Places that matter: An exploration of adolescents' valued places, spaces and nature connections

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Southern Cross University

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PLACES THAT MATTER:

AN EXPLORATION OF ADOLESCENTS’ VALUED PLACES, SPACES
AND NATURE CONNECTEDNESS

Helen Widdop Quinton

A thesis submitted to fulfil the requirements of the degree of Doctor of Philosophy

Southern Cross University

July 2015
DECLARATION

I certify that the work presented in this thesis is, to the best of my knowledge and belief, original, except as acknowledged in the text, and that the material has not been submitted, either in whole or in part, for a degree at this or any other university.

I acknowledge that I have read and understood the University's rules, requirements, procedures and policy relating to my higher degree research award and to my thesis. I certify that I have complied with the rules, requirements, procedures and policy of the University.

Name: Helen Widdop Quinton

Signature:  

Date: July 2015
ABSTRACT

This study originates in a concern that teenagers are frequently lost in nature-connectedness and environmental education discourses, and an awareness of the challenges they face navigating our increasingly globalised and digitised world. It takes an insiders’ view of the places and spaces that are important in an adolescent’s life, in both affluent Western modernity (Melbourne, Australia) and less-privileged rural (remote northeast India) contexts.

The study charts both familiar and new territories of adolescent experiences and use of their valued and favourite places and nature, broadening and building on the childhood-nature connectedness discourses and addressing blind spots in environmental education literature.

Adolescent development, socioecological theory and environmental psychology theoretically informed this exploration of young people’s relationships with their valued places. This prompted consideration of adolescent developmental imperatives, place-making activities and socioecological system elements as key influences on the adolescents’ place valuing and interacting.

Employing Barratt Hacking, Cutter-Mackenzie and Barratt’s ‘child-framed’ methodology (2013) of co-opting teenagers as partners in the research gave adolescents in the study agency and voice. Through a mixture of photo elucidation, Facebook ‘diarising’, iterative focus groups and an eventual survey in Melbourne, perceptions and conceptions about the adolescents’ favourite, everyday, natural and school places, and how they engage with these were revealed through visually rich narratives of the young researchers’ valued places.

By illuminating the in-between spaces – between childhood and adulthood, affluent and less privileged lifestyles, rural – urban settings, the real or virtual, and between development, wellbeing and learning - the relevance of home, family, friends and nature was revealed, consistent with past (predominantly affluent context) adolescent place studies. Connectedness and belonging, to places and people, was important to all the adolescents. Friends, fun and being active also dominated the Melbourne teenagers’ choice of places and interactions while the young people in India valued the places and activities that supported their village community, reflecting the individualist and collectivist cultural differences between the adolescents. The role of places of retreat (home, nature and digital) for the ‘hurried’, self-focused Melbourne teenagers and the harsh realities of life for the nature-rich, community-
centric young people in India emerged. The lives (and survival) of the adolescents in India were intimately interwoven with nature. They evidenced high level ecoliteracy and appreciation of nature illuminating a nature connectedness contrary to perceptions of adolescents as disinterested in nature. Nature tended to be peripherally positioned in the Melbourne adolescents’ lives, although they often valued nature as significant to their psycho-emotional wellbeing. Nature was perceived as a functional and enjoyable setting as they focused on socialising and embracing experiences in their quest for development of their personal and social identity.

Family and social learning became apparent as factors that mediated the young people’s experiences with nature, with nature-familiarity promoting stronger connectedness. Generalising beyond these narratives of adolescents’ valued places amongst the multiplicity of those around the world is not possible, but the spotlighting of the factors that facilitated the young people’s nature connectedness suggests a nature connectedness-wellbeing effect at adolescence that has pro-environmental consciousness implications. A model for a social, embodied and storied place pedagogy with a wellbeing focus that is responsive to both place and adolescent imperatives is proposed. Such a socioecological learning approach, that incorporates different ways of knowing outdoor places, particularly the local nearby nature, is advanced as a way to enable adolescents’ connection to nature that promotes wellbeing and socioecological learning.
DEDICATION

To Geoff, who didn’t want to live in the city and so helped me find my ‘soul country’ – you started this. Thanks are not enough to express my gratitude for your unqualified support. To my children, Bryley and Drew, you are the future. My love and best wishes go with you in your journey finding your place in the world – you are the meaning behind this.

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My thanks also go to Professor Anne Graham, who stepped in as Co-Supervisor after my transfer to Southern Cross University, for her wise counsel.

Southern Cross University has played a large role in ensuring the completion of this thesis. I am very grateful to the University for the financial support through an APA Scholarship and to the School of Education for ongoing support and resources.

There would not have been any research findings without the young people and their schools, so I owe much appreciation to the participating students and supportive staff from the schools in India and Melbourne. Many thanks also for the assistance from the Growing Through Education Foundation and HELP Tourism India who facilitated my research visit in India.

I acknowledge and pay respect to the traditional custodians of country throughout Australia and India, in particular those of the Melbourne and Eastern Himalayan regions where this research was situated. I pay respect to their cultures and Elders past, present and future.

My gratitude also goes to my Victoria University colleague, Dr Kerry Renwick, for her support and encouragement.
Finally my appreciation and love go to my mother and father, Wilma and Fred, who have always believed in me and encouraged me to follow my dreams. You let that moody teenager explore the wild, winter beaches long ago and look where it led to all these years later.
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PUBLICATIONS

The following publications have been generated from and alongside this thesis:

2007 -


2008 -


2013 -


PROLOGUE

“You don’t by any chance know the way through this labyrinth, do you?”
(Lucas & Henson, 1986, Conversation With Wall Worm Scene)

The labyrinth-like pathway woven in this ancient Celtic design is the emblem for this research journey, representing the complex and interlaced story of the places that matter to adolescents as uncovered through this research study.

Ancient Celtic designs represent the interconnectedness of the facets of life and the meandering line of the labyrinth-like journey through life’s experiences (Sujuan, Luojia, Yun, & Ling, 2003).

This image provides a symbolic representation of both the purpose of this study – mapping the complex, interwoven interplay of influences on adolescents’ perceptions of valued places – and the driving focus of the study in investigating the ‘spaces between’. The ‘spaces’ between:

- childhood and adulthood;
- formal and non-formal learning;
- outdoor and environmental learning;
- western urban modernity and less privileged rural majority contexts;
- nature and built environments; and
- physical and digital spaces.
CHAPTER ONE

INTRODUCTION TO PLACES THAT MATTER TO ADOLESCENTS

Introduction

In a time of concern for the often neglected adolescent lifestage (WHO, 2014), the challenges related to our globalised and digitised world, and the increasingly vocal insistence in affluent societies for (re)connecting children with nature, this research is presented as an exploratory study of the places that matter to adolescents in urban Melbourne, Australia, and remote, rural, northeast India.

Adolescents co-opted as partners in the research following a 'child-framed' methodology (Barratt Hacking, Cutter-Mackenzie, & Barratt, 2013) contributed an insiders’ perspective of what makes everyday, favourite and natural places important for young people, thereby exploring factors that mediate young people’s connections to place and venturing into the territories of adolescent development, place psychology, socioecological theory, environmental learning and well-being.

This chapter introduces the study by initially positioning and defining the scope of the research, introducing the key topic themes that will be considered in detail in Chapter Two (Literature Review) and Chapter Three (Theoretical Framework). Following this is the background to the thesis that includes my personal orientation to the research, justification for the area of research and significance of this study. The research intentions and specific research questions that guide the study are then outlined and finally the chapter concludes with a thesis structure summary.

Positioning the study

Concerns about the changing nature of childhood are escalating with increasing urbanisation and the reliance on digitally mediated lifestyles effecting a reduction in opportunities for children and young people to spend time outdoors interacting with nature (see Barratt Hacking, Barratt, & Scott, 2007a; Cameron, 2008; Clements, 2004; Kong, Yuen, Sodhi, & Briffett, 1999; Louv, 2005, 2007; Mannion, Sankey, Doyle, & Mattu, 2006; Munoz, 2009). Compounding this is the noted homogenising effect of globalisation that creates a
disassociation from local places (Cameron, 2008; Gruenewald & Smith, 2008). Present childhood is portrayed as a hurried and managed one (Elkind, 2001; NSW Commission for Children and Young People, 2012; Pawson, Adams, & Tanner, 2007), which may result in lost opportunities for children and young people to develop the unique place relationships that were the touchstone of past iterations of childhood (see Cameron, 2008; Nabhan & Trimble, 1994; Pyle, 2002; Sobel, 1990).

Adolescence in the life-course of childhood is of particular concern world wide with the advent of an increasingly complex globalised and digitised world for young people to navigate in their transition from childhood to adulthood (Anthony, Williams, & LeCroy, 2014; Lloyd, 2005; WHO, 2014), with mental health issues emerging as a key adolescent health and wellbeing priority (Brown, Larson, & Saraswati, 2002; WHO, 2014). Healthy development and wellbeing in adolescence determines favourable outcomes for adult life (Lloyd, 2005; WHO, 2014). Nature interactions are known to be restorative and salutogenic (Barratt Hacking et al., 2007a; Basu, Kaplan, & Kaplan, 2014; Bell & Dyment, 2008; Chawla, Keena, Pevec, & Stanley, 2014; Kaplan & Kaplan, 1995; Korpela, Borodulin, Neuvonen, Paronen, & Tyrväinen, 2014; Korpela, Hartig, Kaiser, & Fuhrer, 2001; Ryan et al., 2010), highlighting the importance of understanding adolescent modes of nature engagement that support their wellbeing in the changing world.

Place relationships contribute to young people’s development and self-discovery (Malone, 2007b; Sommer, 1990). Young people’s special and favourite places enable insights into their self discovery process (Korpela & Hartig, 1996; Korpela, Kyttä, & Hartig, 2002). However places significant to children and young people’s lived experiences of place may not be identifiable by adults (Gold & Gujar, 2007; Hart, 1979; Korpela et al., 2002; Nabhan & Trimble, 1994), which signifies the importance of including young people’s voice when considering natural and other place interactions that contribute to adolescent environmental knowing, self discovery and wellbeing. Many scholars also consider place interactions that lead to a bonding with nature as an important first step in fostering a nature caring ethos necessary for sustaining the planet (Gruenewald, 2003a; Leopold, 1966; Orr, 2011; Sobel, 2004a).

Thus this study is situated within the discourses of people-place relationships and childhood-nature connectedness through an exploration of adolescents’ valued places; which will be considered in more detail in the literature review (Chapter Two) and theoretical framing of the study (Chapter Three).

Nature, place and adolescence are all variously defined. Adolescence has been described as covering different age ranges over the second and third decade of life. The WHO organisation recently described adolescence as spanning the second decade or 10-19 years of age (2014),
while the United Nations describes ‘youth’ as the time between 15-24 (2010). For the purpose of this study adolescence is taken to mean the time of life young people are generally located in the Australian secondary schooling sector, covering the ages between 11 – 18.

Nature similarly is variously described, with related terms of outdoors, environment, ‘wildscapes’¹ and wilderness compounding the confusion. The outdoors is predominantly conceived as somewhere outside that includes natural elements (Munoz, 2009), while the environment is a term applied to natural as well as built and cultural settings. For the purposes of this study nature is defined as outdoor places that include natural elements of plants and animals. This incorporates the ‘nearby nature’ (Kaplan & Kaplan, 1995) of created and landscaped locations, revegetated and recreated wildscapes such as nature parks developed on reclaimed land, and relatively undisturbed natural (wild) ecosystems. That is, for the purposes of this study nature is considered as any green, white or blue (Korpela et al., 2014) nature-rich setting.

Place is another term that is a variously interpreted concept. Place is relational, ranging from a simple location description to complex conceptual interpretations that incorporate temporal, spatial and constructed dimensions (Cresswell, 2004; Wattchow & Brown, 2011). For the purposes of this study the places of interest to adolescents encompass both simple and complex interpretations of locations and conceptualised perceptions of relational places important to the young research participants. The focus on place provides both an intersect point and a generative space to mediate the participants’ engagement with both the research activities and with an older adult researcher/teacher.

With a focus on adolescence in connection with place and nature, this study originates in the field of environmental education, addressing nature connectedness and environmental learning/knowing. The study also extends into the broader scholarship of adolescent development and neuroscience, environmental psychology and positive psychology to interrogate the places that matter to adolescents. These connections with the study will be explored in depth in Chapter Two (Literature Review) and Chapter Three (Theoretical Framework).

¹ Wildscape is a descriptor developed for a school grounds habitat designing program I was involved in creating many years ago that I find appropriately descriptive for the areas of school grounds and parks that have been revegetated as wildlife island refuges within predominantly built environments.
Now having positioned this research within current discourses and defined the key descriptors of adolescence, place and nature used in this thesis, I turn to considering the background to the study.

**Background to the study**

This background to the study outlines the problem I encountered that stimulated the research investigation, my orientation to the research, the justification for the research field and significance of this study.

**Personal orientation to the research**

In my work in education over the last three decades I have been fortunate to be involved in environmental education in many guises – as a secondary science/biology/health/environmental studies teacher, community-based *Landcare* officer, specialist environmental education consultant working with schools, online sustainability curriculum developer and pre-service teacher educator. My various roles enabled me to work with primary, secondary and tertiary students and teachers mentoring their connections with nature and nature-focused pedagogies, gravitating towards more socioecological approaches (Kyburz-Graber, 2013) than behaviourist, sustainability-focused learning.

In recent years it has been inspiring to observe the groundswell of support for environmental and sustainability education learning programs in schools, particularly the school grounds ‘greening’ projects – vegetable gardens, wildlife habitat plantings, wetlands creation projects and the like – that have become mainstream (if not essential for attracting continuing enrolments) in primary schools in Australia and many other countries. I have noted that environmental and sustainability programs have become firmly entrenched in the primary and tertiary sector, with both students and staff engaging in these programs.

The situation in the secondary sector does not however seem to be as uplifting. After visiting and working with many schools all over the Australian state of Victoria, I have observed passionate teachers and students undertaking successful environmental education activities but these are often isolated, short-lived, reliant on individuals and not systemic. Then came an opportunity to work with my ideal environmental school - a fantastic place with a core ethos grounded in environmental and sustainability education; a school where teachers, parents, early childhood and primary children joyfully engaged with the wonderful nature-rich
environment. I was extremely disconcerted however to discover that this engagement did not extend to the secondary students (and to some extent their teachers) who were predominantly resistant and even negative towards environmental /sustainability learning and even outdoor learning - this shocked my environmental education foundations! This was the exemplar education I had been striving towards throughout my career but in practice it was not working. I watched students go from actively engaged primary ‘EcoKids’ to ‘ho hum, been-there-done-that’ disinterested secondary students. As a teacher I know that students are not empty vessels to be filled; that students bring to their learning knowledge, skills, attitudes and values that teachers use as a base to scaffold learning. This observed decline in enthusiasm and engagement in outdoor and environmental learning activities as the students reached adolescence made me wonder if my objectives for their environmental learning were failing because they were out of alignment with the adolescents’ needs. Had they lost their wonder and joy of the natural and their connection to nature in their scramble to gain peer acceptance through their Facebook interactions? And what are the implications of this disconnect with the natural surroundings for their learning and life journeys? So the problem that initiated my research journey emerged: Why is outdoor learning in the school grounds not working with secondary students?

I believe environmental education, particularly nature-based activities, is essential in the school curriculum for all students, both children and adolescents. The rationale for the inclusion of environmental education within the curriculum is explored in the following section, justifying the field.

**Justification for the field of environmental education**

Ever since Rachel Carson published her seminal book in 1962, *Silent Spring*, highlighting the detrimental environmental effects of pesticide use, there has been an awareness and concern for environmental conservation in the general population. This concern tended to remain on the fringe of community priorities, with environmentalists or ‘greenies’ viewed somewhat negatively by some from the 1970s to early 1990s. As a Landcare Officer working with north-eastern Victorian farmers in the early 1990s, I experienced cynicism and gentle mocking from some farmers who could not see any reason to change their land management practices from what their grandfathers had done, even though their land was becoming more and more salt affected (due to salinity) and productivity was declining.

Now in the 21st century, with an escalating increase in environmental degradation and well-publicised, global concerns about environmental damage, coupled with ever increasing human
populations and consumption-based lifestyles, there is general consensus that life on Earth (human and other) may not be able to continue to thrive; in fact many have identified this time of global human impact as a new era in the Earth’s history – the Anthropocene (Steffen, Grinevald, Crutzen, & McNeill, 2011). Internationally, recent statements about the urgency to address environmental problems have been part of the Bonn Declaration (UNESCO, 2009), Gothenburg Recommendations (Gothenburg Centre for Environment and Sustainability (GMV), 2008) and Ahmedabad Declaration (UNESCO - UNEP, 2007).

Looming environmental crises particularly climate change, combined with grassroots community concerns, have given governments around the world clear messages about moving environmental conservation to a mainstream priority. In the popular press in the UK, a survey of The Independent newspaper readers showed that awareness, action and concerns about environmental issues have become mainstream among the 1000 people surveyed - as a group they were found to be “people who have pretty strong basic green convictions” (McCarthy, 2008). The Australian Bureau of Statistics report that in recent times more households are implementing resource-saving measures - almost all households (99%) reuse and recycle waste; there has been an increase in the use of public transport and water/energy saving appliances; and they have reduced their water consumption (2010). The Australian government in 2009 declared that there are “clear signs” to indicate that our physical environment needs to be conserved and our current lifestyles are “unsustainable” (Australian Government, 2009, p. 6). In contrast, environmental care and connectedness have been long-standing traditional philosophies in other contexts such as India (Almeida & Cutter-Mackenzie, 2011; Ravindranath, 2007; Sarabhai, 2004).

Internationally, education has been repeatedly identified as the most proactive means of addressing environmental problems since the 1970s. Environmental education as a term had its first international airing at an IUCN conference in 1948 (Palmer, 1998) but nature-based educational experiences, one of environmental education’s key educational approaches, have foundations in the much earlier work of Dewey (1966) and others (Palmer 1998). In recent times governments around the world have focused on the sustainability aspects of environmental education, supporting the imperative of education as a means to change people’s behaviour in order to halt and preferably improve on environmental problems. For example, the Australian government’s national environmental education action plan definition of environmental education adheres to this trend:

‘Environmental education’ is defined in its broadest sense to encompass raising awareness, acquiring new perspectives, values, knowledge and skills, formal and
informal processes leading to changed behaviour in support of an ecologically sustainable environment.

(Australian Government, 2000, p. 3)

Influential scholars such as Orr (2004) and Sterling (2001) posit that humanity is in denial about the seriousness of planetary environmental problems and call for a necessary paradigm shift in education to a socioecological focus. Environmental education is a contested concept, particularly in recent years with the advent of the closely related sustainability education approaches that will be considered in Chapter Two (Literature Review). Despite the various interpretations of the architecture of environmental education there is a common consensus that there are a raft of reasons, including sustaining natural resources and providing people with nature-based experiences for health, wellbeing and personal development, that draw attention to the necessity for environmental education.

A multiplicity of environmental education practice exists, ranging from sharing the wonder of nature with young children to designing rigorous environmental management systems with business organisations (Rickinson, Lundholm, & Hopwood, 2009). As noted previously in this chapter, forging a personal connection with nature is deemed by many as a first step in developing environmental caring, however there is a paucity of research on understanding how nature relationships are developed (Mannion et al., 2006). Thus both environmental education as a field and the specific domain within environmental education of nature connectedness are relevant areas of study. This thesis contributes to the developing understanding of young people’s place and nature connectedness that is a significant area of study as I now advance.

Significance of this Thesis

Locating this research study as a ‘child-framed’ inquiry into place and nature connectedness within the lifestage of adolescence in both western modernity and remote, rural, less-privileged contexts addresses a number of silences in environmental education research that will now be outlined.

