, 2004). The students got to experience using their hands (Barker & Rogers, 2004) through a beach clean-up and then planting to give penguins cover. Barker & Rogers (2004) suggest that although this is an action, in the sense of environmental action it is missing the students having an input in the decision-making process. This action did allow a couple of students to realise that they could have a positive impact on the place, showing that these two students cared about having improved a part of their city and were fostering an ethic of care.

A key aspect of place-responsive outdoor education is for students to interpret and reflect on their experience and meaning of the place for them (Wattchow & Brown, 2011). Throughout the journey, students were encouraged to take photographs which were used to prompt memory as part of the end of journey interviews. The interview itself was part of the reflection process for the students on their experience; what they had seen, what they had learnt and the connections they may have made. During the interview, there was this sense of achievement at completing the self-propelled journey, both personally and socially as a group, with two students specifically mentioning it. Brown (2012b) also found that the completion of a self-propelled journey elicited a sense of pride and achievement. The reflection during the interview highlighted how the exploration of the city using a slow pedagogy and gaining knowledge of their place allowed a feeling of appreciation for the city to emerge. Again this agrees with Brown's (2012b) findings.

The journey was developed using Wattchow and Brown's (2011) four signposts; being present in place, the power of place-based stories and narratives, apprenticing ourselves to place, representation of place experience. These were used as a scaffold to design the journey. In reviewing the data and seeing the emergence of themes, it became apparent that these are not four separate entities in creating a place-

responsive journey but are in fact intertwined, and form a web structure around the journey.

The place-responsive outdoor education journey allowed the students to be present in place, exploring their city, gaining a new perspective and greater appreciation for what is there (Wattchow & Brown, 2011). The students learned about the history, culture and stories of their community, as they too added their own stories and created their community. Through this creation and re-creation of community, they began an apprenticeship to their city and potentially developed a sense of belonging (Penetito, 2008). Through reflection, both during and post the journey, students' perceptions of the city changed. The city now represented somewhere that they had a deeper connection to and was more than just shopping malls. It had wildlife and bush, was accessible by bike, but also had its issues. More than that, the journey gave the students their own stories as a community in it. If we consider the model presented earlier (see Figure 2.1), the 'fun', slow mode of transport, the creation of community, the stories both learnt and created were the enablers that allowed the students to transition between the signposts. The relationships with each other and the wider community members were the most significant enablers the students mentioned to help deepen their experience of their place.

The place-responsive outdoor education "is an active journey towards belonging. With belonging comes connection and the development of an ethic of care" (Wattchow & Brown, 2011, p. 196). The students displayed an emotional response to the plastic waste and how it was killing marine life, specifically the [bird species], suggesting that they cared and connected to this issue. Such an emotional response led two students to go further with their care over having made a positive impact on their city with the beach clean up. It appears that the opportunity for these students to participate in a place-responsive outdoor education journey has the potential to develop an ethic of care for the environment and their city at this age group. To completely appropriate space into place may require

further visits and experiences that could transform their tentative connection into an attachment for the areas and their city (Benages-Albert, Di Masso, Porcel, Pol, & Vall-Casas, 2015). I now discuss if this developing ethic of care can be transformed into motivation for the students to act for their place.

### **5.2.2 How does any 'ethic of care' developed from a place-responsive outdoor education journey motivate students to act to care for place?**

The findings in response to this question had several points emerge: loss of engagement at planning the action stage, motivation and priorities, and action competence.

The environmental advocacy sessions started with participation from all the students. They reviewed the journey and discussed the issues they came across while exploring their city, looking at the issues that they were most interested in and generating ideas for potential actions they could take. This connects apprenticing self to place and representation of place to learning about action. The time came to decide which action or actions they were going to continue researching and designing. The students decided to vote on it as a group, leaving one student feeling like she was disempowered and unsure of the group process. This was a barrier for this student to continue progressing to learning through action. Another student felt it was great that they were doing this as one group, one community. It would probably be the last time they worked together as one group; this could be seen as one of the enablers for this student to continue and learn through action. It was at this point some of the students started to disengage with the process. The action was chosen and initiated by the students, which Lundholm et al. (2013) suggest as of great importance to keep students engaged. The students had differing viewpoints on what was an appropriate action to take, with some students wanting to focus on fitness, others wanting to work on recycling with a different age group. These findings agree with Lundholm et al. (2013) that how relevant the students see the issue or action to be affects how

engaged they are in the project. Part of this disengagement may have come from the power relation between the students, with some feeling uncomfortable to share their opposing views in the group at the time of deciding on the action to take (Lundholm et al., 2013). The students' choosing the action to take is another of the enablers. The fact, not all the students felt this was the most appropriate action to take was one of the barriers for some to move to learning through action.

Many of the students quickly became too busy to attend planning sessions (Kollmuss & Agyeman, 2002). Consequently, the more motivated students just continued with the planning and then action. The action would have evolved in those meetings, which may have reduced the relevance even further for the students who didn't attend, also further reducing their motivation. This drop in participation and motivation could have initially stemmed from social pressures and how the students prioritise what is important (Kollmuss & Agyeman, 2002). Most of the students had pressures from many places, as they were involved in many other activities at school, indicating that you may show concern for what is happening, yet this concern can often fail to translate into a willingness to take action due to a lack of commitment to their beliefs (Maxwell-Smith, Conway, Wright, & Olson, 2016). One student indicated an understanding of a need to reduce plastic use and to start to display pro-environmental behaviours in this area, yet when asked if she has or would change anything in what she currently does, she answered no. This possibly illustrates cognitive or affective dissonance, as for her to change is too hard, and she has justified this to herself in spite of the belief of a need for change (Beames & Brown, 2016).

Would this lack of commitment by some continue, or would these students begin to display some action competence. The two students who were involved in the environmental action both commented that they would, supporting the idea that going through the process of learning about, through and from action strengthens the ethic of care for place. Leah reported displaying action competence by removing single-use plastic

from her lunch box. She was keen to join an environmental group at school the following year, as long as she didn't end up too busy. Evie may not have changed her behaviour, yet was also going to be doing some form of community service the following year as part of an award she is completing. One other student was possibly going to do another action motivated by money. For these students, their motivation may be coming from an extrinsic place, but this is an enabler for them to continue taking action.

Why did these three students seem to be displaying some action competence, when the other three had decided they were too busy? Evie has spent plenty of time in the outdoors riding her BMX and walking with her family, Leah also spends time in the outdoors around the city having visited everywhere we went on the journey except the Island. The other student potentially going to take action had driven past but never explored any of the places we explored on the journey. Evie and Leah have spent the most time in the outdoors in their city, suggesting a stronger connection to the place due to repeated visits (Benages-Albert et al., 2015). Place (2016) found that one consistent influence on some of our past conservationists is spending time outdoors, developing place attachment leading to the development of environmental attitudes. Ivy seemed more motivated by the potential of earning money through time spent in place, an observation agreeing with Steg & Vlek (2009) that reward can change behaviour. The unknown is whether this behaviour change would last only as long as the reward is seen as valuable, or if more lasting action competence would form.