1. Adolescence is an overlooked environmental education context

Existing research shows the increasing practice of environmental education in the primary area, however there is limited research concerning the secondary school sector (Cutter-
Transformations in teaching and learning with associated benefits for students, teachers and whole schools have reported from studies of children’s gardens, school grounds improvement and ‘school ‘greening’ projects around the world (Fusco, 2001; Gough, 2005; Henderson & Tilbury, 2004; Rickinson, 2004; Wake, 2007), however the majority of these studies are situated in the primary school sector. In contrast, environmental education is seen as under-practiced and under-researched in secondary contexts (Malone, 2008; Rickinson, 2004). According to Rickinson there is “widespread neglect of outdoor spaces within the secondary school sector” (2004, p. 46). Secondary school syllabuses have been identified as too restrictive to include integrated environmental education (Kerby & Egana, 2001; Puk & Makin, 2006; Smith, 2004), with greening programs in secondary schools characterised as token and disconnected from the mainstream school culture and structure (Rickinson, 2004). As an exemplar, in the Australian Sustainable Schools Initiative (AuSSi) program, within the state of Victoria, there were only four secondary schools and four P-12 schools listed as ‘Five Star Sustainable Schools’, the remainder of the 59 listed schools were all primary schools (CERES Community Environment Park, 2010).

Teenagers are also often an overlooked group in place studies (Abbott-Chapman & Robertson, 2009; Owens, 1994), with most nature positioning place studies focusing on children, as exemplified by Hart’s (1979) influential research. Perhaps this silence in the research is due to the observed decline in interest in nature during adolescence (Hart, 1979; Kaplan & Kaplan, 1995, 2002; Korpela et al., 2002; Nabhan & Trimble, 1994; Sommer, 1990), such that researchers are dissuaded from pursuing place, particularly natural place, research with adolescents. It would seem however that this area of research is crucial in order to identify the most effective means of keeping adolescents connected with nature in a climate of marginalisation of environmental education in secondary schooling and potential adolescent disassociation from nature. To this end, this study explores factors that mediate adolescents’ connectedness to natural places.

2. Student ‘voice’ muted in the discourse

Research into students’ knowledge and attitudes and program outcome evaluations are extensive in the environmental education literature (Sauve’ & Berryman, 2003). There is however a scarcity of research into the perceptions of learners and the processes of environmental learning (Hart & Nolan, 1999; Payne, 1998; Rickinson, 2001; Rickinson et al., 2009; Titman, 1994). As Rickinson, Lundholm and Hopwood (2009) strongly maintain the “voice of the learner is a severely neglected one” in environmental education (p. 28) and that environmental learning needs to be researched in consultation with learners; a position
advocated more recently by ‘child-framed’ methodology proponents Barratt Hacking, Cutter-Mackenzie and Barrett (2013).

Thus, environmental learning processes are neither clearly understood nor extensively researched (Meyers, 2006; Rickinson, 2001). By co-opting adolescents as research partners this study addresses this missing element of the learner voice, genuinely seeking to understand adolescents’ connections to their valued and favourite places and nature, and their modes of engagement with these places. This study does not make assumptions about adolescents’ place-based environmental learning needs and perceptions; instead the ‘inside’ experts, the adolescents themselves, are part of the research team in this inquiry that employs a ‘child-framed’ methodology.

3. Environmental education research beyond western modernity is under represented

Environmental education scholars have advanced concerns that affluent minority contexts3 dominate the research such that the richness and variety of other contexts is little understood (Barraza, Duque-Aristizabal, & Rebolledo, 2003; Munoz, 2009). Rickinson, Lundholm and Hopson identify that environmental education research needs to focus on “a wider range of contexts” including less-privileged, majority countries, to ensure “robust” understandings of environmental learning (2009, p. 106). Successful case studies of environmental projects have been reported from diverse contexts but research regarding young people’s perceptions and place-based learning are rarely evident (see for example González - Gaudiano, 2007). In India specifically there is a lack of environmental research (Almeida & Cutter-Mackenzie, 2011). The inclusion of adolescent researchers from remote, rural India extends this study beyond a western modernity context, enabling an exploration of contrasts and similarities in adolescents’ important places in an affluent minority context in Australia and in a less-privileged majority context in remote, north-eastern India (that has no internet or mobile phone connectivity). Unfortunately it was logistically impossible to undertake more than one research visit to work with the adolescents in India, whereas multiple research events were possible in Melbourne. Despite this limitation the inclusion of the voice of the young researchers in India adds depth and importance to this research.

3 I use the term ‘affluent minority country’ to describe the generally materially rich, predominantly modern, western countries that are frequently described by what I consider demeaning terms of ‘developed’ or ‘first’ world with their matching opposite descriptor of ‘underdeveloped’ or ‘third’ world. In contrast I will use the less succinct but more respectful term of ‘less-privileged majority world’ to describe the contexts that do not include the economic and social advantages of countries such as Australia, New Zealand, Northern America, Western Europe and UK.
4. Contemporary nature-digital divide concerns create research gaps

Young people’s interactions with digital spaces/places (s/places) such as FarmVille and Facebook are the modern reality. The impact of digital space activities on young people’s lived experiences is a current research imperative (Edwards & Cutter-Mackenzie, 2011). Past adolescent place studies are not based in contemporary digitally-mediated lifestyles ranging from Owen’s study of Californian teenagers’ outdoor place preferences in 1988, to studies in the 1990s and 2000s (Sommer’s 1990 study in Estonia; Wals’ 1994 research with adolescents in Detroit; Owens’ work with teenagers in the Melbourne suburb of Sunshine in 1994; Korpela et al.’s work with school and university students in Finland in 2001 and 2002), and the most recent youth place studies of Owens and McKinnon in California (2009) and Abbott-Chapman and Robertson’s study with adolescents in the Australian state of Tasmania (2009). Technology impacts in these past adolescent place studies would have been absent or very different to the current situation, indicating a need for this research into adolescent place preferencing and interactions in contemporary, digitally-infused lifestyles.

Adding to the unchartered territory of adolescents’ digital-physical place preferencing are the factors of (1) the focus on pre-schoolers and children in the popularist, emotive calls for (re)connecting children with nature (see for example Louv, 2007); and (2) the observation that the development of the young person - nature relationship is under-researched (Mannion et al., 2006; Pointon, 2013); that effect a sideling of adolescence in the discourse. All of which indicate that this adolescent place and nature connectedness research study is timely in addressing gaps in understanding adolescents’ relationships with place and nature.

5. School grounds are a secondary sector research and practice blind spot

The school grounds as an environmental learning resource is under-utilised and under-researched (Chillman, 2003; Dyment, 2005b; Malone, 2008; Mannion et al., 2006; Rickinson et al., 2004; Rickinson & Sanders, 2005) indicating a blind spot in environmental education research. Chawla et al. (2014) have also identified a need for researching student wellbeing in relation to school grounds environmental activities. These views reinforce the significance of the strong focus in this study on adolescents’ school grounds as one of their everyday places.

Significance summary

This research study is significant in that it addresses gaps in the literature and emerging concerns of:
• A clearly identifiable gap in the research literature concerning adolescents and the secondary school sector;
• A lack of contemporary understandings of young people’s perceptions about the physical and digital places they inhabit;
• A dearth of environmental education research conducted in less-privileged majority contexts;
• The increasingly popular childhood-nature discourse that almost ignores adolescents; and
• School grounds as an overlooked place of environmental education practice and research.

In seeking to address these gaps in the literature and to understand adolescents’ place connections and engagement with environmental learning, this study is guided by the following research intentions and research questions.

**Research intentions**

From the provocation of an observed decline in student engagement with school grounds environmental learning classes and questioning the mismatch of my teacher perceptions with adolescents’ needs and interests, employing a research methodology to capture students’ perceptions about their place imperatives is suggested. In the following I list the research intentions for this study that enabled investigation of adolescents’ valued places and place interactions and that culminated in the research questions that directed this study.

1. **Enable the adolescents’ agency and voice**

Co-opting the inside experts as participants in the research, I believe is crucial for gaining an authentic perspective on the places and place-based activities that matter to adolescents. Employing a ‘child-framed’ methodology (Barratt Hacking et al., 2013) to include adolescents as active partners in the research activities is a keystone approach.

2. **Use a framing of place**

Place as an organising principle for the study creates a generative, flexible focus for environmental education research (Greenwood, 2013) that softens the divides between adult researchers and teenagers, intentional and lived learning experiences, and between affluent minority and less-privileged majority contexts.
3. Highlight nature

Nature and nature connectedness are my interest so natural places provide a particular focal point for exploration in the study and enable me to work the terrain that scholars before me have identified, thereby strengthening my research and contributing to building the field.

4. Work the spaces between

As identified in the Prologue, this research is symbolised as located in the ‘spaces between’. A research intention is to work the space between that has been varyingly termed the ‘third space’ (Rutherford, 1990), ‘border crossings’ (Giroux, 2005) and ‘contact zones’ (Somerville, 2007; Somerville, Davies, Power, Gannon, & de Carteret, 2012). As articulated earlier place as a concept provides a means of breaching some inherent divides within the study. A focus on place and nature also provides the opportunity to work across discipline boundaries, strengthening the study by drawing from place psychology, developmental theory, social ecology theory and positive psychology, as well as from environmental education research literature.

These broad learning intentions distilled into the following research questions that directed the study:

Research questions

My central research question is:

What local places are significant to adolescents and how do they engage in those places?

With subsidiary questions:

- How do adolescents perceive the natural environment as part of the places and spaces (physical and digital) they inhabit?
- What environmental learning is associated with adolescents’ priority places and spaces?
Chapter conclusion

This introductory chapter establishes the scope and purpose of the study founded on a focus on adolescents’ engagements with place and nature in response to an observed decline in secondary student engagement in outdoor environmental learning. The justification for this study has been established. Clearly there is a growing concern about the changes occurring due to human impacts and the continued health and viability of the world’s natural systems. Education has been identified as instrumental in addressing the need for care and conservation of resources and ecosystems. Nature connectedness as promoting an environmental caring philosophy is identified as a goal in environmental education.

The study of adolescent groups, student perceptions, less-privileged majority contexts, adolescent place preferencing in a new landscape of digital connectedness, and school grounds learning are significant blind spots in the research literature that this study addresses by focusing on enabling adolescents’ agency and voice, framing research activities around place, foregrounding nature connectedness, and illuminating the creative spaces between dimensions of the study.

This exploratory study of what places and place interactions matter to adolescents is structured according to the following thesis structure that outlines my research journey.

Structure of the thesis

Chapter One introduces the study, positioning it within environmental education research discourses and establishing the rationale and significance of study.

Chapter Two reviews the literature connected to the research, establishing what is already known about the area of study. Then Chapter Three examines the theoretical background of adolescence, people-place relationships and social ecology influences on development and learning to advance a theoretical framework of mediating factors for place significance. The literature background and theoretical framework provide a basis for analysis and interpretation of the research findings in Chapters Six to Nine.

In Chapter Four, I describe the mixed-method, ‘child-framed’ methodology of the study employed to investigate the research questions of what places and associated interactions are valued by adolescents. The data collection and analysis methods are detailed, beginning with my adolescent co-researchers’ phenomenological activities, followed by an online student survey to broaden and build findings. The three school community settings (two in Melbourne
and one in India) that the adolescent participants are drawn from are introduced in Chapter Five.

In Chapters Six, Seven and Eight I present and analyse the data, beginning with data collected by the adolescent researchers in a remote, rural village in northeast India (Chapter Six), followed by the findings from the adolescent researchers in Melbourne (Chapter Seven), and then the Melbourne survey data (Chapter Eight).

The thesis concludes with Chapter Nine where I present a synthesis of the research findings, drawing on previous scholars’ research and the theoretical framework to illuminate conclusions and implications from this study.
CHAPTER TWO

LITERATURE REVIEW

Introduction

The following review identifies and evaluates the key concepts that form the foundation for this study and positions the research in the developing story of outdoor learning in the everyday lives of young people. To this end this review is presented in four sections: The first section, Environmental education – an accommodating space, defines environmental education through an historical overview of environmental education’s establishment as a world priority. Section Two, Environmental education in the contexts of Australia and India, extends the discussion of environmental education to a focus on the affluent minority context of Australia and the less-privileged majority context of India, the settings where this research is located. Section Three, Environmental and naturalistic learning, explores what constitutes learning with a focus on the evolving domains of nature-based and place-based experiences. In the fourth section, Adolescence in the context of environmental education, this review turns attention to the central figures in the study, adolescents, concentrating on the discourse related to adolescents and schooling, adolescents and learning, and adolescents and environmental education. The final section, Adolescents and belonging, explores issues of adolescents’ connectedness to the places they inhabit including school and the new landscape of digital connectedness.

Section One: Environmental education – an accommodating space

This study is located within the field of environmental education, an area that has developed and changed over time in keeping with current knowledge and interests to elicit multiple and, at times, contested discourses. In this section I identify the historical and current views of environmental education to position this study within the field and identify the conceptualisation of environmental education used for the study. To this end, this section of the review explores the origins and expanding branches of environmental education discourses.
Environmental education precursors in traditional societies

E. O. Wilson (1984) and others (see for example the works in Hasbach & Kahn, 2013; Kahn & Kellert, 2002) have proposed that an instinctive connection to the natural environment is part of the human psyche, what Wilson terms ‘biophilia’. In traditional societies ecological knowledge and connection emerges from a lived educational experience of ‘reading’ the land for survival mediated by elders and from different ways of coming to know the land (Cameron & San Roque, 2003; Wheaton, 2000). At the core of many ancient cultures there is a strong intertwining of environmental care with spirituality that is entrenched in the cultural education passed down between generations. Examples of this are Australia’s indigenous peoples, inhabitants of Australia for tens of thousands of years before Europeans, who have a culture grounded in connecting to ‘country’ (Flannery, 2002; Gammage, 2011) and the Buddhist communities in India and Nepal whose life philosophy is to live harmoniously within natural and societal environments (Chansomsak & Vale, 2008). This traditional form of education is primarily environmental education akin to nature education (Nabhan & Trimble, 1994).

The close relationship between education and the natural environment has continued on into post-industrialised cultures, expressed in different guises depending on the times, although the study of the environment in education in modern curricula is frequently marginalised (Gough, 2007; Orr, 2011), with educational knowledge and skills such as literacy and numeracy currently privileged in Australia and other minority contexts (ACARA, 2012a).

Natural history connections

Fascination with the natural world was expressed as natural history studies mainly in the nineteenth century; a genteel pursuit for educated Europeans of the times with a rich history of scientific and exploratory endeavours across England, Europe, North America and Australia, with Charles Darwin (1809 – 1882) the best known representative from this era of nature exploration and analysis (Armstrong, 2000; Darwin & Barlow, 1993).4

Nature study, where the learner engaged with the living and non-living elements of the natural surroundings, became a common subject in schools during these times as exemplified in 1910 when the Victorian State Minister of Public Instruction (in Australia) instructed that vegetable gardening or other agricultural pursuits be taught (1910). In this era, Dewey’s educational

4 Long-serving environmental education organisations such as the Audubon Society in the United States and the Gould League in Australia trace their origins to these times (Gould League, 2010).
approach of experience based or experiential education (1897) has synergies with the notion of experiences in the natural world, such that many views of environmental education today encompass this under the banner of experiential environmental education where the experiential nature of environmental education is at the core of the educational experience (see for example Brody, 2005; and Cutter-Mackenzie & Fulton, 2014).

**Environmental education as internationally defined**

The initial international introduction of the concept of environmental education was at the first global environmental conference, the United Nations (UN) Conference on the Human Environment was in Stockholm, Sweden in 1972 (United Nation Environment Programme (UNEP), 1972), although earlier use of the term has been noted in 1948 (Palmer, 1998) and 1969 (Wals, 2010). In fact the defining of environmental education on the world stage has been guided by the UN and its subsidiaries and various inter-governmental /agency congresses over the last three decades (Gough, 2013). The declarations and recommendations on the international stage, derived from experts and chief advisors of the time, have significantly influenced world thinking and persuaded governments to take action (Lotz-Sisitka, 2009), which in turn influences the experts, advisors and analysts. This reciprocity situation has, as would be expected, given rise to dissention and much debate about what environmental education and its more recent relative, sustainability-focused education, encompass. In order to make the term environmental education meaningful for the context of this research study, I now briefly trace the history of the use of the term environmental education and explore the prominent critiques of the different approaches that have developed, with the view to defining my interpretation of environmental education and where this study sits within this.

**Early conceptualisations of environmental education**

The modern iteration of education related to nature and environmental matters has its origins in the conservationists and activists of the 1960s and 1970s typified by Rachel Carson’s (1962) emotive imagery of DDT impacts on bird populations as described in the previous chapter. It was during this time that the actual term, environmental education, came into use, predominantly in affluent minority contexts. The Belgrade Charter for a global framework for environmental education was adopted at the close of the 1975 international conference on environmental education, setting the agenda for environmental education with a broad focus on predominantly an appreciation and preservation approach through the development of knowledge, skills, attitudes, values and a commitment to work towards ecological and social
wellbeing (UNESCO-UNEP, 1975). In 1977 in Tbilisi, the delegates of the Intergovernmental Conference on Environmental Education declared the need for similar educational strategies to address increasingly reported environmental problems, recognising that the term ‘the environment’ includes the natural as well as the social and cultural environments people inhabit. The conference declaration and recommendations (Tbilisi Declaration) postulates guidelines for the implementation of environmental education, focusing on preserving environments and acting for future good (UNESCO, 1977). The Tbilisi Declaration was pivotal in establishing environmental education as a global movement (Lotz-Sisitka, 2009)

*Sustainability terminology emerges in the discourse*

In 1987 the World Commission on Environment and Development commissioned the Brundtland Report, *Our Common Future*, which brought to the world stage the concept of sustainable development, elucidating the now commonly used definition as:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

(World Commission on Environment and Development, 1987, p. 41)

The Rio de Janeiro based UN Conference on Environment and Development in 1992 galvanised governments around the world into environmental sustainability-focused actions, with many committing to these as detailed in the intergovernmental agreement, *Agenda 21*, including a focus on educational activities (Tilbury & Cooke, 2005). This was a pivotal point in environmental education history, when this marginalised educational field, which did not fit into traditional knowledge disciplines (such as the sciences, arts or humanities), started to gain mainstream credibility with the impetus of governmental policy and funding around the world. Sustainable development provided a focus for education on environmental matters towards targeted strategies addressing issues involving interrelated ecological and societal environments.

By the mid to late 1990s the practitioner slogan for environmental education became education that was *about, in and for* the environment (Jickling & Spork, 1998); this gave educators a clear curriculum direction in this open and varied field that was readily adopted; furthermore this gave researchers broad categories for classifying environmental education activities. The *about* and *in* categories of environmental education are self-explanatory, where education *in* the environment is postulated as environmental educational activities taking place in nature; education *about* the environment is conceptualised as the knowledge about
environments and issues; and education for the environment is advanced as advocacy for the environment (Cutter-Mackenzie, 2004; Jickling & Spork, 1998). The for aspect however seems to have evolved with time. Initially this was interpreted as activism targeted at environmental issues, taking a critical perspective on environmental policy and practice (Fien, 1993; 2000). The for type environment educational activities, with the synergies evident between this and Education for Sustainable Development (ESD) or Education for Sustainability (EfS), started a morphing of environmental education into ESD as the notion of sustainable development gained momentum (Jickling & Wals, 2012). This in turn gave rise to concerns within the environmental education community that ESD (or its variations; Education for Sustainable Development (EfSD), Environmental Education for Sustainability (EEfS), Learning for Sustainability (LfS), etc.) was too narrow in focus, relegating other contexts (such as nations that were not ‘developed’) and the traditional naturalistic studies to the background.

Prominent international environmental education thinkers, Jickling and Wals have regularly written (separately and together) to illuminate this discussion (Jickling, 1992, 2001; Jickling, 2003, 2010; Jickling & Wals, 2012; Wals, 2010; Wals & Jickling, 2002; Wals, 2009), such that aspects of their commentary will now be interwoven with the continuing unfolding history of environmental education.

In 1997, five years after the advent of the Agenda 21 agreement, at the Thessaloniki UN Conference on Environment and Society, the outcomes from the conference included the highlighting of education as an essential foundation for sustainability and a strong emphasis on the reorienting of not specifically environmental education but all education towards a sustainability focus. The terminology drift from environmental education to ESD is reflected in the conference declaration with a description of ‘education for environment and sustainability’ (UNESCO, 1997). Jickling and Wals, in a joint commentary piece (2012), note that the intent seems to be for ESD to replace environmental education as the international standard. The establishment of the UN Commission for Sustainable Development in 1996 exemplifies this.

By the dawning of the new millennium, with the widespread sense of urgency around the impacts of environmental degradation and changes, and concerns regarding resource supplies dwindling and the ever expanding human population, the concept of sustainable development and educational activities targeted towards this became firmly entrenched. At the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, progress on Agenda 21,
now ten years on, was reviewed, updated and reaffirmed; leading to goals and targets for sustainable development which became the *UN Millennium Declaration*, reinforcing the signatory countries’ commitment to sustainability. From WSSD there was a clear recognition of education as a cornerstone for sustainable development and from this developed a recommendation from the Summit for a *UN Decade of Education for Sustainable Development (2005-2014)* which was adopted by the UN in December 2002 (Tilbury & Cooke, 2005). In 2005 the UN members pledged to eight broad health, social justice, human and environmental sustainability development goals, the *Millennium Development Goals*, again aiming to achieve these by 2015 (United Nations, 2013), reinforcing the global determination to achieve sustainable development in the very broadest sense and reinforcing the interrelatedness of ecological and social issues.

Jickling and Wals (2012) note that in the 2002 UN resolution for the *Decade of Education for Sustainable Development* (DESD) the importance of the natural world is not identified. In contrast, the *Bonn Declaration* that resulted from the UNESCO World Conference on Education for Sustainable Development in 2009, does reference valuing all living things while still affirming the importance of ESD but with no mention of environmental education (UNESCO, 2009). This was despite the earlier call in the *Ahmedabad Declaration* in 2007 at the International Conference on Environmental Education that indicated that “environmental education processes support and champion Education for Sustainable Development” (UNESCO - UNEP, 2007, p. 1); exemplifying the continuing controversial discourse about the positioning of environmental education in relation to ESD. Jickling and Wals, again in their 2012 ‘conversation’ article, perceive a softening in the stance regarding the ESD dominance over environmental education in current times; that there is more support for environmental education within the ESD advocates as a valid vehicle for fundamental learning activities around “societal critique, deep democracy, questioning capitalism, (re)connecting people with each other and with the natural world” (Jickling & Wals, 2012, p. 53). By 2012, at the return to Tbilisi 35 years on from the first congress held there, the Intergovernmental Conference on Education for Sustainable Development: Tbilisi+35 produced the *Tbilisi Communiqué*, that includes an acknowledgement of the importance of respect for nature and the development of a sense of place as “critical for promoting a society that cares for the environment” as modelled by indigenous people (UNESCO & UNEP, 2012, p. 3).

**Contested conceptualisations**

From this potted history of the evolution of the significance and positioning of environmental education on the world stage, it can be seen that it is an accommodating field that has
survived in the international discourse despite the advent of the seemingly conflicting, even subsuming, approaches some proponents of ESD tended to promote. Sauvé (2005) has identified 15 different interpretative standpoints or ‘currents’ existing within environmental education, only one of which being the sustainable development theme, although she notes that this has become the dominant perspective. There are often widely differing and strongly contested views about the value of and relationship between environmental education and ESD. By 2000 there was even a high-level, moderated, international debate on the topic (Hessekink, van Kempen, & Wals, 2000) and a whole volume of the Canadian Journal of Environmental Education devoted to this in 1999, with a volume of the Environmental Education Research journal focusing on “The Language of Sustainability” in 2001. The key discords tend to fall into the following three categories:

**Discord area 1**: Use of ‘development’ terminology in ESD is seen as limiting whereas environmental education is viewed as encompassing a broader focus, including a nature/natural environment focus:

In 1994 Jickling, an active protagonist for the view that ESD is limiting, first posed that he did not want his children to be educated for sustainable development, arguing that education ‘for’ anything is against the ethos of education in that the ‘for’ directs activities limited and determined to what the ‘for’ focus is about. In ESD, sustainable development is privileged. Jickling has continued to hold to this call for a multiplicity of approaches encompassed under environmental and sustainability education in his own and collaborative writing over the years (for example Jickling, 2001; 2003; and with Wals 2002; 2012). He argues that other environmental values need to be included into practice and theory, not just those of sustainability but also those of “cultural, spiritual, aesthetic and intrinsic value” (2001, p. 178) that he views as excluded with an ESD approach. Many others concur with his views as demonstrated in the far reaching ESDebate (Hessekink et al., 2000).

In contrast, many others contributing to the ESDebate (Hessekink et al., 2000) felt that ESD has a broader agenda than environmental education, incorporating social justice, critical and futures perspectives – a view shared by many leading environmental/sustainability scholars: For example, Tilbury and Cooke (2005) advance that sustainability or sustainable development is more than adding sustainability related labels onto the environmental/ecological, social and economic aspects of our lives; that it is a complex integrated process of change and capacity building that is not narrow at all but in fact complex and challenging. This view of ESD as an embracing one is shared by Fien (1997, 2004) who sees ESD as developing knowledge,
skills and values around the complex interrelated ecological, sociopolitical and economic systems of our world. While Huckle (1993, 2010) proposes an ESD with a critical perspective emphasis as an holistic approach essential to educate knowledgeable and skilled global citizens that can navigate the complex economic, political and cultural forces of the modern world to act for ecological and social justice.

So both the environmental education and the ESD advocates view their preferred approach as the more encompassing. Both ‘environment’ and ‘sustainability’ are acknowledged as difficult terms to define and that different people construe these in different ways (Skamp, 2009; Tilbury & Cooke, 2005). So possibly neither environmental education nor ESD is more dominant, that it is perhaps more a matter of interpretation and emphasis in an increasingly complex field that allows different foci and perspectives. As Stevenson maintains ”What, if anything, has changed is the extent of the scope, complexity and ambiguity of the aspirations of the field“ (2007, p. 270).

**Discord area 2:** *ESD is seen as moralistic and politically-driven whereas environmental education is viewed as a more democratic approach:*

Jickling, and Spork (1998) have aired concerns that as ESD is frequently a ‘top down’, government-driven initiative, it has elements of indoctrination. Similarly Richard Kahn (2008) argues that ESD is a politically-driven ‘bandwagon’ movement that is more about scoring political gold stars than about addressing local environmental concerns and issues.

Refuting such claims, Fein (2000) expounds that ESD is not about indoctrination at all; that ESD approaches encourage development of citizenship through democratic teaching. Similarly Tilbury, Fien, Stevenson and Schreuder (2002) maintain ESD follows critical educational and participatory constructs. Wals (2009), in his mid-term review of the Decade for ESD, confirmed that ESD has been driven by governments and policy but that ESD practices were aimed at capacity building and utilising democratic decision making approaches.

As Robottom (2007) maintains, there will always be discord between ecological and economic interests. ESD is intrinsically connected to the economic, which will always separate it to some degree from the more nurturing and naturalistic preferences of some environmental education advocates.
Discord area 3: Environmental education is seen as not pragmatic enough, as not delivering real outcomes, including behaviour change whereas ESD does:

A general dissatisfaction with the effectiveness of environmental education has been suggested by a number of writers (see for example Barraza et al., 2003; Kahn, 2010). Their claims are based around the disappointment that despite many years of environmental education there has not been a generalised change in pro environmental behaviours amongst our populations, and environmental education still tends to be viewed as a marginal area, relegated by perceptions of it as focused on nature studies and environmental science, compared with ESD that is generally regarded as more broadly socioculturally applicable. Sterling (2010) adds to the discourse highlighting that ESD is outcomes focused. Jickling (2001) concedes that some of the outcomes of environmental education, such as the development of values, are not easily measured in the way that sustainability outcomes are but maintains that this does not make them less valuable. He also contends that one of the reasons behind the increasing prevalence of sustainability focused curriculum in our schools is that teachers find sustainability learning activities are accessible, conceptual and practical ‘chunks’ that can readily be implemented in the curriculum.

A key area of discord not included in the preceding discussion is the discourse around the relationship between environmental education and ESD; which of these is the overarching concept and if they even intersect at all (see for example Eilam & Trop, 2011; Hessekink et al., 2000). As Jickling and Wals (2012) maintain, it is not the terminology used but the results that matter; a position echoed by Robottom (2007). Sauvé (2005) has ‘celebrated’ the richness of environmental education approaches through identifying 15 distinct themes within the field, of which only one is sustainable development; while Hart (2013) postulates an encompassing field enabling choice in positioning as determined by interests and perspectives. What is obvious in the contested conceptualisations of environmental education is the passion scholars and practitioners bring to the discourse in their persuasive attempts to influence the thinking and action within the field (Ferreira, 2009). Therefore this issue of ESD positioning within the field is only mentioned in passing, as this study is not concerned about assigning labels but about uncovering the grassroots reality of what places matter to teenagers and how they engage with these places.
Theory – practice impacts

Environmental education is both philosophy and practice (Robottom, Malone, & Walker, 2000). Ergo, the practical application of environmental or sustainability education will be influenced by a practitioner’s interpretation of what environmental education or ESD approaches mean. Some teachers demonstrate little understanding of the philosophy and knowledge of environmental education, consequently limiting environmental education practices (Cutter-Mackenzie, 2004). For many teachers the obscurity regarding the theory and practice of environmental education and ESD may present another knowledge-practice barrier.

A potential pedagogical approach which addresses a lack of teacher environmental education knowledge that personally appeals is that of action competence as proposed by Jensen et al. (see for example Jensen, 2000, 2004; Jensen & Schnack, 1997, 2006). This approach is a democratic and empowering one that is grounded in enabling students to research, make decisions and take positive action around issues that impact on their lives from a knowledgeable and skillful position that is not reliant on teacher-dissemination of knowledge. This enabling action competence approach also resonates with critical perspectives and the emancipatory ideals of philosophers such as Freire (2000) as the students and teachers are partners in the learning journey. Gaining the insight, knowledge and skills as a basis for enabling action, according to Jensen (2000), requires consideration of more than just the effects of the issue being investigated but also requires exploration of the causations, visioning of future possibilities, and identifying and actioning the strategies to achieve these future scenarios; an environmental education approach Sauvé (2005) types as ‘problem-solving’. I have found this to be a very effective framework for guiding pedagogy that delivers on both practical outcomes and on working towards developing the less tangible personal and social competencies and values building. This pedagogical approach is not just about undertaking learning activities but about students committing to real action from a position of competence that can be applied to many educational endeavours, not just environmental education. Action competence, using democratic and participatory practices, has been seen as a supporting and integrating technique across both environmental education and ESD approaches (Fien, 2000; Wals & Jickling, 2002).

From this and the previous descriptions of seminal and influential ideas, congresses and declarations over the last forty years, it can be seen that conceptualisations of environmental education are varied. Initially a marginalised field on the edges of mainstream schooling and thinking, it has progressively become more widespread with the addition of sustainability into the discourse in conjunction with increasing public and government concerns about escalating
environmental and associated social issues around the world. Amongst much debate and dissent about the place of ESD in the environmental education story during the last 20 years, ESD has become “the dominant international policy discourse” (Stevenson, 2007, p. 265). ESD has not however become a morphed version of environmental education; nor has environmental education been overwhelmed by ESD but remains a strong voice in the discourse, as is exemplified by the recent publication of the first *AERA International Handbook of Research on Environmental Education* (Stevenson, Brody, Dillon, & Wals, 2013) and the major academic journals for the field carrying ‘environmental education’ in their titles. Thus environmental education, despite the dominance of ESD in the discourse (Stevenson, 2007) retains a strong presence. As Jickling notes “there is a growing acknowledgement and respect for the importance of parallel dialogues” in the discourse suggesting less divisiveness between environmental education and ESD advocates (2010, p. 33).

Greenwood and McKenzie (2009) and Wattchow et al.’s (2014), description of environmental education as a socioecological encompassing discipline, that melds both the ecological and social justice perspectives describes a valuable conceptualisation for both the theory and practice of environmental education that resonates with my own perception of environmental education. This is in keeping with an earlier definition of environmental education from Tilbury and Cooke (2005) that highlights the importance of both engagement of the learner and the inclusion of ecological and social systems:

> Environmental education ....(is) the overall field of education which engages learners with their environments, be they natural, built or social.  
> (Tilbury & Cooke, 2005, p. 113)

This definition provides a simple socioecological approach to environmental education that can encompass many other educational approaches that I (and others, see for example Sauvé, 2005) consider incorporated under the environmental education umbrella: such as outdoor learning, place-based learning, nature studies, experiential learning, sustainable development, project-based learning, environmental studies and action competence. Thus I have an encompassing view of environmental education that includes ESD as part of a suite of environmental education approaches such that I use the term environmental education in this study as a broad, accommodating descriptor that includes ESD. As Wals (2010) has pointed out, that when interpreted from an open and encompassing perspective, there is little difference between environmental education and ESD.
As Annette Greenall Gough noted over 30 years ago, “environmental education means something different to each person... (this) is determined by personal interpretation” (1978, p. 1); a contention echoed by Hart in 2002 and that is still currently applicable.

Section summary

This section of the review explores how environmental education has evolved from early naturalist influences to become a broadly applicable ethos of educational products and processes focused on the environment – itself a broad term open to interpretation as highlighted by the appearance of the term ‘sustainable development’ into the environmental education discourse in recent times. The disputed conceptions of the value of environmental education and the more recently arisen sustainability education (predominantly ESD or EfS) were briefly outlined such that, despite strongly held views amongst many researchers and practitioners worldwide about the relative merits of privileging one or the other approach, the view taken here is that if one takes an accommodating, encompassing view of either then they become almost interchangeable. This reflects the notion that both terms are broadly applicable and blurred concepts open to personal interpretation, concluding with the preferring of the term environmental education for the purposes of this study as I view environmental education as an encompassing, socioecological concept.

Having explored a brief history and positioning of environmental education in the world, I now turn to focusing on environmental education in the two countries where this research is located; Australia and India.

Section Two: Environmental education in varying contexts

The environmental education discourse described in the previous section is reflective of the generic, international portrayal of environmental education through the literature. Naturally the environmental education practices and nuanced understandings vary with contexts. There are disparities however between environmental education in affluent western modernity style settings and that of less-privileged majority areas of the world, with concerns that using an affluent minority society style environmental education as a reference point denies the validity of other cultural perspectives (Sauvé, 2005). Much of the research and exemplars reported in the literature are from affluent minority societies, which results in a skewed portrayal of environmental education, as the ‘voice’ of environmental education in other contexts is underrepresented (Barraza et al., 2003).
This research study embraces diversity in contexts through research activities undertaken with adolescents from two very different settings – the affluent, minority context of Australia and the less–privileged majority context of the remote, traditional village society of the Eastern Himalayan region of north-eastern India. The positioning of environmental education in these two contexts is explored in the follow section of this review.

Affluent minority styled environmental education- the Australian context

This research study is predominantly situated in two schools in Melbourne, Australia, so the contextualising of environmental education for these setting will focus on influences in the state of Victoria and national directions

The history of environmental education in Australia

Australia has an established record in environmental education. Australia’s oldest environmental organisation, the Gould League (named in honour of the English naturalists, John and Elizabeth Gould, who first documented Australian birdlife), was established over 100 years ago in 1909 as a native bird protection club, later expanding to ‘nature studies’ in the 1970s and 1980s with publications and education programs supporting mainly children and schools in their exploration of their natural environment. Gould League pioneered sustainability education (even before this term became commonly used) with the establishment of Australia’s first recycling education centre in 1990 (Gould League, 2010). Gould League, with another local environmental group, CERES, pioneered the Sustainable Schools program in Australia during 2002 – 2005, which has now developed from this grassroots program into the national AuSSi (Australian Sustainable Schools Initiative) program (Gould League, 2010). This brief side journey into the history of the Gould League demonstrates that Australia has a long tradition of environmental education in the practitioner sphere. In recent years, with the advent of sustainability-focused education and funding for such programs, passionate environmental education practitioners are well represented not just in NGOs and schools but also in local, state and national government agencies.

Australian iconic literature and arts have a romantic relationship with the idealised tough Aussie outdoors person. This is evident in the iconic literature from Banjo Paterson and Henry Lawson expounding the qualities of bushmen and women in stories of The Drover’s Wife and The Man From Snowy River (Lawson, 1985; Paterson, 1983, respectively). Despite the fact that most of us now live in the cities of Australia there still seems to be a cultural identification with Australians as people of strength and skills in outdoor pursuits, such as the remembered
bravery of the ANZAC soldiers storming the beaches in Turkey, the Australian sportsmen and women representing their country and the iconic bronzed Aussie in the sun and surf (Nakagawa & Payne, 2011) – all with a strong connection to the outdoor environment, be it the bush, beach, farm or other outdoor green recreation space.

Love of and engagement with ‘the bush’ and other versions of the outdoors as seen from Australian cultural heritage, everyday media and the increase in environmental education practitioners working with schools, government, agencies and NGOs, is also reflected in the academic world. Australia has an established history of discourse and research in environmental education and outdoor learning. High profile environmental education researchers such as (Greenall) Gough have been publishing since the late 1970s. The Australian Journal of Environmental Education has been published since 1984 and the Australian Journal of Outdoor Education from 1996. These are relative newcomers compared to the North American based Journal of Environmental Education that commenced in 1969 but of a similar timing to related international publications such as the Canadian Journal of Environmental Education that had its start in 1996 and the British Journal of Adventure and Outdoor Learning that commenced under the title of Journal of Adventure Education in 1981. This academic focus on environmental education has in turn impacted on the environmental education practitioner world and that of government policy and planning, from Gough’s early Environmental Education Teachers’ Handbook in 1978 to the current situation where the new, first-ever nationally applicable Australian Curriculum, that is being rolled out in schools during 2011-2014, mandates ‘sustainability’ as one of three cross-curricular priorities across all learning school-based for the whole country (ACARA, 2012a).

State (Victorian) and national government support for environmental education

There have been many state-based or national ministerial policies, statements or action plans in the interval between the early explorations of environmental education in the literature in Australia and the inclusion of sustainability in the national curriculum that have contributed to the building presence of environmental education approaches within mainstream school education (see Table 2.1). The titles of these edicts mirror the advent and increasing prevalence of the term sustainability on the world stage as seen in the listing below, commencing with the early appearances of environmental education in the Victorian state (where the Australian schools of this study are based), then mapping the national timelines of environmental education significance.
<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Ministerial Policy: Environmental Education, Office of Schools Administration, Ministry of Education Victoria</td>
</tr>
<tr>
<td>1998</td>
<td>Investing in the Future: Environmental education for Victoria’s schools, Education Victoria</td>
</tr>
<tr>
<td>2008</td>
<td>Melbourne Declaration on Educational Goals for Young Australians (includes a focus on environmental sustainability), Ministerial Council on Education, Employment and Youth Affairs</td>
</tr>
<tr>
<td>2011</td>
<td>The Australian Curriculum, Cross-Curriculum Priority: Sustainability, Australian Curriculum, Assessment and Reporting Authority</td>
</tr>
</tbody>
</table>

As Table 2.1 identifies, environmental education and versions of sustainability education have become increasingly prominent in the Australian education sector in more recent decades. The Australian government maintain through these documents that:
The principles and practical application of ‘education for sustainability’ ... (are) fundamentally important to addressing the critical global challenges we all face. Through information and awareness, but more importantly by building people’s capacity to innovate and implement solutions, education for sustainability is essential to re-orienting the way we live and work and to Australia becoming a sustainable society.  