These findings seem to indicate that an ethic of care developed from a place-responsive journey does not necessarily motivate students to take action, even using environmental advocacy sessions to help guide them through. A significant contributor may be how relevant the students think the action to be taken is when working in a group on an action, how comfortable in taking the action they are or whether they believe it will change anything. Feeling too busy to contribute is another factor that

influences students' engagement. Those students who had more connection through previous visits and time in place showed a greater development of action competence.

### **5.2.3 A revised model of findings**

This discussion of the findings against what the literature has suggested leads to a consideration of a revision of the model presented in Figure 2.1. In this revised model below (see Figure 5.1) the connection from learning from action to further learning about action has been removed as the students gave no evidence that this had occurred. With a more measurable action and facilitated reflection, this potentially could have been rectified. The connecting line between learning from action and representation of place has also been removed as again the students did not indicate that taking the action and the reflection they did on it had influenced, changed or affected their representation of the city. With a more facilitated reflection looking at the success of a more measurable action may have kept that link. The threads (blue lines) of the web depict the enablers that allowed the students to connect the varying parts of the web and connect with their city. The specific enablers that helped the students have the ability to be present in the place, learn and share stories of the place, apprentice themselves to place and shaped how the place was represented by them as discussed in 5.2.1.

The students transitioned to learning about action and this is where the first barrier (solid red line) prevented the students from continuing through the web as discussed in 5.2.2. Although some students saw the group action as either inappropriate or unachievable, this wasn't the case for all of the students, hence the blue line continuing to learning through action. The second barrier is potential cognitive/affective dissonance preventing the students moving from caring to having a motivation to act (see 5.2.2 for more detailed discussion). Another potential barrier at this point could actually be the incomplete learning about action as many disengaged after learning about action and have therefore not learnt about planning, taking or reflecting on action.

The blue line that manages to go through the final barrier suggests that you may need to go around the web depicted in the model (figure 5.1) multiple times to deepen the connection and belonging to place, before an ethic of care and belief that actions can make a difference are strong enough to lead to motivation to act (see discussion in 5.2.2). This deepened sense of connection may also reduce the barrier of being too busy, that many of the students put up as the reason for not following through on their learning about action or going forward to take any action.

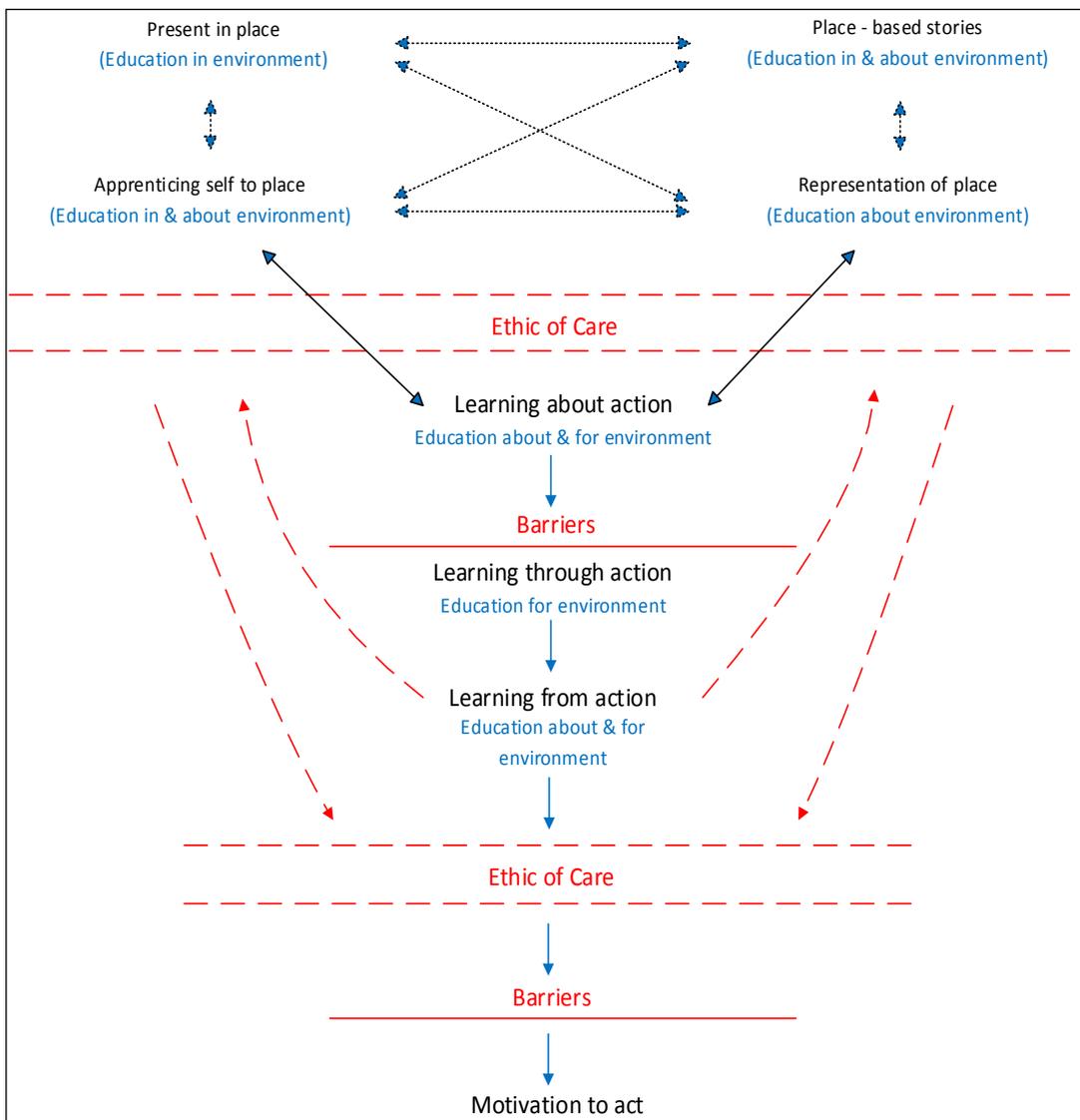


Figure 5.2 Revised model of findings

### **5.3 Limitations**

The findings of this study are very tentative due to the challenges of getting the data due to my injury and only using data from six students; the findings should not be used as a generalisation, but an indication of what may be found from a place-responsive journey.

As the extent of my injury became apparent several amendments were made to the study; the first was how I had to amend my involvement in the journey. Although I still went on the journey, my observations were very ineffective. Not realising the seriousness of the injury and or wanting to waste the data, I persisted with the research, completing the first set of interviews. I was unable to observe the environmental action sessions. I feel that I would have a better understanding of the process, as the researcher, had I been at these sessions. Not being at these sessions meant there was no one to hand out the cameras and remind the students about taking photographs. Consequently, they forgot and the second interview ended up as a semi-structured interview rather than being driven by the photographs. However, striving to ensure the data was not lost I embarked on the interviews. I learnt that interviewing is quite a skill, which I feel improves with practice. You need to be able to respond to what the students are saying and ask clarifying questions. At the time of these second interviews, I was too unwell to perform this task well; I persisted to ensure I gained some data. The consequence was missing some questions to elicit the answers for questions around what they had learnt about planning and taking action.