(Australian Government, 2009, p. 3)

**Current Australian environmental education practice**

Despite this more recent proliferation of environmental and sustainability education as part of the national educational discourse, environmental education and outdoor learning still tend to be relegated to the spaces between the key learning areas of the formal curriculum. As Gough in her ongoing mapping of the trends in environmental education in Australia has highlighted, there is a continuing ‘tension’ around the implementation of environmental education, that there is a “seemingly constant battle for survival in the formal curriculum” (2011, p. 264). Although not a key player in the new Australian curriculum framework, environmental/sustainability education is less marginalised than in past. In my work with schools I have noticed in the last ten years an increasing prevalence of school grounds located environmental education programs, predominantly in primary schools, centred around a themed garden or greening project such as a kitchen garden, butterfly garden, wetlands creation, etc. This focus is not however common to all schools and furthermore environmental education is limited in secondary schools (Cutter-Mackenzie, 2010; Gough, 2007; Tilbury, Coleman, & Garlick, 2005). As elsewhere in the world, Australian schools respond to the pressures of working towards standards and national metrics testing in different ways such that in their crowded curriculum environmental education is varyingly prioritised in each school, with the full range of the spectrum represented from no environmental education to environmental/sustainability education as a foundation of the school curriculum and ethos. This is a similar story to other affluent minority countries as demonstrated in literature case studies and research (see for example Mannion et al., 2006).

This research study also involved one school from the remote Eastern Himalayan region of India, so I now turn to briefly exploring the environmental education context relevant to this setting.
Environmental education in a less-privileged majority context – the India example (with a special focus on the remote Eastern Himalayan region)

Much of the environmental education practice and research story has been located in the affluent minority worlds, nevertheless the conceptualisation of environmental and sustainability education in less-privileged majority worlds should, and for success often must be, different to that often portrayed in the literature, as befitting different contexts (Barraza et al., 2003). People of non-western style contexts often have different relationships with nature compared to those of the west and these have powerful influences on their culture, spirituality and education that already resonate with an affluent minority world notion of an environmental education ethos but may not be aligned with formal schooling (Kahn, 2008).

In India there is a longstanding ethos of environmental care and connectedness founded in traditional philosophies: the Hindu religion, and its antecedent the Aryan culture, have espoused the value and interconnectedness of all life forms for thousands of years; the famous Indian leader, Gandhi, educated about careful consumption and embedded within the Indian constitution is a call to all citizens to care for the environment (Almeida & Cutter-Mackenzie, 2011; Ravindranath, 2007; Sarabhai, 2004). Allied with an environmental care ethos is the collectivist foundations of many less-privileged majority contexts where the cultural imperative is for the family/community/societal greater good which contrasts with the predominantly individualistic approaches in many affluent minority contexts (Panelli & Tipa, 2007). Hämäläinen and Michaelson (2014) recently advanced that greater social coherence needs to be restored in our affluent societies to address the changes affecting society and the planet.

Incorporating environmental education within the education system in India has been the focus of various government edicts since 1984, from the establishment of the Centre for Environmental Education (CEE) in 1984 to the most recent Indian Supreme Court ruling update on the implementation of environmental education in schools in December of 2010 (CEE, 2012; IGES (Asia-Pacific), 2001; Ravindranath, 2007; Sarabhai, Raghunathan, & Jain, 2002; Sarabhai, 2004).

Through these many initiatives, India has produced some environmental education success stories and high class curriculum materials (Sarabhai, 2004), however the systematic implementation of environmental education in the schools has been very limited (Almeida & Cutter-Mackenzie, 2011; Tilbury et al., 2002). India is a metrics-driven education system so their teaching tends to be didactic and traditional knowledge-area and transmission-focused delivered in a regimented, text-based manner which does not readily lend itself to the more...
open-ended, cross curricular style of investigations often used with environmental education (Gold & Gujar, 2007; HELP Tourism & Growing Through Education Foundation (GTEF), personal communication, September 22, 2012). To counter this, there has been a recent explicit program of ‘greening’ school textbooks to encourage increased incorporation of environmental education learning activities within schools (Ravindranath, 2007).

India is a vast and diverse country with a rich range of ecosystems and tens of millions of human inhabitants so there have been challenges in delivering a consistent rollout of environmental education to all regions. India, with its recent history of British colonization and exploitation, exhibits a huge divide between the wealthy elite and the majority, rural, subsistence poor (Guha, 2010/1999). For this majority, environmental preservation and care is not a consideration in their struggle for survival. The ‘top down’ move to incorporate environmental and sustainability education into schools is viewed by some as inappropriate for poor village schools; imposing a “full stomach” imperative (Nash as cited in Guha, 2010/1999, p465) that ignores the rights of village students and teachers to relevant education with a focus on supporting their attainment of better lifestyles; not a generic, centrally-driven education framework that is not always applicable to village life that already integrates environmental care and conservation with living (Guha, 2010/1999).

This lack of interest in school environmental education is evident in the Indian Eastern Himalayan region in the state of Sikkim, where environmental education has only a limited presence in schools (CEE, 2012; Dhar, Rawal, Airi, Bhatt, & Samant, 2002). Schools in the western Sikkim region / Eastern Himalayas, such as the school involved in this research study, like many other rural areas in India, are non-government, locally run and frequently poorly resourced in terms of teacher training, equipment, facilities and infrastructure (Cheney, Ruzzi, & Muralidharan, 2005; IGES (Asia-Pacific), 2001). Even textbooks, ‘greened’ or otherwise are in limited supply: the village school involved in this research study had only much used, British textbooks that were many decades old. The schools of the region do not always follow the national curriculum and their achievement standards are behind those expected elsewhere in India. The village leaders (governors of the schools) recognise the inadequacy of their local curriculum and accordingly have requested assistance with developing their curriculum - in all areas, not just in environmental education. In addition, some village leaders have requested assistance with developing environmental stewardship programs targeted at waste minimisation and ecotourism tours/guides as a means of sustaining their communities and providing work opportunities for the young people within the region (Growing Through Education Foundation (GTEF), personal communication, July 11, 2012). Thus there is a need identified by the village governors to develop environmental education programs around
conservation and environmental stewardship. There are, however, few local environmental education exemplars for guidance as research studies based on Indian environmental education are scarce (Almeida & Cutter-Mackenzie, 2011).

Section summary

In reviewing the position of environmental education in an Australian context and in a remote, north-eastern Indian context it was discovered that environmental education, as an educational approach, has a strong history in Australia but not in the Eastern Himalayan region of India. Indian culture however is infused with an environmental care ethos.

No matter the context or the positioning of environmental education, there is a general agreement amongst educationalists and governments of the world that elements of environmental and/or sustainability education are important in education, as demonstrated through the environmental education policies and plans of both Australia and India as described in this section of the review.

As noted in Chapter One, many advocates of environmental education posit that at the heart of environmental education is valuing nature, for without a connection made to the natural world there is no real motivation to care for it (Gruenewald, 2003a; Leopold, 1966; Orr, 2011; Sobel, 2004a). In the next section I turn to exploring this topic of connecting learning to nature and the environment

Section Three: Environmental and naturalistic learning

Rickinson, Lundholm and Hopwood (2009) have brought to prominence the specific area of learning related to the environment with their book focusing on ‘environmental learning’, arguing that this has been a neglected area in the research. In this section of the review I will consider learning and specifically learning related to experiencing the natural environment.

Learning is a complex process that has long fascinated researchers. There are numerous learning theories that have emerged from explorations into understanding learning that are beyond the scope of this study to explore in depth other than to identify that these attribute driving forces for learning to factors such as capacity (developmental or situational), interactions and incentives/motivations; covering fields of psychology, education, brain research and sociology (Illeris, 2007). Learning is a complex, very individual processing of
stimuli from a person's embodied, cognitive and affective interactions with people, place and memory in order to make meaning - it is "both a process and a product" (Falk, 2005, p. 269).

Socially constructed learning theories predominate in education (Robottom, 2006) where learners construct meanings through interactions with external and internal environments – i.e. through experiences in the physical and social worlds and engagement with existing (internal) understandings. Confirming this notion are my own observations of teacher education where the scaffolding role a teacher takes according to Vygotsky’s Social Development Theory (1978/1997) is an essential understanding and skill required of the pre-service teachers.

Environmental learning follows this trend with constructivism at its core (Meyers, 2006; Rickinson et al., 2009). Rickinson, Lundholm and Hopwood (2009) further conceptualise elements of environmental learning involving the ‘Who’, ‘What’, ‘Why’, ‘Where’ and ‘How’ of learning for the complete picture of environmental learning (p. 15). However Rickinson, Lundholm and Hopwood’s discourse on environmental learning has one glaring omission - the exclusion of outdoor-related environmental learning – they base their discourse on environmental learning purely based on classroom-based learning. A surprising omission when they define environmental learning with the use of the following quote:

“learning which accrues from an engagement with the environment or environmental ideas” (Scott and Gough, 2003; as cited in Rickinson et al., 2009, p. 11)

This exclusion of learning in the outdoors/nature in a discourse on environmental learning reinforces a common perception that ‘real’ learning is only the classroom-based, cognitive, knowledge learning (Hart, 2007; Orr, 2011; Titman, 1994); that other ways of learning and knowing, such as affective, social, personal and embodied learning, are not of value. Although Wals and Dillon (2013) argue that world changes are triggering a questioning of traditional approaches to learning and new forms of learning that are more emancipatory and socially constructed are becoming valued. Environmental learning is conceptualised by many scholars as extending beyond just learning environmental knowledge to include knowing of self, engaging in the world, and of society, (Barratt Hacking et al., 2007a; Kyburz-Graber, 2013; Malone, 2007a; Robottom et al., 2000; Wals, 2007).

Rickinson, Lundholm and Hopewood’s (2009) privileging of classroom-based examples for their discourse on environmental learning also contrasts with the traditionally view of environmental education, as discussed previously, that includes education in the environment (Gough & Sharpley, 2005; Sobel, 2004b) as a key domain of environmental education.
Incorporating the natural environment in learning activities is considered important for young people on many levels, as is explored further in this section and in Chapter Three (Theoretical Framework).

In academic and popular literature there has been an increase in interest in learning and activities connecting young people with the natural environment, see for example the work of Louv (2005; 2009) more recently and the well-known writings of Sobel (2004a, 2004b; 2008; 1996) that promote experiences in nature and local natural places. I explore this (re)emergence of a nature focus as an important component of young people’s learning and development shortly but first I will now consider what I consider their foundation - experiential educational approaches.

Experiential education, the underlying ethos of learning activities undertaken in natural environments, has its foundations in the work of John Dewey (1966). Dewey maintains that learning best occurs when the learner interrogates, through direct interaction, the material aspects of an inquiry topic or subject matter under investigation. Thus experiential education has broad applications that extend beyond environmental education. A more recent interpretation of experiential learning that alludes to the embodied nature of this approach and that resonates well with learning in natural environments is:

Experiential learning is the sense-making process of active engagement between the inner world of the person and the outer world of the environment.

(Beard & Wilson, 2006, p. 2)

Experiential educational approaches have long been embedded in my preferred teaching and learning approaches. As a science teacher and nature/place-based environmental educator, I think experiential education pedagogies are essential, a stance that obviously colours my privileging of local places environmental learning, including nature and place based learning - topics I now go on to explore.

‘Back to Nature’ Movement or ‘what’s old is new’

As described in my earlier outline of environmental education in Australia, nature-based education has always been an element of the environmental education offerings (Sauvé, 2005). A recent swing back into prominence of nature-based learning that I have observed in schools has been due to a convergence of an increase in school grounds gardening and greening programs and attention given in the popular media by the emotive push of the term ‘Nature-deficit disorder ‘popularised by author and journalist Louv (2005; 2009). Nabhan and
Trimble (1994) and Pyle (2002) previously posed concerns regarding modern lifestyle impacts on childhood experiences of nature but Louv’s writing has catalyzed a passionate response in the wider education and environment communities which has lead to the slogan ‘No child left inside’ (Louv, 2007).

Louv maintains that there is an absence of nature in the lives of today's wired generation. Going further he links the lack of connection to nature in children’s lives to some of the most worrying childhood trends: obesity, severe anxiety, attention deficit disorders and depression. The trends reported by Louv were initially taken up more strongly by the wider community than the academic community, although research in the early childhood field in related to children’s nature connectedness has increasing more recently (Munoz, 2009). Louv’s work is problematic in that it is solely based upon trends in the USA and does not acknowledge other contexts, such as the Scandinavian tradition of friluftsliv – of spending time outdoors (Henderson & Vikander, 2007), or the emerging stories around a growing culture of sustainability and nature/environment based programs in schools, such as the Australian AuSsi program referred to earlier; demonstrating that to date research into the nature-digital divide is in its infancy (Cutter-Mackenzie & Widdop Quinton, 2013). Similarly, little research has been undertaken in diverse cultural contexts about the environments that children experience (Barratt-Hacking & Barratt, 2007; Chawla, 2007; Sobel, 1996).

Louv’s rallying call to reinstate childhood experiences with nature has prompted much popularist support as exemplified by the Children & Nature Network described in Chapter One. There is some consensus related to concerns of declining environmental literacy (knowledge of natural environment elements and systems) evident in affluent minority societies (Baker, 2007; Cutter-Mackenzie, 2004; Orr, 2011). The childhood-nature experiences promoted by the popularist movement however are not necessarily a realistic picture of childhood experiences in nature, based as they are in romanticised affluent minority perceptions (Munoz, 2009). The rural childhood idyll of the nostalgically portrayed ‘Good Life’ is in fact not the case in many contemporary contexts (Government of India, 2014; Matthews, Taylor, Sherwood, Tucker, & Limb, 2000).

Contact with nature is increasingly acknowledged as promoting positive emotions and wellbeing for all ages (Hasbach & Kahn, 2013; Pryor, Carpenter, & Townsend, 2005; Ryan et al., 2010) and as supportive of healthy child development, therefore is recognised as a valuable inclusion in childhood experiences (Faber Taylor & Kuo, 2006).
Nature in the school grounds

The nearby nature of school grounds provides a ‘contact zone’ (Somerville et al., 2012) between ‘wild’ nature and built environments for children and teachers to work in, connecting children with nature through increasingly popular school gardening and ‘greening’ activities. Gardening in schools, such as the kitchen garden programs that are becoming so popular in Australian primary schools and elsewhere around the world, is actually a very old fashioned idea, as demonstrated by the 1910 Victorian State Minister of Public Instruction directive that “many teachers who do not teach agriculture as a specific subject encourage the children to grow crops and vegetables in school plots” (p. 21). Similar to the re-emergence of gardening as a popular environmental education activity in schools, other programs and activities that mediate children’s interactions with nature are finding a fresh audience, particularly with the attention being given to the benefits of nature-based learning. School grounds ‘greening’ programs have been a growing phenomenon in affluent minority world schools; often as a first step into sustainability as Henderson and Tilbury (2004) recognise in noting that one feature of a successful sustainable or eco school is a ‘greening’ of the school grounds.

The restorative and health effects of contact with nature through gardening and outdoor activities have been well documented (Bagot, 2005; Barratt Hacking, Scott, & Lee, 2010; Barratt, Scott, & Barratt Hacking, 2005; Rathunde, 2009; Townsend, 2005). Gardening programs have also been shown to address the rising problem of childhood obesity (Bell & Dyment, 2008; Canaris, 1995; Cutter-Mackenzie, 2009; Libman, 2007; Pothukuchi, 2004) and increase the amount of physical activity students are involved in on a regular basis, thus improving their health (Bell & Dyment, 2006; 2008; Pothukuchi, 2004). The restorative benefits of contact with nature through gardening and school grounds activities improve young people’s wellbeing (Chawla et al., 2014; Maller, Henderson-Wilson, & Townsend, 2009). This gestures towards associations between wellbeing and pro-environmental behaviour that Brown and Kasser (2005) have observed in adolescents and the emotional involvement Kollmuss and Agyeman (2002) argue as necessary for pro-environmental consciousness and behaviour.

It is also widely recognised both anecdotally and through research that learning in outdoor environments elevates student motivation for learning more broadly and has a positive impact on their academic performances (Dyment, 2005a; Kerby & Egana, 2001; Lieberman & Hoody, 1998; Louv, 2005). Other beneficial effects on student learning experiences in gardening and other greening programs are that student learning and skill development are enhanced through activities that are hands-on and real (Dyment, 2005a; Maller, 2005; Miller, 2007a; Miller, 2007b). As students work in the school grounds on their gardening, habitat creation or
other environmental projects they are working with their peers to achieve a mutual goal and in doing so they not only improve the biodiversity around the school, they improve their social skills as they interact with a range of people as they work on the shared projects. They establish teams, take on responsibility for decision-making and management of different aspects of their project and develop relationships with adults (teachers, parents and volunteers) as they work on projects together (Alexander, North, & Hendren, 1995; Canaris, 1995; Dyment, 2005a; Pothukuchi, 2004). With the sense of ownership and involvement students frequently experience with a growing project, comes a sense of responsibility and citizenship, particularly if the students have a sense of “empowerment” (Hungerford & Volk, 1990, p. 17); that they have an opportunity to influence their world through their project directions and outcomes. This demonstrates the connection of social and personal learning with environmental learning.

Outdoor education and outdoor learning studies have added weight to this convincing catalogue of benefits associated with learning activities based in outdoor locations such as field studies trips, school camps and outdoor recreation activities (Malone, 2008; Mannion, Fenwick, Nugent, & l’Anson, 2011; Mannion et al., 2006; Rickinson et al., 2004).

In short the benefits of ‘back to nature’ education have become increasingly more convincing in Australia and elsewhere.

*Place-based Learning*

I consider the nature-based learning described above as a subset of place-based learning that I will now explore; initially by considering some of the ideological perspectives on what is meant by place and then through illuminating how these perspectives have brought a place-based focus into increasing popularity for pedagogical and research approaches. In Chapter Three, Theoretical Framework, I delve more deeply into the psychological theories that underpin place in human psychology.

As with the nature-based learning approaches described above, place-based learning is not a new idea but one that has been gaining in popularity in recent times (Gruenewald & Smith, 2008; Smith, 2007). Place has had an increasing presence in environmental psychology over the last two decades (Devine-Wright & Clayton, 2010) and a strong history within environmental education through the ongoing work of place-based advocates such as Grunewald/Greenwood (2013; 2008; 2003a; 2003b), Sobel (2004a, 2004b), Smith (2002, 2007; 2013), Payne (1997; 2006) and Wattchow (2007, 2013).
The beauty and the terror of ‘place’ is that it is a simple, everyday term that everyone has their own unique interpretations for - we can all easily connect with what is meant by place and will have our own interpretations for places that are significant to us. The problem is that place is not a clearly defined concept (Buell, 2006) despite the apparent straightforwardness of the term. As Cresswell puts it, the concept of place is “slippery” (2004, p. 1). Place as an essential part of the human psyche is not just a location but a space that is invested with meaning by the people who connect to this place (Cresswell, 2004). Invested in the various interpretations of place as a descriptor and pedagogy are the meaning-making activities of the users of the space and the social and cultural influences they bring, as well as the other contributing elements of the material and temporal aspects of the place. So is place really a space? “The relationship between space and place remains one of the most difficult challenges facing researchers and practitioners alike.” (Wattchow, Burke, & Cutter-Mackenzie, 2008, p. 3).

Soja (1999, as cited in Cresswell, 2004) has developed a three element descriptor of place to integrate and encompass the different ‘slippery’ aspects of place:

Firstspace: The physical location that is measurable and ‘mappable’.

Secondspace: The perceived space that is subjective, even imagined - the cultural, social, even digital.

Thirdspace: The inhabited space - practiced and lived.

(adapted from Cresswell, 2004, p. 38)

All these conceptualisations of place are useful in seeking to understand adolescents’ valued places. Third space in particular (or the ‘border crossing’ or ‘contact zone’ as described in Chapter One) as a concept describing a created hybrid space where cultures collide (Rutherford, 1990), is pertinent as a concept that supplies the ‘spaces between’ symbolism that I find valuable for this study as outlined in the Prologue.

Place is a contested concept, viewed differently by geographers, anthropologists, environmental psychologists, outdoor educators, architects and environmental educators. Tangled with place is the notion of space, again with contested conceptualisations. Wattchow and Brown (2011) recognise that some hold a dualist view with space as an empty precursor to inhabited place but they prefer a more flexible continuum view of spaces and places. Massey (2005) however, finds place too limiting as a concept, instead preferring space as a dynamic inclusion of the geographical, temporal and storied. Contrastingly Wattchow and Brown (2011), Cameron (2008) and Cameron, Mulligan and Wheatley (2004) attach stories to places.
Malone (2007b) privileges the term space in an exploration of young people's engagement with physical, social, natural and learning environments, but acknowledges that conceptualisations of space are fluid and interwoven with places. Thus illustrating how the discourse collides with contested versions of place, reaffirming that place is a ‘slippery’ concept (Cresswell, 2004). In this research into the places that matter to adolescents, the socially and personally constructed aspects of places and spaces - the storied, remembered and networked – are useful considerations but place is the deliberate focus of the study anchored in the physical and natural.

The emerging popularity of place as a focus for research and practice is, in part, in response to concerns in academic and popular literature that modern lifestyles mean not only are we losing touch with nature but in fact that we are becoming ‘placeless’, experiencing nature vicariously through the wonders of modern communications and losing touch with our foundations: our local places (Cameron, 2008; Gruenewald, 2003a; Kellert, 2002; Sobel, 2004a). This is a potentially significant shift in our lives as places have been shown to be an important influence in human behaviour, development and identity (Devine-Wright & Clayton, 2010). Place identity contributes to self identity (Korpela et al., 2002; Munoz, 2009; Proshansky, 1978). Self identity that incorporates a connectedness to nature, or what Thomashow (1995) terms an ecological identity, is suggested as an important influence on pro-environmental behaviour (Stets & Biga, 2003) illuminating the importance of natural place connectedness in environmental education.

Prominent sociologist Bourdieu in his descriptions of ‘habitas’ (Webb, Schirato, & Danaher, 2002) and renowned behavioural scientist Bronfenbrenner (1979) in his ecological systems approach, both attribute personal places and spaces (physical, social and cultural environments) as important influences in a person’s development. So it no surprise that our leading ‘place scholars’ such as those listed in this review advocate for encouraging connections with local places.

Place-based education is becoming an increasingly popular descriptor and pedagogy for a wide range of educational approaches including experiential environmental education (Gough, 2009; Gruenewald, 2003a; Smith, 2007; Somerville et al., 2012). Gruenewald, writing more recently under the name Greenwood, maintains that places themselves are “pedagogical both because their contexts shape our experiences of learning and becoming” (Greenwood, 2009, p. 1).

Place-based learning uses local environments as a “text” (Gruenewald, 2003a, p. 232) where students engage in experiential learning about physical, social, cultural and temporal aspects
of their local places and the intricate connections between elements of places (Payne & Wattchow, 2008; Sanger, 1997; Sobel, 2004a; Somerville et al., 2012; Wattchow & Brown, 2011). In the process of engaging with local places, students are also engaged with embodied interactions with place – that is, the “‘moving body’ meaning-making experiences” (Payne & Cutter-Mackenzie, 2009, p. 2), which Rathunde (2009) considers as central to the discussion of place.

Places are an exciting and powerful pedagogical idea from a teacher’s perspective with inclusions of: triple bottom line sustainability; systems thinking and cross curricular integration; a focus that is developmentally, contextually and temporally appropriate for students; the incorporation of cognitive, embodied, affective and social learning elements; celebrations of diversity and local specialization; a strengths-based approach that enables students to thrive; and empowerment through critical and action-focused dimensions (Greenwood, 2008; Gruenewald, 2003a; Orr, 2005; Smith, 2013; Sobel, 2004b; Wattchow & Brown, 2011). This is a persuasive picture that resonates with many teachers, myself included. I find place-based learning very appealing, particularly fostering a strong connection and ownership with natural places created in school grounds such that I have spent many years as an educator and parent mediating the development of such special places and connections for young people. To me this makes so much sense when this resource and context for learning are right outside the classroom door.

**Learning in natural places**

The recent re/emergence of place-based learning as a significant branch of environmental education connecting people with nature and with their local places has been driven, in part, by what seems to be an elated convergence of desires to reconnect with nature, what Payne and Wattchow call a "romantic return to wild nature" (2008, p. 28). This gestures towards the increasing interest I have observed in ‘farmers markets’ and other locally-based activities that are perhaps a counterpoint to a focus on measuring resources used/saved under ESD.

Making connections with nature has been recognised as an essential element of human development (Brody, 2005; Hasbach & Kahn, 2013; Kahn & Kellert, 2002), as “a sense of place is a fundamental human need” (Park, 2003; as cited in Wattchow et al., 2008). As humans we have a natural affinity and curiosity with non-human nature. Wilson (as cited in Orr, 2004) called this phenomenon *biophilia*, a term that has been used by many to describe this human affinity with nature across cultures (Kahn, 1997). In the *Tbilisi Communiqué: Educate Today for a Sustainable Future* (UNESCO & UNEP, 2012) the connectedness to nature and the wisdom of indigenous cultures engendering a sense of place was acknowledged. Linzmayer and Halpenny
(2013) contest an innate connectedness to nature, maintaining instead that relationships with nature are mediated through social relationships. Brody (2005) in his learning in nature theory recognises social dimensions as part of the complex learning in nature process, echoing the conceptualisation of an intermeshing of the social and ecological in environmental learning as discussed earlier in this chapter.

There is a large body of work about the significant life experiences that influence formation of environmental connectedness and pro-environmental behaviours that indicate a key factor in nature connectedness is positive childhood experiences in nature often mediated by an adult guide (see for example Chawla, 2002a, 2007; Palmer & Suggate, 1996; Palmer, Suggate, Robottom, & Hart, 1999; Wells & Lekies, 2006). Families in particular are the social conduit to an environmental ethos (Francis, Paige, & Lloyd, 2013; Payne, 2010; Robottom et al., 2000). Indigenous ways of knowing nature and place, which connect with place education, are fundamentally social (Cameron et al., 2004; Cameron & San Roque, 2003; Wheaton, 2000; Yunkaporta & Kirby, 2001). Place as a relational construct must necessarily include consideration of others that inhabit place, reinforcing the need for inclusion of social dimensions into place-based learning. There is an increasing interest in social learning methodologies in environmental and sustainability education (Brown & Harris, 2014; Wals, 2007; Wattchow et al., 2014) recognising the intersect of our social and ecological systems and indicating that the use of place as an organising principle for learning encompasses socioecological learning.

There are also cautionary notes and disputed definitions regarding place-based learning. Interestingly, Sobel and Smith (2010) recently moved to using the terminology ‘place- and community- based education’ to highlight the inclusion of the cultural and social elements of place, while Wattchow and Brown (2011) and Cameron (2008) use the term ‘place-responsive’ education as a descriptor. Criticisms of place-based learning have been that it cannot be truly in the critical tradition within developed world ideologies (Bowers, 2008) and that local places are too narrow and do not embrace global connections – criticisms that can be countered depending on interpretations, such as place functioning as a link between local and global (Gruenewald & Smith, 2008; Somerville, Power, & de Carteret, 2009). Such criticisms demonstrate that the ‘slipperiness’ of place conceptualising extends to the defining of place pedagogies - the key is, no matter what terminology is used, it is the inclusion of the local; a point argued by Richard Kahn, who does not even use place in his discourse but calls his preferred pedagogical approach ‘ecopedagogy’ (Kahn, 2010).
One concern about place-based education that is significant to this study is Peter Kahn’s (2002) identification of what he postulates as a serious, looming problem; what he terms environmental generational amnesia, which provokes speculation on our society’s increasing privileging of ‘tame’ nature experiences for our children as opposed to ‘wild’ nature experiences. Kahn explains his environmental generational amnesia as the cumulative effect of each successive generation having more and more degraded places as their baseline standard for a normal environment. This effect may be extended by an increasing sanitising of our children’s contact with nature as noted by Malone (2007a). This creeping disconnect from ‘real’ nature does not seem to be an isolated case. Zaradic and Pergams (2008; 2007) have written about concerns that extended family holidays and tourist visits to national parks in the USA have declined dramatically in the last decade. This made me realise that my personal description of nature-based experiences encompasses the full spectrum from the tamer or ‘soft nature’ experiences such as gardening with young people, through to activities in pristine wilderness. My rationale being that any and all interactions with nature as part of a young person’s learning and development are beneficial but if only ‘soft’ nature experiences are possible, this is better than nothing. So I started to question: Are all nature-based experiences equal? Are my views on what constitutes nature and nature-based experiences shared?

Again the theme of differing slants on terminology, jargon and definitions has arisen which segues into turning attention back to environmental learning, specifically the environmental learning nomenclature. In the literature numerous related and alternative terms have been used that caused me to reflect on what really is the environmental learning that I am focusing on in this study. This was prompted by such terms as formal, informal, contextual and situational learning, outdoor education, ‘learning in nature’ (Brody, 2005), ‘natural / non-natural learning’ (Orion as cited in Eilam & Trop, 2011), ‘direct, indirect and symbolic experiences with nature’ (Kellert, 2002), ‘outdoor learning’ (Rickinson et al., 2004) and ‘Learning outside the classroom (LOtC)’ (Malone, 2008). In Rickinson, Lundholm and Hopwood’s (2009) touchstone book, Environmental Learning, they predominantly drew upon findings from classroom based situations which differs from the focus of this study about adolescents’ local places, starting from my observed lack secondary student engagement with school grounds and local places environmental studies learning activities. Upon reflection, this

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6 This connects to my definition of nature used in this study and articulated in Chapter One as any green, blue, white nature-rich setting, acknowledging that by the act of naming my definition of nature used in this study I am creating boundaries and thereby divisions as Gough (2009) with the hope that my definition is broadly encompassing of adolescents’ nature experiences.
study specifically focuses on the environmental learning in the context of local place-based outdoor learning.

It is therefore pertinent to briefly consider the special situation of place that is the school grounds. The school grounds are not often used by teachers for learning (Dyment, 2005b) and use of the school grounds and neighbourhood green spaces for teaching and learning that does happen in the outdoors happens mainly in primary schools – for my focus, secondary schools, the school grounds are rarely used for environmental learning (Puk & Makin, 2006; Rickinson, 2004). This is despite the natural environment being identified as facilitating learning for all ages (Jaruszewicz, 1994; Nabhan & Trimble, 1994; Wattchow & Brown, 2011). Furthermore the concerns about young people’s access to experience in nature declining with modern lifestyles, as discussed previously, mean it makes so much sense to me to make use of the school grounds as a place of “nearby nature” (Kaplan & Kaplan, 1995), as a time- and cost-effective resource for teaching and learning. Additionally, engaging in greening and/or nature related studies in the school grounds or neighbourhood provides an opportunity for engaging, sustained learning activities, promoting robust environmental learning (Falk, 2005). Not a new or original notion; Sobel (with Dubel in Gruenewald & Smith, 2008; Sobel, 2008) has long been promoting the school grounds and local natural settings as place-based learning sites just on the classroom doorstep. It seems that little is understood about this special case of local and school grounds based outdoor learning and more research is needed in this area (Rickinson et al., 2004).

Section summary

This section of the review, focused on environmental and naturalistic learning, has explored what is meant by environmental learning and has revealed nature-based and place-based learning, and the specific example of school grounds learning, as pedagogical approaches for mediating environmental learning. Such that the environmental learning focus of this research study has been clarified to be that of environmental learning in the context of local place-based outdoor learning.

Now that I have identified, explored and clarified the environmental and naturalistic learning that forms the basis of this study, I turn to consider the key actors in the study – adolescents - in the context of learning and environmental learning.
Section Four: Adolescence in the context of environmental education

Adolescence is characterised as a life stage when teenagers, although still strongly dependent on and influenced by family, are broadening their horizons physically, cognitively, emotionally and socially, changing from a child to an adult (Berger, 1983). They expand further what Bronfenbrenner (1979, 1993) calls the ‘Microsystem’ – the immediate level of influence of family, peers, school, etc. At this life stage young people become more focused on becoming social and sexual beings and establishing connections between themselves and society (Moen, Elder, & Luscher, 2001; Sobel, 2004a) and in establishing who they are as a person (Gullotta, Adams, & Markstrom, 2000). They are often characterised as risk-takers as they experiment with ‘trying out’ different ideas and roles (some confrontationally) in the process of piecing together their identity (R & S Kaplan and Thomashow in Kahn & Kellert, 2002). Growing their autonomy by increasing their independent, self management and decision making skills is another aspect of adolescence (Eccles et al., 1993).

Adolescence as a life stage will be explored in Chapter Three – Theoretical Framework. To contextualise adolescents in relation to schooling and environmental education, there is recognition that adolescents have different needs, drives and interests to children or adults and this is reflected in their engagement with schooling and with the environment as will be explored in the following.

Adolescents and Schooling

In juxtaposing adolescence with schooling there is often disconnect - as adolescents developmentally need to have opportunities for trialling and exercising their growing personal skills, often the reality they experience is that opportunities at school for choice, development of identify and decision-making tend to decrease with the transition into secondary school (Eccles et al., 1993; Fusco, 2001). This is due to factors such as secondary schools being more rigidly structured organisations and with the concentration on learning that builds towards the final year exit testing this creates “an environment of failure, not an environment of success” (Gullotta et al., 2000, p. 234). School imperatives driven by standardisation and external testing focus, on what Bernstein terms ‘vertical’ or high status, expert knowledge, seldom recognise the everyday, lived or ‘horizontal’ knowledge young people possess (1999). Lotz-

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7 I use the term schooling here to clearly define the scope of this discussion to education within a school setting, even though the terms education and schooling are frequently used interchangeably. As noted by Gruenewald, schooling is a subset of the broader education field (in Gruenewald & Smith, 2008).
Sisitka (2009) argues this under privileging of lived, everyday knowledge also contributes to the tension between environmental education and institutionalised schooling – environmental education is also not an exact fit for the schooling system, analogous to adolescents.

Secondary schools in particular still seem to be situated in what Freire termed the ‘banking’ model of education (as cited in Orr, 2004, p. xi), where knowledge is distributed to the students to add to their knowledge ‘bank’. Much of secondary schooling is described as “disembodied” Rathunde (2009, p. 70) and not connected to students’ lived experiences. Instead the focus is on developing the prescribed knowledge required for standardised assessment (Smith, 2002), primarily without the inclusion of embodied processes complementing cognitive processes, meaning learning becomes “diminished” (Rathunde, 2009, p. 71).

Adolescent priorities, in the main, do not mesh with secondary school structures. As adolescents trial different ways of being in their quest for a developing identity, and preference social interactions with peers rather than engaging with predominantly content-driven curricula, they conflict with school expectations. With many secondary schools still located in the one-size-fits-all ‘factory’ or ‘banking’ approach to schooling, adolescents have limited access to authentic opportunities to develop the independence and autonomy necessary for their development and wellbeing (de Winter, Baerveldt, & Kooistra, 1999).

Secondary school culture does seem to be slowly changing however as the world is changing under the influence of the ‘information age’ but there is a still a strong connection to a competitive academic culture (Groundwater-Smith, Brennan, McFadden, & Mitchell, 2001). Worldwide prominent educational thinkers have been calling for a remaking of school culture for some time. For example the charismatic Sir Ken Robinson’s TED talk on the need for a paradigm shift in education has had over 20 million views since the first posting in 2006 (Robinson, 2013).

In Victoria, where two of the schools in this study are located, following the recommendations of the Middle Years Research and Development (MYRAD) project (Victorian Department of Education and Training, 2002), secondary schools are having to transform from traditional discipline-based education to education that equips students to “meet the challenges of life in a complex, information-rich and constantly changing world” (Victorian Curriculum and Assessment Authority, 2003).

The information and communications revolution has become a focus for changes in culture and pedagogy in schools (Heppell, 2007). In schools in Victoria there has been a rapid adoption
of information and communication technology (ICT) in education: ICT is an interdisciplinary learning domain under the Victorian curriculum and standards framework (to be aligned with the Australian Curriculum in 2014/2015) and teachers are supported with tools and training to incorporate ICT into their classrooms (Victorian Department of Education and Early Childhood Development, 2012). In the remote Eastern Himalayan region of India, where the other school of this study is located, schools rarely have any computers unless a charitable organisation supports them with donations. Internet access is not available unless through a satellite connector, again only available to most of these remote schools through the generosity of a charity.

School education is experiencing a steady push to align with modernity, changing from the industrialised version experienced over 100 years ago with shifts in ideas and priorities of the time, as exemplified with the changes in adoption of ICT (Groundwater-Smith et al., 2001; Harpaz, 2005; Hart, 2007; Taylor & Parsons, 2011). However many educationalists think that a revolution or real paradigm shift, rather than a gradual evolution, is needed; that evolution of the system is not enough. Leading this call for significant change in the way education and schooling happens are a number of prominent environmental and sustainability education philosophers who nominate an environmental/sustainability focus as the vehicle to re-frame education (Kahn, 2010; Orr, 2004; Sterling, 1993, 2001). Repeatedly a call for learning from real life and real places is sounded for a learning focus (Fusco, 2001; Orr, 1991; 2005; Rickinson & Sanders, 2005; Sobel, 2008; Wattchow & Brown, 2011). Interestingly the first Tbilisi Declaration postulated that environmental education could be a vehicle for the “renovation of the educational process” (UNESCO, 1977, p. 24).

This call for making schooling for adolescents real and authentic echoes throughout the literature on engagement (see for example Butler, 2005; Groundwater-Smith, Mitchell, & Mockler, 2007). The trouble is the clear message secondary schooling generally sends to students is that the serious work of schooling happens in the classroom, that the outdoors is dismissed as not relevant for learning and is only suitable for relaxation, sporting or yearly adventure camps pursuits. No wonder students become disengaged when the means of meeting their needs for authentic, hands-on learning - the rich resources of the local environment – is ignored (Nabhan & Trimble, 1994; Orr, 2005; Sobel, 2008; Wattchow & Brown, 2011).

In short, once students reach secondary school, they experience very little locally based outdoor environmental learning or any sort of environmental education (Dyment, 2005b; Loughland, Reid, Walker, & Petocz, 2003; Mannion et al., 2006; Rickinson, 2001, 2004).
I have noticed that younger students (in the early years and primary settings) interact in unstructured, direct ways with the physical surroundings of the school grounds much more than secondary students. Secondary students’ place-based interactions with their school grounds seem to be mainly mediated by physical education or sports. When visiting schools, it is the younger students that have leaf races down the decorative stream in the courtyard and make up petal and gumnut games. The secondary students I observe mainly use the school grounds as a site for getting together in social groups, no longer engaging with the physical environment as when they were children. Is this engagement with the natural environment a reflection of the privileging of the indoors in schooling or are they now at a stage where the natural environment is no longer important to them?

Studies of adolescents’ preferences for natural environments suggest that they have a lower level of preference compared to children and adults, instead they preference places where they can be active and interact with peers (Hart, 1979; Kaplan & Kaplan, 1995, 2002). Adolescents have been found to have a less ‘biocentric’ view of nature than primary-aged students (Loughland, Reid, & Petocz, 2002; Loughland et al., 2003; Pointon, 2013); instead they position themselves as the central figure in relation to nature.

This is not to characterise adolescents as uncaring about the environment as Kaplan and Kaplan (2002) caution. Extensive studies of secondary students in the Asia pacific region by Fien, Teh-Cheong Poh Ai, Yencken, Sykes and Treagust (2002) discovered students rank caring for the environment as a high priority and indicating they would like to have more opportunity for environmental education as part of their schooling. Similarly studies by Uzzell (1999) and Connell et al. (1999) demonstrate that adolescents are concerned about environmental issues but tend not to see these as connected to their lives and something that they cannot really address. Adolescents do value nature as a place to retreat to for restoration, important for their wellbeing, and as a setting for recreational activities and socialising (Abbott-Chapman & Robertson, 2009; Bingley & Milligan, 2004; Chawla et al., 2014; Korpela et al., 2001; Owens & McKinnon, 2009). Overall it seems that, although they value nature, at this time of their lives, through lack of opportunity and/or due to their developmental needs (as will be discussed further in Chapter Three - Theoretical Framework), adolescents are more focused on

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8 This is a term Kahn uses in his writing to describe a view of the environment as valuable in its own right, independently of connections with humans, with humans as part of the natural relationships. His opposing term is anthropocentric where the environment is viewed as there to provide for the needs of humans, humans are central.
establishing who they are as a person and connecting and interacting with peers, than connecting with and caring for nature.