### **5.4 Conclusion**

From the findings, tentatively the following conclusions can be drawn.

A place-responsive journey using a slow pedagogy can change the students' perspective of place, and be a fun medium that develops a sense of achievement (Brown, 2012b). They learnt about their city, culture, history and people (Penetito, 2008). Learning about place can lead to

learning about the issues facing the place. My findings agree with Wattchow and Brown (2011) that a place-responsive journey can start to develop an ethic of care for place.

The social interaction seems to be an important enabler for the success of place-responsive pedagogy and of high importance to the students, with the shared experience helping form a community (Breunig et al., 2010; Smith et al., 2010). It aids in getting to know your people and in creating stories of your own with these people (Penetito, 2008).

The environmental advocacy sessions were designed to facilitate the students to transform any ethic of care into action. The students decided to take action as a group using a voting system to decide on exactly what they would do. Many of the students disengaged at this point agreeing with Lundholm et al., (2013) that the students need to see the relevance of the action or they disengage, even if they are showing an emotional concern for the issue.

Showing emotional concern or a developing ethic of care by the students was no predictor that they would take action, agreeing with Maxwell-Smith et al. (2016) that concerns for the environment often fail to translate into action due to the lack of commitment to their beliefs. The students that did display a developing action competence had repeat visits to many of the places we passed through along with more time spent in the outdoors, agreeing with the idea that multiple visits to a place create a stronger connection (Benages-Albert et al., 2015). The findings also indicate that this stronger connection is a possible predictor of students developing action competence and taking action (Gatersleben et al., 2014).

## **5.5 Recommendations and Implications**

For outdoor educators and teachers:

- Using a slower pedagogy can start to develop an ethic of care and allow students to change their perception of their place.

- A place-responsive outdoor education journey is an effective way to get students caring for their place and finding issues that concern them.
- It is important to ensure the students develop an action plan that they can have some success in; that they have chosen themselves, and that is measurable in some way. The students can then see they can make a difference.

#### For researchers

- Many of the students did not prioritise planning and taking the action or think about how their behaviours affected the issue that they cared about. Research into building the students' resilience so they have the resources to feel less busy, and may be able to look beyond themselves, prioritising taking action.
- A longitudinal study to see how a place-responsive outdoor education journey combined with environmental advocacy sessions may affect the student's decision to the prioritising of action beyond the immediacy of post journey and advocacy sessions would be important to judge longer term impacts of such experiences and attachment to place.

## References

- Aitken, G., & Sinnema, C. (2008). *Effective pedagogy in Social Sciences/ Tikanga ā Iwi: Best Evidence Synthesis Iteration (BES)*. New Zealand: The University of Auckland. Retrieved from [https://www.educationcounts.govt.nz/\\_data/assets/pdf\\_file/0020/32924/Full\\_Report.pdf](https://www.educationcounts.govt.nz/_data/assets/pdf_file/0020/32924/Full_Report.pdf)
- Andkjaer, S. (2008). Space and place in outdoor education in New Zealand - with a comparative cultural perspective to friluftsliv in Denmark and the Nordic Countries. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(4), 7.
- Barker, M., & Rogers, L. (2004). "In, about and for": Exploring the foundations of environmental education. *Set*, 2, 15–18.
- Beames, S., & Brown, M. (2016). *Adventurous learning: A pedagogy for a changing world*. New York: Routledge.
- Benages-Albert, M., Di Masso, A., Porcel, S., Pol, E., & Vall-Casas, P. (2015). Revisiting the appropriation of space in metropolitan river corridors. *Journal of Environmental Psychology*, 42, 1–15. <https://doi.org/10.1016/j.jenvp.2015.01.002>
- Berman, D. S., & Davis-Berman, J. (2005). Positive psychology and outdoor education. *The Journal of Experiential Education*, 28(1), 17–24.
- Birdsall, S. (2010). Empowering students to act: Learning about, through and from the nature of action. *Australian Journal of Environmental Education*, 26, 65–84.
- Blades, G. (2005). "If you don't mind going places without a map, follow me' : Re-stor(y)ing of self, place and educator. *Australian Journal of Outdoor Education*, 9(2), 3.
- Bogdan, R., & Biklen, S., K. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Pearson Education, Inc.
- Bolstad, R. (2003). Environmental education: Roots in the past, vision of the future, opportunities in the present. *Set*, 3, 10–13.
- Bowers, C. a. (2008). Why a critical pedagogy of place is an oxymoron. *Environmental Education Research*, 14(3), 325–335. <https://doi.org/10.1080/13504620802156470>
- Boyes, M. (2012). Historical and contemporary trends in outdoor education. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor education in Aotearoa New Zealand: a new vision for the twenty first century* (Christchurch New Zealand, pp. 22–45). CPIT,.
- Bratman, G. N., Daily, G. C., Levy, B. J., & Gross, J. J. (2015). The benefits of nature experience: Improved affect and cognition. *Landscape and Urban Planning*, 138, 41–50. <https://doi.org/10.1016/j.landurbplan.2015.02.005>

- Breunig, M. C., O'Connell, T. S., Todd, S., Anderson, L., & Young, A. (2010). The impact of outdoor pursuits on college students' perceived sense of community. *Journal of Leisure Research; Urbana*, 42(4), 551–572.
- Brookes, A. (2002). Lost in the Australian bush: Outdoor education as curriculum. *Journal of Curriculum Studies*, 34(4), 405–425.  
<https://doi.org/10.1080/00220270110101805>
- Brown, M. (2012a). A changing landscape: Place-responsive pedagogy. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor education in Aotearoa New Zealand: a new vision for the twenty first century*. Christchurch, New Zealand: CPIT.
- Brown, M. (2012b). Student perspectives of a place-responsive outdoor education programme. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 3(1), 64.
- Carlson, J. A. (2010). Avoiding traps in member checking. *The Qualitative Report*, 15(5), 1102–1113.
- Carlsson, B. (2001). Depicting experiences. *Scandinavian Journal of Educational Research*, 45(2), 125–143.  
<https://doi.org/10.1080/00313830120052723>
- Chesebro, J. W., & Borisoff, D. J. (2007). What makes qualitative research qualitative? *Qualitative Research Reports in Communication*, 8(1), 3–14. <https://doi.org/10.1080/17459430701617846>
- Clark, C. D. (1999). The autodrivn interview: A photographic viewfinder into children's experience. *Visual Sociology*, 14(1), 39–50.  
<https://doi.org/10.1080/14725869908583801>
- Clark-Ibáñez, M. (2004). Framing the social world with photo-elicitation interviews. *The American Behavioral Scientist*, 47(12), 1507–1527.
- Cowie, B., & Eames, C. (2004). Environmental education in New Zealand schools: Challenges for sustainability. *Set*, 3, 19–23.
- Denzin, N., K., & Lincoln, Y., S. (2011a). Introduction: The discipline and practice of qualitative research. In N. Denzin K. & Y. Lincoln S. (Eds.), *The SAGE handbook of qualitative research* (4th ed., pp. 1–19). SAGE.
- Denzin, N., K., & Lincoln, Y., S. (2011b). Part II: Paradigms and perspectives in contention. In N. Denzin K. & Y. Lincoln S. (Eds.), *The SAGE handbook of qualitative research* (4th ed., pp. 91–96). SAGE.
- DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education*, 40(4), 314–321.  
<https://doi.org/10.1111/j.1365-2929.2006.02418.x>
- DofE Hillary. (2017). What it's all about. Retrieved May 13, 2017, from [http://www.dofehillary.org.nz/site/about\\_the\\_award/default.aspx](http://www.dofehillary.org.nz/site/about_the_award/default.aspx)
- Eames, C., & Barker, M. (2011). Understanding student learning in environmental education in Aotearoa New Zealand. *Australian Journal of Environmental Education*, 27, 186–191.