This pattern of self-focused behaviour could point to the cause of secondary students’ lack of engagement with the local natural environment, or could this be because environmental education opportunities are missing or what is available is designed around what teachers think their students need (Hart, 2002a), not necessarily what students’ perceive as useful and important?

Implementing environmental education programs in secondary schools is particularly challenging due to the restrictive structure of the secondary curriculum with its divisions into subjects and limited opportunities for cross-curricular environmental topics and/or flexible time spent interacting with the physical environment. Secondary school syllabi are invariably driven by the imperative to prepare students for final year external assessment and university entrance requirements (Rathunde, 2009; Rickinson, 2004; Smith, 2004) and environmental education is an under-practiced learning area (Chillman, 2003; Malone, 2008; Rickinson et al., 2004; Rickinson & Sanders, 2005).

There are, however, a number of case studies in the literature of adolescents enthusiastically engaging in environmental education projects (often based in the local community) where conditions fulfil adolescents’ preferences of being active, socially engaged and working on authentic projects (Thomashow in Kahn & Kellert, 2002; Uzzell, 1999); i.e. projects that are “meaningful and satisfying” (R & S Kaplan in Kahn & Kellert, 2002, p. 252). In projects where the students genuinely participate in the planning, decision-making, implementation and maintenance of the project and not just the usual token activities of planting or beautifying, then this has the potential to transform their learning, not just regarding project-related topics but also learning about themselves (Lekies & Sheavly, 2007; Rickinson, 2004).

Wals (1994) has demonstrated that it is essential for environmental education with adolescents to be built around their “perceptions and experiences of nature” (p. 1), a guideline supported by Kaplan and Kaplan (2002) and Loughland et al. (2002). This links well with the call from Rickinson et al. (2009) for researchers and practitioners to turn their attention to students’ perspectives regarding environmental learning, to guide them in the educational processes.

Perhaps in the rush to cover the ‘crowded curriculum’ with the tendency to focus on assessment and working towards prescribed standards and school exit metrics, ‘hurrying’ our young people along through life (Elkind, 2001), we have forgotten as teachers that even big
kids need to be restored and recharged by just being in a natural environment and enjoy connecting with it. Unfortunately time to ‘play’ in our environment disappears as the students get older (Preston, 2014). Perhaps this is part of the reason for secondary school aged students not engaging in formal environmental education as I have observed - we need to remember every now and again to allow the students to ‘stop and smell the roses’, experiencing ‘slow’ pedagogies (Payne, 2003; Payne & Wattchow, 2008) in their busy secondary schools lives pushing towards those exit year testing scores. Instead is adolescence a time where young people are just a mass of seething hormones and having a ‘time out’ from relating to their physical environment (Kaplan & Kaplan, 2002; Nabhan & Trimble, 1994)? Adolescence is examined further in Chapter Three to consider the unique situation of this lifestage. The problem is very little is known about what environmental learning students perceive as valuable, add this to the lack research in the secondary education sector, which all points to a clear call for the need to hear from the ‘student voice’ in this situation (Rickinson et al., 2009). That is, there is a need to find out how adolescents perceive and connect to their local environments in order to best facilitate engaging them in local place-based environmental learning.

Section summary

This section of the review reveals that the needs of adolescents do not necessarily match with their experiences of schooling. Similarly this exploration of adolescents in the context of environmental education has shown that school-based environmental education seems not to be relevant to adolescents, although they do recognise the environment/nature as important. Impacting on the disconnect between adolescents and environmental education at school revealed in this section is that there are absences and silences in what is known about secondary school students’ environmental education experiences.

In the following section I turn to exploring the significant role a sense of belonging and connectedness plays in adolescents’ lives, of which connection to school and other local places is a part.

Section Five: Adolescents and belonging

Connectedness or belonging is a 'big picture' topic related to young people’s development, health and wellbeing, schooling, and relationships to place and nature. The issue of connectedness links the focal areas of this research study being secondary school
environmental education and local place-based learning with the actors in this study, adolescents.

Establishing social competence and coherence are key developmental tasks of adolescents as they shift towards establishing themselves as adults (Berzonsky & Adams, 2003; Brown et al., 2002; Hall, Coffey, & Williamson, 1999; Matteson, 2012). As indicated, adolescence as a lifestage as a theoretical underpinning of this research will be considered in detail in Chapter Three. The issue of adolescents and belonging will be used in this chapter section as a lens to review lived expressions of belonging in young people’s lives – past adolescence place studies, school bonding influences, digital connectedness and where adolescents belong within this research activities of this study.

Previous places of adolescent belonging

Reports of place studies with young people are scarce in the literature; studies with younger children predominate (Abbott-Chapman & Robertson, 2009). Belonging is a key theme in the past adolescent place studies evidencing young people’s sense of connectedness to important places in their lives. This sense of place connectedness is integral with the focus on favourite places used in many of the studies (and also in this research), as favourite places provide a window into place and self identity development (Korpela & Hartig, 1996).

A sense of belonging is important for young people’s healthy development and wellbeing (Waters, Cross, & Runions, 2009). Positive emotions promote wellbeing (Seligman, 2011). It follows then that places young people feel connected to, that elicit positive emotions, such as the adolescents’ school grounds in Chawala et al.’s recent study (2014), support young people’s wellbeing. Adolescents’ valued places, particularly home and nature, have been found to be restorative with young people seeking such places to self regulate their emotions (see the body of work by Korpela and colleagues), again supporting their wellbeing. The restorative value of time in nature for all age groups is well documented (see for example Kaplan & Kaplan, 1995; Maller et al., 2009; Pryor et al., 2005), including attention renewal and restoration benefits for young people, as noted previously in this chapter. Nature restoration and impacts on young people’s wellbeing and development underpins the emerging childhood-nature connectedness discourse outlined earlier in this review. Wals in 1994 investigated Detroit adolescents’ valued natural places, identifying that the restorative benefits of nearby nature were appreciated by the young people but their valued natural places were predominantly preferred for affording them entertainment.
Other adolescent place studies have investigated a broader spectrum of places that are important to teenagers. Sommer (1990) provided insights to the valued places of adolescents in Estonia, identifying that home and nature were their most preferred. Owens has been exploring valued ‘teen places’ over many years commencing with a 1988 study of Californian teenagers’ preferred outdoor places where she discovered that natural settings were the most preferred of their outdoor locations and that outdoor places were most valued for gathering with friends. Then in 1994 Owens examined places teenagers valued in Sunshine, a suburb of Melbourne in Australia, and incorporated comparisons to the Growing up in Cities (Lynch, 1977) study of the area 20 years prior to this. The Sunshine teenagers in 1994 preferred sporting, recreational and home places, and again the most valued outdoor place interaction was to socialise with friends. In a neighbouring Melbourne suburb, Malone and Hasluck in Chawla’s (2002b) later compilation of case studies about children growing up in cities for UNESCO reinforced the value teenagers in Melbourne’s western suburbs placed on home, socialising and sporting locations. In 2009 in partnership with McKinnon, Owens again focused on the role of Californian teenagers’ valued outdoor places, identifying that the young people preferred nature and other outdoor venues for being active and with friends aligned with their developmental needs. Korpela has also been a prominent voice in adolescent (and adult) place studies with a particular focus on restorative environments and places used for emotional self-regulation by people in Finland. In his 2001 study with colleagues Hartig, Kaiser and Fuhrer, older adolescents and young adults favoured natural and residential places for restoration. In 2002 Korpela with colleagues KyttÄ and Hartig identified that the favourite places of older children and young adolescents were sporting and residential places, with socialising as the key interaction associated with their places. Most recently Korpela et al. (2014) confirmed that Finnish teenagers and adults use nature for restorative and wellbeing benefits. More recently Abbott-Chapman and Robertson (2009) explored the favourite places of adolescents living in the island state of Australia, Tasmania, identifying that firstly home places and then nature were most valued, with place interactions of socialising and fun with friends most preferred.

Other adolescent place studies tend to focus on just particular zones of place connectedness such as the teenage bedroom (Bloustien, 2000; Hodkinson & Lincoln, 2008) and young people’s activities within their neighbourhoods or online social spaces (Hall et al., 1999; Morrow, 2007; Pawson et al., 2007) that inform the research into adolescents’ valued places.

Adolescent place studies in less-privileged majority contexts are rare in the literature. Chawla’s (2002b) collection of case studies referred to earlier does however incorporate important urban places for adolescents as well as children in lower socioeconomic areas in both minority
and majority cities. The places of significance in the urban environments of these young people were predominantly those that were culturally and socially supportive (Chawla, 2002b).

The past adolescent place studies have identified that adolescents in predominantly affluent minority contexts, value their homes, places to gather with friends and natural places; and the adolescents’ reasons for valuing places are generally associated with being active, having fun and socialising balanced with places (usually home and nature) that are restorative and provide comfort and a sense of belonging. Ryan and Deci propose that connectedness through strong supportive relationships is a basic human need (2001, 2008) consistent with adolescents’ valuing of their home places as a strong theme from past adolescent place research. Thus places valued by adolescents in the past are places, both natural and built, that support their developmental needs and have a salutogenic impact.

**School and belonging**

School, as adolescents’ primary place of engagement with the world after their home place is a key focus for connectedness and belonging such that there is a large body of work related to student connectedness/bonding/engagement with school (Blum, 2005).

If a student feels connected to their school this promotes wide-ranging benefits: with enhanced school connectedness students are less likely to participate in risky behaviours; they are more likely to engage with their schooling and have positive academic outcomes; and their physical, social, emotional and mental health and development is better with a sense of connection and belonging (Blum, 2005; Catalano, Oesterle, Fleming, & Hawkins, 2004; de Winter et al., 1999; Libbey, 2004; Waters et al., 2009). In the complex and dynamic interaction of the many factors thought to affect student school connectedness there are not any direct causal links evident between the school setting and a students’ feeling of connectedness, although Waters, Cross and Runions (2009) have proposed a useful explanatory model around clusters of factors – they cite Maslow’s 1968 seminal work on physiological and psychological needs and Moos’ 1979 influential work on school social ecology as informing their model. The model encompasses sets of influences; namely, school organisational structures, interpersonal interactions, school ethos and functioning, the physical school setting, and the interactions between these elements as contributing factors to student connectedness to school (Waters et al., 2009). Thus students’ feelings of connectedness and belonging to their school have long been identified as an important issue in the health and wellbeing area. However the link to the role the school grounds plays in student connectedness is not as clear.
In school connectedness literature the school buildings, not the school grounds, dominate the discussions around contributing school setting factors (although this is in fact often seen only as a minor influence after the key player of interpersonal interactions), such that the school grounds appears absent from the discourse (Libbey, 2004; Waters et al., 2009). In the discourse around the psychology aspects of developing a sense of place (which is detailed in Chapter Three – Theoretical framework), links to student school connected benefits are rare, raising the question: Do students feel a sense of connectedness to their school grounds? This is a key focus of this study.

_Digital connectedness_

Adding another layer onto this research study’s exploration of secondary students’ connection to their special places in the school grounds and local environs is the recent explosion of possibilities for young people’s connection to virtual places/spaces. Virtual spaces have been identified as enabling extensions of the social interactions with peers necessary for development (Pawson et al., 2007). More and more adolescents’ lives are anchored in technological spaces and devices; modern communication technologies have changed the way young people interact and live their lives (Bulfin, 2007; Johnson, 2009; Prensky, 2001). Keeping in constant contact with close friends regarding the news and activities of their larger “Electronic Tribe” (Bhindi & Hough, 2006, p. 3) is second nature to adolescents (Bulfin & North, 2007). Adolescents’ social identity, particularly in affluent minority worlds, now seems to be partially linked to digital spaces, not just physical places as it was for their parents (Hulme & Truch, 2004). Recent, large-scale surveys of teenagers in both Australia and USA demonstrate how embedded digital social networking is in the lives of modern young people in affluent countries. The ‘infographic’ shown in Figure 2.1 was produced from findings of a USA survey of 1,030 13 - 17 year olds in 2012 asking about how they view their digital lives and Table 2.2 shows the findings of a similarly focused survey of social media practices of 1511 Australian 8 - 17 year olds (with 907 of these being 12 to 17 year olds) about their online interactions.
Figure 2.1: Social Media, Social Life: How teens view their digital lives (Rideout, 2012).

Table 2.2: LIKE, POST, SHARE: YOUNG AUSTRALIANS’ EXPERIENCE OF SOCIAL MEDIA (Australian Communications and Media Authority (ACMA), 2013)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Used social networking in previous 4 weeks</th>
<th>Daily use of social networking reported</th>
<th>Their preferred social networking site</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 – 11 year olds</td>
<td>45%</td>
<td>-</td>
<td>YouTube</td>
</tr>
<tr>
<td>12-13 year olds</td>
<td>69%</td>
<td>36%</td>
<td>Facebook</td>
</tr>
<tr>
<td>14-15 years olds</td>
<td>86%</td>
<td>62%</td>
<td>Facebook</td>
</tr>
<tr>
<td>16-17 year olds</td>
<td>92%</td>
<td>71%</td>
<td>Facebook</td>
</tr>
</tbody>
</table>

These recent statistics of adolescents’ online practices shown in Table 2.2 and Figure 2.1 suggest that in modern young people’s lives there is a significant connection with social media spaces that mediate their engagement with some aspects of the world. The Australian Bureau of Statistics recently reported that, on average, young Australians aged 5 – 17 years spend 2.25 hours a day on screen-based activities (2013). There has been much public attention given to the negative impacts of young people’s online interactions, although there is some indication of positive psychosocial benefits from supportive online social interactions, although there is
widespread agreement on protective approaches and use guidelines, including the removal of communication devices from teenagers’ bedrooms (Straker, Abbott, Collins, & Campbell, 2014).

As described earlier, there has been a general impetus towards using modern communication technologies to engage adolescents in their schooling, such that the introduction of information and communication technology (ICT) infrastructure and pedagogical approaches to engage adolescents has come into prominence in schools to connect with these ‘digital natives’ (Prensky, 2006) on their preferred turf (Bulfin & Koutsogiannis, 2012; Dowden, 2007; Independent Schools Queensland, 2008; Payne, 2003).

There are many that sound a cautionary note about the full scale embracing of digital pedagogies. According to Rathunde (2009) and Payne (2003) the pervasiveness of technology-based learning is an example of the marginalising of embodied experiential learning. I have observed a recent change in culture within teaching in Victoria to unquestioned acceptance and privileging of technology-based learning, and a tension created when teachers are scrambling to master the latest ‘app’ to use and to competently engage in these digital landscapes with their students, sometimes at the cost of other pedagogical approaches such as experiential learning.

As teachers of adolescents are being encouraged to engage their students in these virtual meeting spaces, of Facebook, Instagram, blogs, wikis, Flickr, etc., does this even further remove the surrounding environment from the spaces that are used to engage secondary school students? Or can environmental educators look for intersections in cultural spaces, the third space – a place of action and interaction as described earlier in the discussion of place (Cresswell, 2004; Rutherford, 1990) – to engage students through both digital and physical place-based spaces? The digital worlds young people engage in now seem firmly entrenched into modern lifestyles and cannot be ignored so I view this as another possible parameter of place interest for this study.

As observed by Bulfin and North (2007), by employing digital spaces, there is an opportunity to engage in learning that is no longer bounded by location and time. I am drawn to using the third space with student researchers, to take the place of engagement about their perceptions of place and environmental learning into the digital spaces they inhabit. To this end, one of the methods in this study as described in Chapter Four - Methodological Approach is the use of a private Facebook site as a research tool. This is both a means of keeping students connected with the study and to truly enable them to have their own ‘voice’ in a familiar space and to allow ‘space’ for thoughtful reflection and discussion.
Beard and Wilson (2006) maintain that learning is more effective when there is a conducive learning environment as part of the learning experience. They note that contemporary education ‘speak’ has seen a transition in terms from classrooms to ‘learning spaces’ indicating a more flexible and encompassing view in education of what places and spaces (physical and virtual, indoor and outdoor, formal and informal) constitute suitable environments for learning. This gestures towards consideration of suitable spaces for researching with students. It is my contention that it is an effective research strategy to use the digital spaces the student regularly inhabit (Facebook in this research) to gain an insight to their lived experiences. In this study, accessing the places and spaces adolescents connect to, learn in and value, in order to explore the environmental learning associated with these places/spaces makes sense. This also allows exploration of young people’s perspectives regarding any changing notions around the idea of learning spaces – are these expanding beyond just the classroom? Are the impacts of physical place interactions on learning and development as relevant to young people of today as they were to previous generations?

The impact of ICT mediated learning and place/space interaction is only a consideration in affluent minority settings for research, as the digital divide evident in rural poor contexts, such as the school located in remote north-eastern India in this study, excludes the young people of these locations from the benefits of ICT (UNICEF, 2011).

**Adolescents connectedness to this research**

Understandings of environmental learning such as place-based learning and place connectedness are an underrepresented but emerging area of research (Rickinson et al., 2009). This may be, in part, because substantiating intangible qualities such place connectedness or learning transformations is more difficult than changes to the physical environment of schools (Henderson & Tilbury, 2004). With the rise to prominence of ESD in environmental education over the last 20 years, there has tended to be a focus not on environmental learning but on collecting outcomes-based data – quantifying resource savings, biodiversity improvements, and changes in program participants’ knowledge, attitudes and degree of engagement in environmental actions. This is regularly linked to fulfilling program funding requirements and the metrics are relatively easily quantified. Quantifying some of the more intangible environmental learnings related to what a person values however is more difficult (Jickling, 2001). Part of the issue, as noted earlier, is that there is limited research into environmental learning from the learner’s perspective, that is, the ‘student voice’ is missing from the discourse (Rickinson et al., 2009).
So it makes sense to co-opt the expert ‘insiders’ of a school and to ask adolescents what places/spaces they value as part of their everyday lives, including their schooling, and how they connect with these places. Therefore this study is founded on exploring young people’s perspectives by aligning with the ‘researching with children’ or ‘child-framed’ methodological movement (Barratt Hacking et al., 2013). This research movement is founded on the premise that children are active participants in their communities, and as such have the right to contribute their thoughts to research in which they might be involved (Woodhead & Faulkner, 2008). Employing this methodology (as detailed in Chapter Four – Methodological Approach) gives the adolescent participants ownership and connectedness to the research study.

**Section summary**

This section of the review illuminated that a sense of connectedness and belonging are key influences in adolescents’ lives impacting on a young people’s development, academic, health and wellbeing outcomes. This sense of connectedness in turn is influenced by factors including the environs students interact with which increasingly includes virtual spaces. Past adolescent place research was explored demonstrating young people’s connectedness to home, nature and places for social interaction. The case was made that exploring students’ connectedness to their everyday places and spaces through a participatory research methodology in this study connects the research students into the study as expert insiders, validating their perceptions and adding the much needed ‘student voice’ to the ongoing emergence of place practices and pedagogy in the research literature.

**Chapter conclusion**

This chapter gives an overview of the existing concepts, research and approaches within the environmental education field with a specific focus on the environmental learning of adolescents in the context of their local outdoor places. This overview is interwoven with the personal narrative and reflections of the author, an experienced environmental educator and secondary teacher who has observed a decline in school grounds place-based education from primary to secondary schooling. As such this review illuminates relevant findings in the academic literature to present the rationale for this research study into places that matter to adolescents and how they connect and engage with these places.

To position this study within the place-based learning sector as part of the field of environmental education, initially this review enumerates the history of the evolution and
development of environmental education as a field through key worldwide initiatives. The changes in definitions, perceptions and critical analysis of environmental education with the advent of the concept of sustainability have been explored to justify the use of the term environmental education for this study as a broad encompassing field. The contexts of the study, environmental education in Australia and remote rural India, were then explored.