- 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.
- Eames, C., Roberts, J., Cooper, G., & Hipkins, R. (2010). *Education for sustainability in New Zealand schools: Summary report*. Ministry of Education. Retrieved from <http://www.educationcounts.govt.nz/publications/schooling/82841>
- Edirisingha, D. P. (2012, March 14). Interpretivism and positivism (ontological and epistemological perspectives). Retrieved November 6, 2016, from <https://prabash78.wordpress.com/2012/03/14/interpretivism-and-positivism-ontological-and-epistemological-perspectives/>
- Enviroschools. (2017a). About Enviroschools. Retrieved from <http://www.enviroschools.org.nz/about-enviroschools>
- Enviroschools. (2017b). The history of Enviroschools. Retrieved from [http://www.enviroschools.org.nz/about\\_us/our\\_history](http://www.enviroschools.org.nz/about_us/our_history)
- Fredrickson, B. (2013). *Love 2.0*. Hudson Street Press.
- Gatersleben, B., Murtagh, N., & Abrahamse, W. (2014). Values, identity and pro-environmental behaviour. *Contemporary Social Science, 9*(4), 374–392. <https://doi.org/10.1080/21582041.2012.682086>
- Gruenewald, D. A. (2003). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal, 40*(3), 619–654.
- Hill, A. (2010). Reflections on beliefs and practices from New Zealand outdoor educators : Consistencies and conflicts. *Australian Journal of Outdoor Education, 14*(1), 30.
- Hill, A. (2013). The place of experience and the experience of place: Intersections between sustainability education and outdoor learning. *Australian Journal of Environmental Education, 29*(1), 18–32. <https://doi.org/10.1017/aee.2013.13>
- Hutson, G. (2008). Revisiting the meanings of “place” for New Zealand place-based outdoor education. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke, 2*(4), 47.
- Irwin, D. (2008). Weaving the threads: Exploring identity through bicultural outdoor education experiences. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke, 2*(4), 66.
- Irwin, D., & Straker, J. (2014). Tenuous affair: Environmental and outdoor education in Aotearoa New Zealand. *Australian Journal of Environmental Education, 30*(2), 151–166. <https://doi.org/10.1017/aee.2015.9>
- Jackson, R. L., Drummond, D. K., & Camara, S. (2007). What is qualitative research? *Qualitative Research Reports in Communication, 8*(1), 21–28. <https://doi.org/10.1080/17459430701617879>

- Jensen, B. B. (2002). Knowledge, action and pro-environmental behaviour. *Environmental Education Research*, 8(3), 325–334. <https://doi.org/10.1080/13504620220145474>
- Jensen, B. B., & Schnack, K. (2006). The action competence approach in environmental education. *Environmental Education Research*, 12(3–4), 471–486. <https://doi.org/10.1080/13504620600943053>
- Kesebir, S., & Kesebir, P. (2017). A growing disconnection from nature is evident in cultural products. *Perspectives on Psychological Science*, 12(2), 258–269. <https://doi.org/10.1177/1745691616662473>
- Kollmuss, A., & Agyeman, J. (2002). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), 239–260. <https://doi.org/10.1080/13504620220145401>
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. SAGE.
- Kvale, S. (2007). *Doing interviews*. SAGE.
- Learning through Landscapes. (2003). National school grounds survey 2003. Learning through landscapes, UK. Retrieved from <http://www.ltl.org.uk/pdf/LTL-Survey-20031288585139.pdf>
- Lee, K. E., Williams, K. J. H., Sargent, L. D., Williams, N. S. G., & Johnson, K. A. (2015). 40-second green roof views sustain attention: The role of micro-breaks in attention restoration. *Journal of Environmental Psychology*, 42, 182–189. <https://doi.org/10.1016/j.jenvp.2015.04.003>
- Leinbach, K. (2017). *Urban ecology: A natural way to transform kids, parks, cities and the world*. McLean, Virginia, USA: Difference Press.
- Leopold, A. (1968). The land ethic. In *A Sand Country Almanac and sketches here and there*. Oxford University Press.
- Lincoln, Y., S., Lynham, S., A., & Guba, E., G. (2011). Paradigmatic controversies, contradictions and emerging confluences, revisited. In N. Denzin & Y. Lincoln (Eds.), *The SAGE handbook of qualitative research* (4th ed., pp. 97–128). SAGE.
- Locke, L., F., Silverman, S., J., & Spirduso, W. W. (1998). *Reading and understanding research*. SAGE.
- Loeffler, T. A. (2004). A photo elicitation study of the meanings of outdoor adventure experiences. *Journal of Leisure Research*, 36(4), 536–556.
- Louv, R. (2010). *Last child in the woods: Saving our children from nature-deficit disorder* (Rev. and updated ed.). London : Atlantic.
- Louv, R. (2012). *The nature principle: Reconnecting with life in a virtual age*. Algonquin Books of Chapel Hill.
- Lundholm, C., Hopwood, N., & Rickinson, M. (2013). Environmental learning: Insights from research into the student experience. In R. B. Stevenson, M. Brody, & J. Dillon (Eds.), *International Handbook of Research on Environmental Education* (pp. 243–252). Routledge.

- Mannion, G., Fenwick, A., & Lynch, J. (2013). Place-responsive pedagogy: Learning from teachers' experiences of excursions in nature. *Environmental Education Research*, 19(6), 792–809. <https://doi.org/10.1080/13504622.2012.749980>
- Marton, F. (1986). Phenomenography—A research approach to investigating different understandings of reality. *Journal of Thought*, 21(3), 28–49.
- Maxwell-Smith, M. A., Conway, P. J., Wright, J. D., & Olson, J. M. (2016). Translating environmental ideologies into action: The amplifying role of commitment to beliefs. *Journal of Business Ethics*, 1–20. <https://doi.org/10.1007/s10551-016-3404-3>
- McMillan, S. G., & Binns, T. (2011). Environmental education and learning communities: The case of Kaikorai Stream, Dunedin, New Zealand. *New Zealand Geographer*, 67(3), 199–212. <https://doi.org/10.1111/j.1745-7939.2011.01212.x>
- Mikaels, J., Backman, E., & Lundvall, S. (2016). In and out of place: Exploring the discursive effects of teachers' talk about outdoor education in secondary schools in New Zealand. *Journal of Adventure Education and Outdoor Learning*, 16(2), 91–104. <https://doi.org/10.1080/14729679.2015.1086660>
- Miller, K. E. (2015). Dear critics: Addressing concerns and justifying the benefits of photography as a research method. *Forum : Qualitative Social Research*, 16(3), n/a.
- Ministry of Education. (1999). Guidelines for environmental education in New Zealand schools. Retrieved from <http://nzcurriculum.tki.org.nz/Curriculum-resources/Education-for-sustainability/Tools-and-resources/Guidelines-for-Environmental-Education-in-New-Zealand-Schools>
- Ministry of Education. (2007). The New Zealand curriculum. Retrieved from <http://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
- Ministry of Education. (2015a). Education for sustainability. Retrieved from <http://nzcurriculum.tki.org.nz/Curriculum-resources/Education-for-sustainability/About-EfS>
- Ministry of Education. (2015b, April 28). Education for sustainability curriculum guides. Retrieved from <http://seniorsecondary.tki.org.nz/Social-sciences/Education-for-sustainability/Learning-objectives>
- Ministry of Education. (2016). EOTC guidelines: Bringing the curriculum to life. Retrieved from <http://eotc.tki.org.nz/EOTC-home/EOTC-Guidelines>
- Mogensen, F., & Schnack, K. (2010). The action competence approach and the “new” discourses of education for sustainable development, competence and quality criteria. *Environmental Education Research*, 16(1), 59–74. <https://doi.org/10.1080/13504620903504032>

- Nakagawa, Y., & Payne, P. G. (2017). Educational experiences of post-critical non-place. *International Journal of Qualitative Studies in Education*, 30(2), 147–160. <https://doi.org/10.1080/09518398.2016.1242802>
- Neuman, W. L. (2003). *Social research methods: Qualitative and quantitative approaches* (5th ed.). Pearson Education, Inc.
- North, C. (2015). Rain and romanticism: The environment in outdoor education. *Asia-Pacific Journal of Health, Sport and Physical Education*, 6(3), 287–298. <https://doi.org/10.1080/18377122.2015.1092725>
- Parliamentary Commissioner for the Environment. (2004). *See Change: Learning and education for sustainability*. Wellington: PCE. Retrieved from [http://www.pce.parliament.nz/media/pdfs/See\\_change\\_report.pdf](http://www.pce.parliament.nz/media/pdfs/See_change_report.pdf)
- Payne, P. G., & Wattchow, B. (2008). Slow pedagogy and placing education in post-traditional outdoor education. *Australian Journal of Outdoor Education*, 12(1), 25.
- Penetito, W. (2008). Place-based education: Catering for curriculum, culture and community. *New Zealand Annual Review of Education*, 18, 5–29.
- Place, G. S. (2016). Yesterday's conservationists: How were they educated about the outdoors and the environment? *Journal of Adventure Education and Outdoor Learning*, 16(4), 359–371. <https://doi.org/10.1080/14729679.2016.1171158>
- Preston, L. (2004). Making connections with nature: Bridging the theory - practice gap in outdoor and environmental education. *Australian Journal of Outdoor Education*, 8(1), 12–19.
- Qu, S. Q., & Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting and Management*, 8(3), 238–264. <https://doi.org/http://dx.doi.org.ezproxy.waikato.ac.nz/10.1108/11766091111162070>
- Reichertz, J. (2014). Induction, deduction, abduction. In U. Flick (Ed.), *The SAGE handbook of qualitative data analysis* (pp. 123–135). London: SAGE Publications. Retrieved from <http://public.eblib.com/choice/publicfullrecord.aspx?p=1707694>
- Rickinson, M., Dillon, J., Teamey, K., Morris, M., Choi, M. Y., Sanders, D., & Benefield, P. (2004). *A review of research on Outdoor Learning*. Retrieved from [https://www.field-studies-council.org/media/268859/2004\\_a\\_review\\_of\\_research\\_on\\_outdoor\\_learning.pdf](https://www.field-studies-council.org/media/268859/2004_a_review_of_research_on_outdoor_learning.pdf)
- Rioux, L. (2011). Promoting pro - environmental behaviour: Collection of used batteries by secondary school pupils. *Environmental Education Research*, 17(3), 353–373. <https://doi.org/10.1080/13504622.2010.543949>
- Rubin, H., J., & Rubin, I., S. (2012). *Qualitative interviewing: The art of hearing data* (4th ed.). SAGE.

- Scannell, L., & Gifford, R. (2010). The relations between natural and civic place attachment and pro-environmental behavior. *Journal of Environmental Psychology, 30*(3), 289–297.  
<https://doi.org/10.1016/j.jenvp.2010.01.010>
- Scholl, A. (2008). Qualitative methodology. In D. Wolfgang (Ed.), *The International Encyclopedia of Communication*. Blackwell Publishing.  
 Retrieved from  
 <[http://www.communicationencyclopedia.com.ezproxy.waikato.ac.nz/subscriber/tocnode.html?id=g9781405131995\\_yr2012\\_chunk\\_g978140513199522\\_ss1-1](http://www.communicationencyclopedia.com.ezproxy.waikato.ac.nz/subscriber/tocnode.html?id=g9781405131995_yr2012_chunk_g978140513199522_ss1-1)>
- Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and social sciences* (4th ed.). NY: Teachers College Press.
- Skills Active Aotearoa. (2011). Outdoor recreation. Retrieved May 14, 2016, from <http://skillsactive.org.nz/Default.aspx?page=2392>
- Skipworth, A. J. (2017). *Place responsive and culturally responsive outdoor education in secondary schools: Examining teachers' perspectives and experiences* (Thesis). University of Waikato. Retrieved from <http://researchcommons.waikato.ac.nz/handle/10289/11179>
- Smith, E. F., Gidlow, B., & Steel, G. (2012). Engaging adolescent participants in academic research: The use of photo-elicitation interviews to evaluate school-based outdoor education programmes. *Qualitative Research, 12*(4), 367–387. <https://doi.org/10.1177/1468794112443473>
- Smith, E. F., Steel, G., & Gidlow, B. (2010). The temporary community: Student experiences of school-based outdoor education programmes. *The Journal of Experiential Education, 33*(2), 136–150.
- Smith, G. A. (2002). Place-based education. (Cover story). *Phi Delta Kappan, 83*(8), 584.
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology, 29*(3), 309–317.  
<https://doi.org/10.1016/j.jenvp.2008.10.004>
- Stevenson, R. B. (2008). A critical pedagogy of place and the critical place(s) of pedagogy. *Environmental Education Research, 14*(3), 353–360.  
<https://doi.org/10.1080/13504620802190727>
- Stewart, A. (2008). Whose place, whose history? Outdoor environmental education pedagogy as “reading” the landscape. *Journal of Adventure Education and Outdoor Learning, 8*(2), 79–98.  
<https://doi.org/10.1080/14729670801906125>
- Stoknes, P. E. (2015). *What we think about when we try not to think about global warming: Toward a new psychology of climate action*. White River Junction, VT: Chelsea Green Publishing.