The review then turned to focus on environmental learning, defining this as an emerging research area and one where the perceptions of the learners are underrepresented. The specific area of environmental learning in the context of nature and place-based education was considered, identifying the focus on nature, place and environmental learning as a reinvigorated, often contested but popular, emerging area of environmental education. The foregrounding of place - the material, cultural/social and lived places and spaces and the pedagogies of place are at the core of place-based learning. Thus place-based education is an increasingly popular descriptor and pedagogy for a wide range of educational approaches connecting to ‘places’, including the focus of this study – the local outdoor places that adolescents value.

The developmental stage of adolescence is the target of this study so this overview went on to examine the needs of adolescents and how these relate to schooling, their connections and engagement with the natural environment, and the changing landscape of their educational environment, particularly the influence of communication technologies. The impact of digital spaces on modern lifestyles and teaching was considered in recognition of this recent change in the developmental and learning environment of young people that needs to be considered when researching the places that matter to adolescents.

Connectedness as a concept that links areas of interest in this study of place, schooling, young people’s health and wellbeing, participative and enabling approaches, and the emerging field of young people’s engagement with virtual spaces, was explored in the final section of the review. Past adolescent place studies revealed young people’s connectedness to home and nature in previous generations in affluent minority contexts. As a cross-discipline concept connectedness brings in aspects of health promotion, environmental psychology, education and environmental education to this study, positioning it in areas of research that are emerging or needed. Specifically the gaps and silences in the literature as described in this chapter are around learners’ perceptions of environmental learning, secondary environmental education, school grounds and local natural places for outdoor learning, qualities of outdoor places that adolescents value, and the embryonic area of the nature-digital divide in young people’s lives.
This review has identified that this research study can be characterised as focusing on the *spaces between* – the spaces between childhood and adulthood; between formal curriculum standards-focused schooling and personal learning around connectedness to place; the differing perceptions of the value of places between teachers and students; between the physical, cultural and virtual places; and the intersection between environmental education, wellbeing and health promotion. An unsurprising situation when the basis of the study place itself is described as a slippery concept that crosses boundaries of location, culture, identity, interpretation and memory.

Environmental education research is at times criticised as fragmented and lacking in connections between studies and theory (Meyers, 2006; Rickinson, 2001). *Environmental Learning*, by Rickinson, Lundholm and Hopwood (2009), a key reference in the discourse, focuses on classroom settings. This study will aim in a small way to complement this work by investigating environmental learning in the context of local outdoor natural places. Local nature place-based learning has been identified as a missing area of research and practice (Sauve’ & Berryman, 2003; Stevenson, 2011; Wattchow & Brown, 2011). Thus this study aims to contribute to the development of a better understanding of young people’s engagement with natural environments and environmental education through investigating how they interpret and make sense of their lived, place-based experiences by co-opting the young people themselves as researchers to genuinely seek to understand the places that matter to them and build on others’ prior place-based research.

In the following chapter – Chapter Three (Theoretical Framework) – I now consider the theoretical framing that the study is situated within, which are the intersecting areas between (1) the human developmental stage of adolescence; (2) the socioecological theory of human development and learning; and (3) the significance of place in the human psyche.
CHAPTER THREE
THEORETICAL FRAMEWORK

Introduction

It will be recalled that the broad base for this study into which everyday places matter to adolescents, the places and spaces they value and how they engage with these places, crosses a number of theoretical interests – adolescent learning and development, learning theories including those around outdoor, environmental and nature-focused learning, place related theory and socioculturally related theories of learning and development. Underpinning all of these is the basic ethos of learning as socially constructed, the predominant view of learning in education today (Wals & Dillon, 2013), that the person constructs their cognitive, affective and conative position through interactions and processes involving their internal and external worlds.

The research questions for the study serve to narrow the theoretical focus. It will be recalled that the overarching research question is:

*What local places are significant to adolescents and how do they engage in those places?*

With the subsidiary questions being:

- *How do adolescents perceive the natural environment as part of the places and spaces (physical and digital) they inhabit?*
- *What environmental learning is associated with adolescents’ priority places and spaces?*

The research questions highlight the core of this study’s foundations; namely place and place interactions in the lives of adolescents, clearly identifying that the theoretical foundations of the study are in the intersecting areas of (1) the life stage of adolescence, (2) environmental psychology theory regarding place, identity and development, and (3) socioecological theory of development/learning. As noted earlier other theoretical bases could be drawn upon for developing this research. For example experiential learning plays a key role in exploring the outdoor learning interactions this study is focused on. By foregrounding the theoretical areas of adolescence, place psychology and socioecological theory in this study, a theoretical
framework emerges that is strengthened by the intersections evident between these theoretical perspectives. Intersections that inform this research by identifying commonalities, differences and absences in perspectives around the psychology of place identity/attachment and the socioecological implications of place interactions in adolescent development and learning. These theoretical perspectives are explored in detail in this chapter.

A crucial detail to note in exploring the theoretical basis for this study is one of terminology. In the education sphere the impacts resulting from a young person’s interactions with their setting (the school) are predominantly discussed in terms of learning outcomes, whereas from a sociology or psychology perspective impacts are generally discussed in terms of child development. That is, the cognitive, social, personal and affective impacts of young people’s interactions with their world can be described variously as learning, development and even wellbeing (Malone, 2008). I view learning and development as inextricably intertwined; one informs the other in terms of both process and product, so it is difficult to ascribe outcomes to one without the other when referring to ‘deep’ learning (not just factual recall or behaviour modification). I will therefore refer to the theoretical bases for this study as those of learning and development.

To outline the theories that have informed this study I begin with exploring the stage of adolescence in the human life span, followed by a review of socioecological theory, then direct attention to place theory, and conclude the chapter with a discussion of how these theoretical perspectives articulate with each other for a rich theoretical model for the study.

Theoretical foundation 1: Adolescence

Adolescence is “the most significant, naturally-occurring period of disorganization in the life cycle” involving physical, intellectual, social, and emotional changes, and issues of self perception and establishing a place in the adult world (Marcia, 1983, p. 215).

It will be recalled from Chapter One (Introduction) that adolescence is variously described with the most common categorisation of adolescence locating this in the second decade of life (Spear, 2000). Many theorists identify early, middle and late stages of adolescence (Berzonsky & Adams, 2003). For the purposes of this study the theoretical aspects of

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9 As noted in the introductory chapter the adolescent age range considered in this study is 11-18 aligning with the age range of young people participating in secondary schooling.
adolescence will be considered broadly, not as delineated stages, as suited to the scope of this study. The theoretical framing for this study incorporates an integration of three theoretical perspectives, thus this consideration of the theoretical aspects of adolescence does not seek to capture some of the more nuanced developmental differences of adolescence. Instead this theoretical framing presents the broad scope of adolescent development to identify the developmental imperatives that contribute to the factors that mediate adolescents’ connectedness to the places that matter to them, the focus of this inquiry.

Adolescence is the time in the human life span that encompasses the years between childhood and adulthood; a time of transition from a dependent child to an independent adult involving a complex interplay of processes (Berzonsky & Adams, 2003; Matteson, 2012). Adolescence is frequently regarded as a time of traumatic change in all aspects of a young person's life, often described as a time of 'storm and stress' (Dent, 2010; Gerrig, Zimbardo, Campbell, Cumming, & Wilkes, 2011; Scott, 2009; Stevens et al., 2007). The stereotypical view of adolescence is often that of adolescents/youth as a problem, causing adults concerns (Kelly, 2000; Wyn & White, 1997), with a sense of adolescence as a progressive stage that inevitably all humans experience in transition towards the 'normal' of adulthood. This popularist view characterises adolescents as incomplete, rebellious and at the mercy of hormonally-driven inner turmoil; basically a deficit model that is in need of externally provided controls from parents, teachers and society, giving rise to the image of adolescents/teenagers as "hormonal, unfinished, oppressed or unruly" (Stevens et al., 2007, p. 120). Recent challenges however to this dominant deficit envisaging of adolescence have developed from sophisticated brain imaging (neuroscience) research and critical analysis of this dominant, relational conceptualisation of adolescence to construct a picture of adolescence as a valued, distinct lifestage, not just as a transition. A time that that is increasingly attracting interest as a pivotal lifestage (Berzonsky & Adams, 2003; UNICEF, 2011; WHO, 2014).

A key criticism of the depiction of adolescence as a time of tumultuous upheaval is that this is a deterministic and relational view of adolescence based on the adult ‘norm’ which in itself is a disputed construct predominantly based on western, masculine, white perspectives (Lesko, 2012; Stevens et al., 2007; Wyn & White, 1997). The predominantly western viewpoint however dominates the discourse; a discourse based in an individualistic culture where autonomy and independence is valued in contrast to many other contexts that preference collectivist and interdependence values (Panelli & Tipa, 2007). In many non-western cultures adolescence is a time of transition marked calmly by increasing responsibilities and significant life stages, often distinguished by cultural rites of passage (Gerrig et al., 2011; Stevens et al., 2007). The adolescents in core majority contexts such as India (where one group of adolescent
researchers in this study are from) are positioned differently to adolescents in western-style societies. In India the development of independence and autonomy is not a key aspect of adolescent development, instead young people engage dutifully with societal expectations and responsibilities (Brown et. al., 2002).

**Dimensions of adolescent development**

Adolescence is universally a time of physical, intellectual, social and emotional development that all young people experience, impelled by their body processes. In the following I outline the key biomedical and psychological perspectives and theorising related to adolescent development, followed by the recent insights from neuroscience research that have enhanced understanding of this lifestage.

**Physical development**

Undoubtedly adolescence is a time of obvious change as a child changes into a sexually mature adult with the accompanying physical, intellectual, social and emotional changes. The most noticeable change in early adolescence is physical; both in terms of growth and the onset of puberty. An increase in production of growth hormone stimulates a prepubescent growth spurt, usually a sign that the sexual maturation process, puberty, is about to commence (Gerrig et al., 2011). The physical changes of puberty that are most familiar involve increases in early adolescence of growth hormones and sex hormones that stimulate rapid body changes, resulting in overall growth and development of secondary sex characteristics (body features that identify as male or female). The physical changes also impact on an adolescent’s moods and sleep patterns changing these from those experienced as a child (Dent, 2010; Scott, 2009). Physical changes in the brain in adolescence are also significant (Steinberg, 2010) and will be discussed in more detail later in this chapter.

With the physical changes in their body, their hormones and their brain, adolescents cannot always function in a consistent way. For example rapid growth of bones, tendons and muscles can outpace accompanying brain motor coordination realignments which can make adolescents appear as clumsy, which in turn can lead to feelings of embarrassment and anger (Dent, 2010). The way adolescents interact and interpret the world is as complex and changeable as the changes that are happening within their bodies, which has lead many scholars over the years to study and theorise about adolescents’ cognitive, social and moral development.
Cognitive development

Theories of cognitive development have been dominated by Jean Piaget’s theory about the stages of cognitive development a person progresses through during their childhood (Gerrig et al., 2011). According to Piaget, a young person at early adolescence is moving from the concrete operations stage, where they think in a logical fashion grounded in properties of physical objects (ages approximately 7 – 11 years), to the formal operations stage where their thinking abilities extend into the abstract, including being able to reason and theorise beyond what is in front of them (from approximately 11-12 years on) (Gerrig et al., 2011; Piaget, 1972/2008). Piaget’s theory of cognitive development has been influential in education for over 50 years. Modern advocates of this position, the ‘neo-Piagetians’, explain cognitive development based on Piaget’s model but enhance this by adopting a more evidence-based approach to the assertions of Piaget, and draw from information processing theories of cognition to explain cognitive development and account for the individual and sociocultural impacts Piaget’s theory does not accommodate (Demetriou, 2006). Brain science now confirms Piaget’s observations that brain development increases with maturation. (The neuroscience aspects of adolescent development are discussed in more detail later in this section.)

Other cognitive theorists highlight the social dimensions of cognition. Vygotsky (1978/1997) in particular has had a marked influence on current educational practice. Vygotsky maintains that cognitive development is strongly linked to social input and like Piaget views cognitive development as occurring in stages. Vygotsky’s proposition that thinking is scaffolded or assisted through experiences is widely applied in teaching practice. This interplay of intellectual and social factors in cognitive development highlights the complexity of the interplay of influences on adolescent development.

Development of ‘self’

Adolescence has traditionally been seen as a time for identity development, founded on the psychosocial stages of development theorised by Erickson where adolescence is viewed as the critical time for identity formation and, in later adolescence/early adulthood, the time of establishing close bonds (romantic and friendship) with contemporaries (Brown et al., 2002; Gerrig et al., 2011; Groundwater-Smith et al., 2007; Gullotta et al., 2000). Accordingly adolescents are self focused (Eccles et al., 1993; Elkind, 1967) as they work towards their “psychosocial task of forming an ego identity” (Marcia, 1983, p. 558). Adolescence as a transitional time between childhood and adulthood involves separating from the family unit, developing a separate identity and life away from parents (Marcia, 1966, 1983). This process of separation over the years of adolescence involves young people testing themselves against
cultural and societal frameworks that already exist in their lives (values, rules, ‘norms’ of behaviour and dress, etc.) in the quest for self definition, sometimes viewed as rebellion, as trying on different personae and often causing conflict (Gerrig et al., 2011; Gullotta et al., 2000; Wyn & White, 1997). These ‘separation behaviours’ reflect a core adolescent process of an evolving sense of identity, crucial to eventual engagement with the world as an individual. Again it should be noted that the discourse related to establishment of ‘self’ is strongly affluent minority world focused (Brown et al., 2002).

Social development

The relational aspects of an adolescent’s life become a high priority as their lives broaden from family, school and carers to encompass a larger social world of peers, frequently a larger (secondary) school, sport, community and part-time work networks. In response to their bodily, cognitive and social positioning changes associated with the process of separation from parents, adolescents source direction and approval from peers (Marcia, 1983), progressively preferentially seek out peer interactions with maturation (Cahill, Shaw, Wyn, & Smith, 2004; Scott, 2009). Neuroscience has confirmed this sensitivity to peer influence in young people (Grosbras et al., 2007; Spear, 2000). Bronfenbrenner’s social ecological systems theory, that provides an underpinning theoretical framework that will be discussed in a later section of this chapter, accentuates the complex interplay of social and cultural factors that influence development, advancing people with close relationships as primary influences on development.

Adults when observing the sometimes confronting behaviours exhibited by young people and their friends often question the morals and values of teenagers. The foundational theorist regarding moral development is Kohlberg who proposed stages of moral reasoning related to Piaget’s stages of cognitive development; describing a progressive change from self-centred moral judgments to a more a social justice orientation of morals where reasoning is aligned with societal ‘norms’ to effect the greater good by later adolescence; although gender variations and the lack of attainment of the latter stages of moral reasoning in some individuals has been noted (Gerrig et al., 2011; Scott, 2009).

There are many more ideas, interpretations and theories related to understanding adolescence than those presented here. I have only explored the seminal theories that inform understanding of the life stage of adolescence, acknowledging this theorising is generalised and individual variations and difference exist, and this understanding is dominated by discourse based on affluent minority societies (Hart, 2008a).
Neuroscience insights

Neuroscience research with brain activity imagery in recent years has contributed new information to the theorising about adolescent development and behaviours that is contrary to the media-popularised stereotype of adolescents as controlled by ‘seething’ hormones. Times of ‘storm and stress’ do occur for some adolescents but these are in the minority (Anthony et al., 2014; Berzonsky & Adams, 2003). It is now recognised that the time of adolescence is dominated by brain development and reorganisation (Dent, 2010; Dobbs, 2011; Fuller, 2005; Gerrig et al., 2011; Spear, 2000; Steinberg, 2010; Weinberger, Elvevag, & Giedd, 2005).

With the onset of puberty neural interconnectivity is increased through the process of myelination, particularly in the prefrontal cortex of the brain (the area responsible for higher order thinking such as decision making and reasoning), and this neural process increases the speed of cognitive processing (Blakemore & Frith, 2005). Allied with increased neural conductivity is the process of neural ‘pruning’ in the prefrontal cortex to increase effectiveness (Blake & Frith, 2005; Spear, 2000). While the remodelling of the prefrontal cortex takes place the limbic brain region that governs emotions and the dopamine-related activity that drives reward/success seeking behaviours dominates adolescent brain processing (Dobbs, 2011; Fuller, 2005; Spear, 2000; Steinberg, 2010; Weinberger et al., 2005; WHO, 2014). There is some evidence of a decrease in response to stimuli in the adolescent brain during this time of restructuring, indicating a higher stimulus threshold is required to elicit responses (Spear, 2000).

The restructuring of the teenage brain progresses unevenly, with development in different areas of the brain and the connections between them occurring at different times; and with the maturation of the reasoning and control centre, the frontal cortex, at the conclusion of development (Dent, 2010; Dobbs, 2011; Scott, 2009; Steinberg, 2010). This time of brain development with the immaturity of the governing and moderating frontal cortex explains much of the adolescent behaviour that we see - learning agility, inconsistency in behaviours, increases in preference for reward-seeking behaviours, and impulse-driven, risky behaviours (Dent, 2010; Spear, 2000).

Adolescent developmental processes

The modern view of adolescence as a valuable, necessary and exciting time of opportunity and exploration portrays adolescence in a much more positive light than that of the stereotypical emotional teenager (Blakemore & Frith, 2005; Dent, 2010; Stevens et al., 2007). Neuroscience
evidence adds weight to the supposition that the sensation-seeking behaviour of adolescents encapsulates a pragmatic adaptive advantage; of seeking out the new – places, people and opportunities – in order to establish oneself as an adult; a biological ‘dispersal’ imperative that compels young people to move out of the family unit (Anthony et al., 2014; Dobbs, 2011; Gerrig et al., 2011; Spear, 2000).

The core adolescent processes associated with separation from the family unit are therefore self determination, development of autonomy and self-management, establishment of social competence, and the associated physical and cognitive growth of maturation (Berzonsky & Adams, 2003; Brown et al., 2002). The behavioural imperatives that support these developmental processes are active engagement with stimulating experiences; social interactions, particularly with peers; seeking self determination and autonomy; and restorative/ reflective behaviours (Berzonsky & Adams, 2003; Brown et al., 2002; Spear, 2000).

Stimulating, challenging (sometimes risky) experiences enable adolescents to experiment with adult behaviours and determine their physical and cognitive competence as part of their developmental processes (Marcia, 1983; Spear, 2000; UNICEF, 2011). Unstructured activities or ‘play’ are needed throughout childhood to explore capabilities, relationships and identity (Greve, Thomsen, & Dehio, 2014; Huby & Bradshaw, 2006; Malone, 2004, 2007a, 2007b; Marcia, 1983). Play is not a word usually applied to adolescent activities but equates to the unstructured experiences of having fun and ‘hanging out’ with friends (Schubotz & McCooey, 2013). Nabhan and Trimble (1994) and Kellert (2002) advance natural environments as providing rich stimulation that enhances challenging ‘play’ suitable for supporting developmental needs but concerns have been raised by a number of prominent scholars that the modern ‘hurried’ childhood inhibits the free play (particularly nature play) opportunities necessary for healthy development (see for example Orr, 2004; Pyle, 2008).

Adolescence is a time of vulnerability for young people as they experience the complex change processes and developmental imperatives associated with this lifestage (Berzonsky & Adams, 2003; UNICEF, 2011). As they quest for independent and stimulating experiences and social interactions they need a dependable and restorative family base supporting them (Brown et al., 2002; Marcia, 1983). Nature may also supply restorative opportunities for adolescent development imperatives as previously described in Chapter Two (Literature Review). In fact Hasbach and Kahn (2013) argue that to truly flourish humans need to connect with wild nature.
Section summary

Adolescence has been described in this chapter section as a dynamic state of changing body, brain, cognitive, psychological and social development processes that promote behavioural imperatives of seeking stimulating, challenging experiences; social interactions; opportunities for autonomy; and times of reflection and restoration in order to support healthy development.