- Straker, J. (2008). Unearthing “the outdoors” in outdoor education. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(4), 103.
- Sustainable Aotearoa New Zealand Incorporated. (2009). *Strong sustainability for New Zealand*. Nakedize Limited. Retrieved from <http://nz.phase2.org/>
- Tan, Y. S. M., & Atencio, M. (2016). Unpacking a place-based approach – “What lies beyond?” Insights drawn from teachers’ perceptions of Outdoor Education. *Teaching and Teacher Education*, 56, 25–34. <https://doi.org/10.1016/j.tate.2016.02.001>
- Taylor, C. (2014). *Place-responsive education: Student perspectives* (Thesis). University of Waikato. Retrieved from <http://researchcommons.waikato.ac.nz/handle/10289/8725>
- Thomas, G. (2005). Traditional adventure activities in outdoor environmental education. *Australian Journal of Outdoor Education*, 9(1), 31.
- Tilbury, D. (1995). Environmental education for sustainability: Defining the new focus of environmental education in the 1990s. *Environmental Education Research*, 1(2), 195–212. <https://doi.org/10.1080/1350462950010206>
- Townsend, J. (2011). Challenges and opportunities in implementing a place-based outdoor education course in a New Zealand Secondary School. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(5), 66.
- UNESCO. (1977). *Intergovernmental conference on environmental education: Tbilisi*. Retrieved from <http://unesdoc.unesco.org/images/0003/000327/032763eo.pdf>
- UNESCO. (2005). *UN decade of education for sustainable development*. Retrieved from <http://unesdoc.unesco.org/images/0014/001416/141629e.pdf>
- UNESCO. (2014). UNESCO educational strategy 2014-2021. United Nations Educational, Scientific and Cultural Organization. Retrieved from <http://unesdoc.unesco.org/images/0023/002312/231288e.pdf>
- van der Linden, S. (2015). Intrinsic motivation and pro-environmental behaviour. *Nature Climate Change*, 5(7), 612–613. <https://doi.org/10.1038/nclimate2669>
- Wattchow, B., & Brown, M. (2011). *A pedagogy of place: Outdoor education for a changing world*. Australia: Monash University Publishing.
- Wells, N. M., & Lekies, K. S. (2006). Nature and the life course: Pathways from childhood nature experiences to adult environmentalism. *Children, Youth and Environments*, 16(1), 1–24. <https://doi.org/10.7721/chilyoutenvi.16.1.0001>
- Williams, D. R., & Dixon, P. S. (2013). Impact of garden-based learning on academic outcomes in schools synthesis of research between 1990

- and 2010. *Review of Educational Research*, 83(2), 211–235.  
<https://doi.org/10.3102/0034654313475824>
- Williams, P. (2012). Educating for sustainability in New Zealand: Success through enviroschools. In M. Robertson (Ed.), *Schooling for sustainable development: A focus on Australia, New Zealand and the Oceanic Region* (pp. 33–48). Springer.
- World Wildlife Fund WWF. (2014). Living planet report 2014. Retrieved April 22, 2016, from 4
- World Wildlife Fund, WWF. (2016). *The living planet report 2016: Risk and resilience in a new era*. Gland, Switzerland: WWF International,.
- Zink, R., & Boyes, M. (2007). The nature and scope of outdoor education in New Zealand schools. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(2), 57.

# **Appendix**

## **Appendix A**

### **Information sheet and consent form for students and their parents/caregivers**

#### **Place-responsive outdoor education and environmentally sustainable action**

#### **Research project for a Masters of Sports and Leisure Studies**

**Researcher: Jo Martindale**

#### **For Students:**

Backyard Adventure is an outdoor education project based in your local area. During Backyard Adventure you will explore and discover the Harbour area. Along the way you will learn more about biking, tramping, camping and sea kayaking. You may also learn more about yourself, your peers, your community and your potential to be a leader, through adventure, interaction with your community and sharing of stories.

You have received this letter because you have had the opportunity to participate in the Backyard Adventure that is a collaborative initiative between Jo Martindale, a Masters in Sport and Leisure Studies candidate at The University of Waikato, and the School. The Principal has given her approval for this project to be conducted. This project will take place during term 1 and 2 with the journey itself being between the 28<sup>th</sup> April 2015- 2<sup>nd</sup> May 2015.

With your permission you will be asked to take photos on the trip using a disposable camera supplied by Jo Martindale. When the photos are developed an interview will be conducted (tentative dates 18<sup>th</sup>/ 19<sup>th</sup> May 2015). The photos will be used to review the trip and act as a reminder of the things that happened. This interview will take approximately 30 minutes and may require you to miss a short time of class. Specific times to be organised in negotiation with yourself, your teacher and Jo Martindale.

After the journey you will be guided through how you could create an environmental action on one of 4-5 issues you discovered about in the journey. You will be given a second camera in your first interview so that you can take photographs of the environmental action process. A second interview will then take place once these photos are developed (tentative dates 2<sup>nd</sup>/ 3<sup>rd</sup> June 2015), again specific times will be negotiated with yourself, your teacher and Jo Martindale, to discover how you found creating the action.

Participation is your choice – you do not have to participate, but it would be great if you would be prepared to help. Participation has no bearing on your school grades and it is not a part of the formal school curriculum. This is your opportunity to potentially help change the way part of outdoor education is run in schools. You will not be named in any published documents.

If you would like to help please sign the consent form on the next page. You will have the right to withdraw at any time up until you have reviewed and approved the transcripts of the interviews. At the end of the project I may publish or give some presentations on the findings and new insights, so that they can be shared, and other students may have an enhanced outdoor education experience.

**For Caregivers:**

It is important that you are made aware of the request that I have made to your daughter. In addition to gaining their permission I also require your permission to allow them to participate in the research.

Agreeing to participate (or not participate) has no bearing on their school marks.

I would welcome your support if you and the student who brought this home both agree. Please sign the consent form on the following page if you are happy that the young person in your care can participate. As indicated above we will be trying to share the findings of this initiative with other teachers and university educators through conference presentations, journal articles and related academic publications.

This project complies with the requirements of the University of Waikato Faculty of Education's Ethics Committee.

If I can be of further assistance please do not hesitate to contact me.

**Researcher Details:**

Jo Martindale  
Tutor- Outdoor Instruction and Management level 5  
Aoraki Polytechnic  
32 Arthur Street  
Timaru  
[jo.martindale@aoraki.ac.nz](mailto:jo.martindale@aoraki.ac.nz)  
Ph: 027 415 4103

**Research Supervisor:**

Dr Mike Brown  
Senior Lecturer  
Department of Sport and Leisure Studies  
School of Education  
The University of Waikato  
[michaelb@waikato.ac.nz](mailto:michaelb@waikato.ac.nz)  
Ph (07) 838 4466 ext 6527  
Fax (07) 858 5083

## Consent form

### Place-responsive outdoor education and environmentally sustainable action

#### Student informed consent form

- I understand I will need to participate in the lead up sessions (term 1) and the 5 day journey (28<sup>th</sup> April- 2<sup>nd</sup> May2015).
- I agree to be interviewed at school by Jo Martindale at an arranged time that is suitable for everyone.
- I understand that this is my free choice to take part in this project and I can withdraw at any time up until I have approved my interview transcript.
- I agree to take photos on the trip, and in the planning and possible implementation of the action. That these photos may be used in the final research findings and further publications after that.
- I understand that the interview will be recorded but there will be no mention of my name in any report or presentation that results.
- I understand that although all measures will be taken to maintain anonymity this cannot be guaranteed.
- I understand that I have a responsibility to only use the photos of the trip in an appropriate manner and not use them in any way that may be harmful to my classmates, teacher and the School.
- I understand that the material gathered from this project may be used in a published master thesis and other academic publications and conference presentations.

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

## Caregiver informed consent form

- I \_\_\_\_\_ agree \_\_\_\_\_ to \_\_\_\_\_ let  
(name) \_\_\_\_\_  
participate in the research and be interviewed by Jo Martindale at  
an arranged time that is suitable for all.
- I understand that the Principal of the School has given permission  
for this research project to take place.
- I understand that this research project complies with the University  
of Waikato Ethical guidelines which are tasked with the protection  
of all parties.
- I agree to my daughter taking photos on the trip and that these  
photos may be used in the final research findings and further  
publications after that.
- I understand that the interviews will be audio-recorded but that the  
use of a pseudonym will protect my daughters' identity in any  
material gathered from this project.
- I understand that although all measures will be taken to maintain  
anonymity this cannot be guaranteed.
- I understand that the material gathered from this project may be  
used in a published masters' thesis and other academic  
publications and conference presentations.

Name: \_\_\_\_\_

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

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

I agree to allow Jo Martindale to take photos of the above mentioned  
student while involved in the Journey for use in presentations and journals  
to professional groups (e.g., outdoor education teachers)

Yes  No

Both parent/caregiver and student need to agree to permit participation.

**Thank you for your help.**

**Please give this letter back to the office by Monday 23<sup>rd</sup> March 2015**

## Appendix B

### Research Trip

To provide some context here is a brief outline of the journey and environmental sessions post-journey:

The trip was conducted over five days. It started and finished at the school. A total of 12 students completed the journey; all were year 10 students who had chosen and applied to be part of the Backyard Adventure 'club'. The staff consisted of one teacher from the school, five polytechnic students who were instructing on the journey, plus their supervisor. I was in a participant observation role. Several community members joined the journey for short sections; these people provided an interpretation of 'their' place as we passed through. Post the journey two women from Generation Zero came and ran three 1hr environmental action planning sessions, again to keep my role as researcher clear.

#### Day 1

Introduction to the trip, gear checks, and expectations of the journey.

- Karakia; met at school by a Senior Lecturer in Treaty Education from the Polytechnic who gave us a Karakia to begin the journey.
- Bike; this was our main form of transport today. We had three legs, using bike lanes.
- Edible garden and community garden. A tour of the edible garden, letting students know it is there and for all. Collected some food towards dinner from here. Community Garden visit and discussed how many around the city, collected more vegetables from here for dinner.
- Storytime; The Senior Lecturer met us at the edible gardens also and unpacked the Karakia he gave, sharing with us how, from a Māori perspective, we are part of the land and connected to it, through ancestry.
- Camp set up. We had a support vehicle for logistics that met us at the council reserve. Students had to carry bags about 100m to the campsite.

- Dinner preparation; the group split into cooking groups, each group organised food for one day of the journey.

#### Day 2

- Edible wild plants (native and introduced), observation of forest and bush. Met by a herbalist who walked part way up the hill through the pine forest and bush with us, interpreting the change in vegetation, introducing edible plants and ones with medicinal properties. Bush observation exercise.
- Continue the tramp, great views back to the city. (day of tramping today)
- Māori mythology, history of the bush, birds, and the effects humans have had. Learnt about seed bombs, local stream projects and water quality from local environmental educator.
- Set up Hall for night
- Dinner preparation.

#### Day 3

- History of the Port and Islands in the Harbour from a long time local and a member of the Trust who manages the islands.
- Sea Kayaking; Unfortunately, due to strong winds, this had to change. We ended up getting a boat over to the island and the other side of the Harbour.
- Exploration of Island, its many histories, and uses, from Māori to modern day
- Biking; from where the boat dropped us off and back to the Hall
- Dinner preparation

#### Day 4

- Bike out to Harbour mouth and back to hall,
- At Harbour mouth; local educator met us to show us the bird and marine life, the history and how the environment at the harbour mouth has changed, explore human impacts both positive and

negative on the area. Students participated in a beach clean-up while out there.

- WW2 history – gun emplacements explored on the way back.
- Local predatory project; A lady from the local biodiversity group met us, explaining how they were attempting to make the area possum free. Students got to be involved with putting possum chew cards out around the area.
- Dinner prep.

#### Day 5

- Biking - final leg back to school, completing the loop.
- Model creation of week - at the head of the harbour, when nearly back to school, students in small groups created models of their week. They then got to tell the story of their week to each other.

#### Environmental Action Planning Sessions

- Session one revisited the journey, mapping out where they had been, what they had experienced and seen. Who they met and what they were doing in the community.
- Session two looked more in depth at the varying 'issues' that the students had picked up on during the journey and which ones they showed an interest in. The students split up into groups depending on what issue they were interested in. They were then led through how to start researching the issue and thinking about possible actions they could take to help improve the problem. They all left this session with some research to do before the final session.
- The final session led the students through how to use their research and ideas to create a plan for action that was achievable for them to take. Some of the plans needed a little more work and permission to be sought from both the principal and other people if they were to take action.
- The students then had three weeks from the end of the environmental action planning sessions to give them enough time, if motivated to complete their action, before the second interview.

## Appendix C

### Interview Questions Post Journey

1. This is my favourite photo from the journey because.....
2. This photo from the journey makes me feel..... because.....
3. This photo of..... shows what the journey was like for me best because.....
4. What I liked most about the journey was..... because.....
5. What I liked least about the journey was..... because.....

Prompt Questions if needed:

How did you find the journey? Tell me about it?

Have you done much exploring in this area before? If so where have you been? How often?

What did you enjoy most about the journey? Why?

How did you find cooking in groups? Why?

How do you feel about [the] Harbour area, now that you have completed the journey? Why?

Is this any different to before the journey? How is it different?

Along the way you learnt about some of the issues facing the local places, how do you feel about them?

How likely are you to revisit any of the places you passed through and learnt about on the journey? If so, which ones? And Why?

## **Appendix D**

### **Interview Questions post environmental advocacy**

1. This is my favourite photo from the action because.....
2. This photo from the action makes me feel..... because.....
3. This photo of..... shows what the action was like for me best because.....
4. What I liked most about being involved in the action process was..... because.....
5. What I liked least about being part of the action process was..... because.....

Prompt Questions if needed:

What Action did you choose to do? Tell me about it?

What made you decide to do this?

How did you manage to come up with the solution you did?

How successful do you believe your action was? Why?

How motivated to do the action were you? Why?

Do you think you would have done an action had it not been part of the programme? Why?

Do you think doing the action was worthwhile? Why?

How likely are you to do any more actions to help the local issues? Why is that?

## Appendix E

### Information sheet and consent form for School Principal

#### Place-responsive outdoor education and environmentally sustainable action

#### Research project for a Masters of Sports and Leisure

**Researcher: Miss Jo Martindale**

Dear \_\_\_\_\_,

I am writing to request your permission to conduct a research project with a selection of students from your year 10 cohort. This project is the basis of a thesis as part of a Master of Sports and Leisure Studies at The University of Waikato. There are two parts to this research. Firstly, a 5-day journey around [the] Harbour where students will be asked to take photographs on this journey. The photographs will be developed and an interview will be conducted. The photographs will act as a review of the trip, jogging students' memories, to better answer the research questions. Secondly, they will get to decide on a local environmental issue, come up with a solution to this issue and then action it. Again students will be asked to take photographs, these will be used as the basis of the second interview, which will take place post the environmentally sustainable action. The interviews will provide the main data to be used in the research project.

With your permission and the consent of the participating students and their caregivers, I am hoping to observe the journey and record the interviews for this project. The suggested schedule for this is:

- Early term 1: Initial presentation to inform year 10 about the journey.
  - Presentation by myself on Friday March 13<sup>th</sup> to give more detailed information to the students about the journey. Students randomly selected by teachers, if more than six students wish to participate.
  - Journey to take place term 2 week 2 2015 (28<sup>th</sup> April – 1<sup>st</sup> May 2015)
  - Two interviews, both using the photographs the students took, with students at mutually agreeable time. Each interview will last approximately 30-40 minutes.
    1. First interview, tentatively looking at 18<sup>th</sup> and 19<sup>th</sup> May 2015.
    2. Second interview after completion of the environmentally sustainable action, tentatively 2<sup>nd</sup> and 3<sup>rd</sup> of June 2015.
- Observation of the journey will be used along with notes I record and photos I take*

The participants will be given an opportunity to view the transcripts and correct any factual inaccuracies or perceived misrepresentation. When the project is completed you will be offered a copy of any or all publications relating to this project.

The findings from this project will be disseminated through the thesis document, professional journals, conferences etc.

To ensure the anonymity of the students, the school name will not be mentioned; neither will the city the school is in. Pseudonyms will be used to protect the research participants. Although all measures will be taken to maintain anonymity, this cannot be guaranteed. Consent will be sought to use any of the students' photos. These will be used to enhance the thesis any presentations that may be given as a result of the project.

Please find attached the information sheets for parents/caregivers.

Please sign the consent form on the next page and return it to me, if you give your permission for me to interview the students. Thank you in advance for this and if you have any questions please feel free to contact me, or my research supervisor Dr. Mike Brown.

Jo Martindale  
Tutor- Outdoor Instruction and Management level 5  
Aoraki Polytechnic  
32 Arthur Street  
Timaru  
[jo.martindale@aoraki.ac.nz](mailto:jo.martindale@aoraki.ac.nz)  
Ph: 027 415 4103

Dr Mike Brown  
Senior Lecturer  
Department of Sport and Leisure Studies  
School of Education  
The University of Waikato  
[michaelb@waikato.ac.nz](mailto:michaelb@waikato.ac.nz)  
Ph (07) 838 4466 ext 6527  
Fax (07) 858 5083

## **Principal's Consent Form**

### **Place-responsive outdoor education and environmentally sustainable action**

I consent to Jo Martindale observing the place-responsive journey and interviewing the students who have participated in the journey and environmentally sustainable action.

I understand informed consent will be required from both the parents/caregivers and the students being involved.

It is understood that all efforts will be made to protect the identity of the students and the school within any publications resulting from this research project. Although all measures will be taken to maintain anonymity, this cannot be guaranteed.

I understand that that Jo Martindale has been sought approval from The University of Waikato's Ethic's committee in relation to this project and will comply with The University of Waikato's Ethical Conduct in Human Research and Related Activities Regulations.

I understand that photographs taken during the journey and environmental action may be used in publications related to the project, but no names of the students or the school will be used to identify them.

Any student that can be identified in a photograph will be required to give written consent for them to be included in the research.

Name:

Date:

Signature:

## **Appendix F**

### **Information sheet for School Teachers**

#### **Place-responsive outdoor education and environmentally sustainable action**

#### **Research project for a Masters of Sports and Leisure Studies**

**Researcher: Miss Jo Martindale**

Dear \_\_\_\_\_ and \_\_\_\_\_,

You have received this letter because you have agreed to run an extra curricular outdoor education and leadership club, which has been designed in partnership with you. I am looking forward to working with you both on this project. The Principal has given her permission for this project to be conducted, which is part of a Master of Sports and Leisure Studies at The University of Waikato. This project will take place in terms 1 and 2 2015 with the journey itself 28<sup>th</sup> April – 2<sup>nd</sup> May 2015.

From our conversations I understand that you are forming the outdoor education and leadership club early in term 1 so that you are able to spend the term teaching biking, kayaking and camping skills to the girls.

I will present to the invited members of the club on 13<sup>th</sup> March 2015, explaining what the research is about and my role, giving more details on Backyard Adventure and specifically about the journey. I will also inform them about learning to plan for sustainable action, post journey. Due to the research wanting to find out if the students will perform the planned action, I will not mention anything about them needing to do this. The students will then be invited to be part of the research project. The students will be given information sheets and consent forms for themselves and their caregivers. If more than six students return the consent forms, then you will be asked to randomly choose six to be involved in the research.

All students in the project will be provided with cameras for the journey. The photographs will be developed and an interview will be conducted (tentative dates 18<sup>th</sup>/ 19<sup>th</sup> May 2015). The photographs will act as a review of the trip, jogging students' memories, to assist in answering the research questions. Secondly, they will get to decide on a local environmental issue, come up with a solution to this issue and then action it. Again students will be asked to take photographs; these will be used as the basis of the second interview (tentative dates 2<sup>nd</sup>/ 3<sup>rd</sup> June 2015), which will take place post the environmentally sustainable action. The interviews will provide the main data to be used in the research project. All participating students will get copies of their photographs. Only the six students in the project will have interviews and their data will be used in the thesis.

Participation in the research project is the student's choice and they do not have to participate in the research. The students will have the right to withdraw at any time up until they have reviewed and approved the

transcripts of the interviews.

All participants, including yourself will be offered access to the final research thesis through the University Research Commons Database where it will be lodged at the conclusion of the project.

Thank you in advance for this and if you have any questions please feel free to contact me, or my research supervisor Dr. Mike Brown.

Jo Martindale  
Tutor- Outdoor Instruction and Management level 5  
Aoraki Polytechnic  
32 Arthur Street  
Timaru  
[jo.martindale@oraki.ac.nz](mailto:jo.martindale@oraki.ac.nz)  
Ph: 027 415 4103

Dr Mike Brown  
Senior Lecturer  
Department of Sport and Leisure Studies  
School of Education  
The University of Waikato  
[michaelb@waikato.ac.nz](mailto:michaelb@waikato.ac.nz)  
Ph (07) 838 4466 ext 6527  
Fax (07) 858 5083