Foregrounding experience as a cornerstone of understanding adolescence articulates with the second theoretical element of this study, socioecological theory, which considers the influence of interactions and experiences on an individual’s development, which I now turn to examining.

Theoretical foundation 2: Social ecological theory of human development, learning and social practice

Including social influences in developmental, behavioural and learning theory

There has been a long history of interest and research into human behaviour and development (Fleer & Edwards, 2003). As described earlier in the discussion of adolescence, cognitive developmental scientists, who maintain that there is a progressive sequence of developmental milestones in normal human development, dominated the field and strongly influenced educational approaches during the twentieth century. Over the years there has been much debate about the degrees of influence of ‘nature’ (genetically predetermined patterns of development and behaviour) versus ‘nurture’ (development and behaviour as the result of interactions with contextual environments). In recent decades dissatisfaction with the lack of scope for recognising individual difference within the cognitive developmental approach and a shift towards a generalised acceptance of theories that recognise the influences of an individual’s social, cultural and historical environments as essential elements of development, constructing meaning and as a basis for social practice, has come to the fore. Virtually all contemporary discussions of development adopt an epigenetic approach that explores gene-environment interactions as a more holistic model of development, recognising that influences without and within simultaneously affect individual development/learning (Moen et al., 2001).

Such approaches are variously described as belonging to a socio/cultural/historical perspective. At the foundation of many interpretations of socio-cultural theory is the work of
Vygosky who developed a framework of social/cultural interactions to enable interpretation of cognition and developmental processes (Edwards & Fleer, 2003; Fleer, Hedegaard, & Tudge, 2009; Hedegaard, 2009).

**Bronfenbrenner’s social ecology systems theory**

A socio-cultural theory variation that has significantly influenced the field (Hedegaard, 2009) is the ecology of human development framework proposed by Bronfenbrenner (Bronfenbrenner, 1977, 1979, 1993, 1995; Moen et al., 2001). Bronfenbrenner describes a hierarchy of developmental influences based on a systems approach to locating the complex interchanges through which the individual gains their knowledge, makes sense of their world and in turn impacts on the world; that is, how they make meaning in their life and develop as a person.

Bronfenbrenner, informed by dynamic natural ecological systems, envisages the factors influencing a person’s life as a nested system of interactive layers of biological, social, cultural, physical and time components, with the individual at the centre of the system. The individual’s internal biological, emotional and cognitive system and their immediate interactions with their physical and social environments (family, school, etc.) make up the central ‘Microsystem’. Interacting with this is the surrounding ‘Mesosystem’, which is composed of other connecting Microsystems (those of parents, peers, for example). The Mesosystem is the sphere for the significant “proximal processes” (Bronfenbrenner, 1993, p. 38) of embedded interactions between an individual and the intimate elements of their lives - family, friends and the places that they live and learn in. Recognising that social interactions do not occur without context, the next enclosing system is that of the ‘Exosystem’ which situates the individual and their reciprocal Mesosystem interactions within the their geographical/social/cultural setting of dwelling; while the ‘Macrosystem’ encompasses the broader influences of the political, financial and national socio-cultural situation that directly and indirectly impact on the connected Macro and Microsystems. The ‘Chronosystem’ was a later addition to indicate the shifts that occur on the socio-ecological system with the influence of time (Moen et al., 2001).

Bronfenbrenner’s model of developmental influences is a highly flexible yet coherent overview of the way multiple developmental influences interact in ways that bridge the distance between individual, social and environmental factors.

Bronfenbrenner’s nested systems of ‘spaces’ that the individual interacts within provides a meaningful framework for looking at the people, places/spaces and cultural factors that are important to adolescents, and a way of ordering and conceptualising the many factors that impact on their perceptions, learning and practices, represented by my schematic in Figure
3.1. This diagram represents the direct and indirect influences from Bronfenbrenner’s social ecology system model that simultaneously impact on an adolescent’s development and learning; providing both an holistic view of the system and an identification of influencing factors. This provides me with context when investigating the places/spaces that are valued by adolescents.

As can be seen in Figure 3.1, the Microsystems of others (family, friends, significant others e.g. teacher, coach) influence the adolescent. So too do the Exosystem setting factors such as community, school, physical and socioeconomic factors. All these Microsystem and Exosystem influencing factors are directly or indirectly impacted by underpinning influences such as the culture and institutions of the adolescent’s Macrosystem; with the whole interconnecting system changeable over time. Thus Bronfenbrenner’s depiction of a person’s socioecological

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**Figure 3.1:** A representation of the socioecological setting and interactions of an adolescent’s life based on Bronfenbrenner’s (1977, 1993) social ecology systems theory of human development.
system is a complex, multiple perspectives yet coherent systems view of the interacting influences on an individual’s development and learning.

More recently Johnson and Puplumpu (as cited in Johnson, 2010) proposed the addition of a technology overlay to Bronfenbrenner’s Microsystem (see Figure 3.2), as their research has demonstrated that communication technologies are having a significant influence on cognitive development and therefore needs to be included as an essential element of the Microsystem. The influence and positioning of technology-mediated interactions within a person’s dynamic social ecological system is an important consideration in this study focused on identifying adolescents’ place interactions that includes the influence of the modern digital landscapes.

![Figure 3.2: Johnson and Puplumpu’s Socio-ecological Techno-Subsystem (Johnson, 2010).](image-url)

**Related socioecological theorising**

Other scholars have explored and theorised about the factors impacting on people’s lives (see for example Dahlgren and Whitehead’s 1991 nested ‘rainbow’ model of social influences on health determinants cited in Michie, 2012), such that other conceptualising models have been developed that have similarities with that of Bronfenbrenner’s social ecological model. From
the health sector over the last four decades Moos (2003) has used a model of intersecting components to describe the comprehensive interactions of an individual’s social context that influences the way they live their lives – the interconnected elements of the physical setting, organisational structures and systems, society influences and the ethos and culture of their setting (Moos, 2003; Wattchow et al., 2014). In Falk and Dierking’s contextual model of learning, they have identified three intersection elements of the personal, physical and cultural dimensions that influence a person’s meaning-making interactions within the world (2000, as cited in Falk, 2005). On a smaller scale, focused on health and wellbeing in a school setting, the Health Promoting Schools model identifies the key components that impact on an individual as the environment (physical, organisational and philosophical factors) intersecting with setting/cultural/community connections and the health education learning experiences (IUHPE (International Union for Health Promotion and Education), 2009). Wattchow et al. maintain that when taking a socioecological pedagogical stance this also spotlights experiences as influential, viewing subjective, embodied, empowered experiences and interactions with people, places and processes as core frames of socioecological transactions from an educational perspective (Wattchow et al., 2014).

That these well-regarded socioecological interaction models for depicting the influences on a person’s development/learning/wellbeing all have the physical environment included in the complex, interconnected interactions between model dimensions gives me confidence that physical environments (places) are a relevant focus for this study. Clearly a socioecological perspective is recognised as a useful theoretical approach to understanding humans’ interactions within their world. These different theoretical frameworks with their commonalities also reaffirm that separate disciplines use different terms to describe the outcomes of a person’s socioecological interactions; be it development, learning, meaning making or wellbeing. Consequently I feel confident in using Bronfenbrenner’s social ecology theory of human development as a theoretical frame for this study. His model of a complex nested system of factors driving learning and development gives scope for identifying different influences on an individual as they engage with the places around them. Bronfenbrenner’s model enables identification of the influences involved with adolescents’ expanding range of interactions and interconnections as they progress through this lifestage. In addition, in his framework the person is placed at the heart of the model which gestures towards my methodological approach of co-opting adolescents (the study subjects) as researchers that will be described in Chapter Four – Methodological Approach.
Interacting within a socioecological framework

Both Bronfenbrenner and Stetsenko (in Fleer et al., 2009) in her expansion of the Vygosky-grounded socio-cultural theory of human development, include the embodied individual as an essential part of the interactions between components of the physical, social and cultural environments. That is, the interactions of the body (biology, emotions and cognitive processes) are included as part of the complex jigsaw of social practice and human development. This resonates with Stevens et al.’s (2007) focus on embodied subjectivities and Wattchow et al.’s (2014) notion of lived experiences as foundations of understanding adolescence (Stevens et al., 2007) and ‘ways of knowing’ (Wattchow et al., 2014, p. 211). It is my contention that this inclusion of the embodied knowing of an individual’s socio-cultural/ecological environment again signposts the importance of using students as participant researchers in my study, drawing upon their lived experiences of local places. As socioecological educators Greenwood and McKenzie advocate "we can consider the cognitive and embodied/sensory to be woven together in experiences“ (2009, p. 10).

Section summary

Socioecological theorising that contributes to understanding mechanisms of development and learning have been explored in this chapter section with a particular focus on Bronfenbrenner’s complex social ecological systems theory to identify factors that influence adolescents’ development and contribute to their place engagements.

Natural places, with their complex natural ecological systems, are viewed as logical settings for experiences that engage the sensual, embodied, affective and cognitive natures of an individual; that such places are rich in experiences and, as such, have an important role in development (Clayton & Opotow, 2003; Kellert, 2002; Smith & Sobel, 2010). Accordingly I now shift focus to consider the role place plays in the human psyche.

Theoretical foundation 3: Place psychology theory

The stimulus of interest in the environment in the late 1960s / early 1970s that gave the impetus for the emergence of environmental education, as described previously, also gave rise to interest in the behavioural and social sciences about the relationship between people and their surroundings, that is, the broad and interdisciplinary field of environmental psychology, which includes study of the effects of the physical environment on behaviour and interactions
(Proshansky, 1978). The physical environment has been demonstrated to impact on a person’s perceptions of themselves and their positioning in socioecological systems (Devine-Wright & Clayton, 2010), consistent with Bronfenbrenner’s theory of social ecology that provides a complementary theoretical foundation for this study.

**Place, difficult to define**

Place, as described in the previous chapter, is an intricate notion that is a highly subjective, constructed and relational concept (Bonnett, 2013; Greenwood, 2013; Gustafson, 2001; Hopkins, 2010; Stedman, 2003). It is has been called ‘slippery’ as it is a term wrapped with different layers of meaning from the purely physical components to the ecological, social, cultural, lived, imagined and remembered elements (Cresswell, 2004; Wattchow & Brown, 2011). Related terms of environment, space and landscape are also used in relation to places, again with multiple interpretations. Conceptualising of the environment can range from consideration of the physical surroundings to an integrating systems view (Loughland et al., 2002; Wattchow et al., 2008). Space has been viewed as social (Lefebvre, 1991, in Cresswell, 2004); empty or undifferentiated (Cresswell, 2004; Wattchow & Brown, 2011); or virtual (Gough, 2009), although more recently Stevenson (2011) included the virtual within his definition of place which gestures towards Johnson and Puplumpu’s incorporation of a ‘Techno-Subsystem’ in their modern re-conceptualisation of the social ecological system noted in the previous chapter section. A landscape perspective is often seen as an outsider observing places (Brandt, 2013; Cresswell, 2004). Place, although variously interpreted by geographers, architects, urban planners, environmental and outdoor educators, is seen essentially as socially constructed and inhabited, so there is a sense of personal intimacy and connectedness with the concept of place.

**Describing people-place relations**

Place as a human conceptualisation signifies that places perceived as significant have an impact on a person’s interactions and meaning making related to that place. The person-place interplay has a reciprocal meaning-making effect - engagement activities contribute to the subjective defining of the place, while the place interactions in turn effect a person’s perceptions of themselves as “places hold and shape our experiences” (Greenwood, 2013, p. 93). This impact of place on a person’s life has given rise over the last four decades to a theoretical basis for understanding people-place interactions with key descriptors for the association of the surroundings with self of ‘sense of place’, ‘place identity’, ‘place
attachment’, ‘place dependency’ and ‘place meaning’. Just as place is variously interpreted, people-place terminology is frequently loose and ambiguous. Marrying place with other terms (themselves often mercurial in definition) so as to create singular concepts results in descriptors that are conceptually dense and open to interpretations (Stevenson, 2011). The following gives an outline of the key understandings around people-place relations.

**Place affordance**

Gibson’s affordance theory, originally proposed by James Gibson and applied to perceptual learning by Eleanor Gibson, has informed environmental education researchers’ investigations into the properties of physical environments that motivate behaviours (see for example Chawla, 2007; Malone, 2012). Affordance theory indicates that the environment “provides (affords) resources or supports that an animal may (or may not) attend to and use” (Gibson, 2000, p. 54). There is not a people-place relationship dimension to place affordance as affordance describes a functional characteristic of a place. Place affordance is therefore not incorporated into the sense of place discourse that follows but as a dimension of place that potentially impacts on adolescents’ place engagements, place affordance is included in this elucidation of people-place interactions.

**A sense of place**

‘Sense of place’ is regarded by many scholars as the overarching people-place relationship concept (Kudryavtsev, Stedman, & Krasny, 2011). The sense of place constituent elements are shown in Figure 3.3 positioning the people-place associations of identity, attachment, dependence and meaning as contributors to a sense of place (Hay, 1998; Kudryavtsev et al., 2011; Stedman, 2003; Stevenson, 2011). A sense of place developed through these various people-place interactions engenders a sense of belonging to place (Cameron, 2003). Although the relationship between the dimensions of people-place conceptualising is not always as straightforward as shown in Figure 3.3 (Ardoin, 2006), there is a general accord around the complexity of interwoven influences that contribute to the development of people-place relation constructs, with a sense of place seen as an integrative approach (Hay, 1998; Kudryavtsev et al., 2011).
A sense of place is envisaged as broadly encompassing the people-place connections and meanings made through the interplay of setting characteristics (physical and social), place-based experiences and place-based conceptualising or meaning making (Relph, 1976, as cited in Gustafson, 2001; Stedman, 2003). Of these interactions, those that lead to notions of place attachment, place identity and place dependence describe the connecting or bonding of self to place (Hay, 1998; Kudryavtsev et al., 2011) while place meaning refers to the meanings and symbolism around self, others and the environment (Gustafson, 2001). Thus a sense of place is developed through associations to do with affinities, meaning and use ascribed through person-place interactions, with each of the sense of place contributing elements (identity, attachment, dependence and meaning) frequently an area of study in their own right. A “Russian doll geography” (Massey, 2004, p. 9) of interconnected elements that resonates with Bronfenbrenner’s social ecological systems that also informs the theoretical framing of this study as described earlier. Overall, a sense of place is a multidimensional amalgam of people-place relationship conceptualisations (Stevenson, 2011). A synopsis of the key contributing dimensions to a sense of place follows.

**Place attachment, identity and dependence**

Building on the seminal works of Altman, place attachment describes the affinity that people develop for particular places (Altman, 1993). The attachment to place involves both emotional and functional bonds (Vaske & Kobrin, 2001). Attachment to a place is dynamic; influenced by
the interplay of solitary and group interactions and needs, including current and past determinants (Altman, 1993; Tuan, 1979). The key factor is experience, as place attachment is seen as developed through experiences of place (Kudryavtsev et al., 2011; Tuan, 1977; Vaske & Kobrin, 2001). Altman (1993) views place as a treasury of memories as well as the facilitator of behaviours and experiences that forge the person-place bond. With this dynamic interplay between person and place comes reciprocity; that place makes the person and the person makes the place (Greenwood, 2013; Tuan, 1979; Uzzell & Räthzel, 2009). This reciprocity is understandable when place attachment is considered as influenced by either dependency or personal identity. Place dependency is regarded as a functional relationship where place supplies necessities, and place identity is seen as the emotional aspect of the person-place relationship (Kudryavtsev et al., 2011; Vaske & Kobrin, 2001); such that place impacts on the person and the person, in engaging with the place that fulfils their needs, in turn fashions the subjective construct that is place.

Place dependence is a straightforward person-place relationship, where a person’s physiological and psychological needs are supplied by the place, creating a survival or needs-based functional attachment to place (Kudryavtsev et al., 2011; Vaske & Kobrin, 2001). The emotional bond of place identity however is not as easily defined. Place Identity is a complex concept that has captured the interest of many researchers since the ‘father’ of place identity, Proshansky, defined this as “those dimensions of self that define the individual’s personal identity in relation to the physical environment” (1978, p. 155). Place identity is regarded as a subset of self identity (Bonnett, 2013; Clayton & Opotow, 2003; Hopkins, 2010; Vaske & Kobrin, 2001) and recognised as a complex construct influenced, similar to place attachment, by interwoven, dynamic factors of individual, group, past, present and imagined experiences (Devine-Wright & Clayton, 2010; Proshansky, 1978). The relationship between place identity and place attachment is not clearly defined, with some scholars regarding place identity as a subset of place attachment (see for example Kudryavtsev et al., 2011), whereas others view the opposite; that place attachment is an aspect of identity (e.g.Devine-Wright & Clayton, 2010). However viewed, where we live and conduct the activities of our lives shapes our “mindscape” (Orr, 2005, p. 93).

Hall, Coffey and Williamson (1999) advocate that adolescents negotiate their identity through place interactions. Use of place interactions to inform the adolescent development process of self determination aligns with Grunewald’s contention that “places teach us about how the world works and how our lives fit into the spaces we occupy. Further, places make us” (2003b, p. 621 with Grunewald’s emphases). Accordingly this aligns with adolescent place researchers who posit young people’s favourite places as providing insights into their identity construction
In environmental education there has been a growing interest in linking connections between perceptions of self in relation to natural places and caring for nature behaviours (Clayton & Opotow, 2003; Devine-Wright & Clayton, 2010). Descriptors of ecological identity (Thomashow, 1995) and environmental identity (Clayton, 2003) as specific examples of self and place identity have developed in the discourse, and Orr (2011) poses a sense of place that connects with nature as promoting ecoliteracy (what he describes as proficiency in knowing nature). Thus, highlighting the importance of considering psychological dimensions within explorations of people-place relations, and the inclusion of these dimensions in this inquiry into adolescent-nature relations.

**Place meaning**

As places become conceptualised as significant in a person’s life they become saturated with meaning – memory clues, symbols and valued elements that have significance to individuals and collectives (Cresswell, 2004; Kudryavtsev et al., 2011) – the more closely bonded to place, the more meaningful the place is in a person’s life (Vaske & Kobrin, 2001). Noted place philosopher Tuan suggests that places as settings of social interaction are centres of meaning, that both private and public symbols (such as art, architecture, homes, neighbourhoods) give rise to affection and bonding with settings so that spatial locations are made into places of meaning (1977, 1979), hence meaning is the “essence” of place (Relph, 1976, as cited in Cresswell, 2004). Gustafson has mapped reported place meanings into three interrelated categories - meanings in relation to self, others and the environment - indicating an extension beyond just self as the frame for place meaning making (2001). Others concur, viewing the meaning making and symbolism of places as a separate person-place relations domain that expands beyond the boundaries of place attachment or place identity (Kudryavtsev et al., 2011), as is depicted in diagrammatic representation of sense of place dimensions presented earlier in Figure 3.3. Regardless of the classification, meaning making is at the core of all environmental psychology discussions of place (Stedman, 2003; Stevenson, 2011).

**Place – disputed definitions but recognition as an essential**

Despite ambiguity around differing theoretical models and interpretations of the psychology of place (Devine-Wright & Clayton, 2010; Kudryavtsev et al., 2011), as well as accord around meaning as a central tenet, there is also recognition of people-place relationships as
constructed (Bonnett, 2013; Greenwood, 2013) and the importance of the physical environment impacting on and contextualising the formation of place constructs (Cresswell, 2004; Greenwood, 2013; Stedman, 2003). Interestingly, place-connecting activities without embodied experiences in physical locations have recently been postulated as processes for developing a sense of place: experiences that enable a connection to place through versions of storytelling to enhance connections (Wattchow & Brown, 2011) and learning experiences related to places, particularly iconic places that are collectively valued (such as the Great Barrier Reef in Australia), so that attachment to places never visited can be evident (Kudryavtsev et al., 2011). Early conceptualising around people-place relations tends towards an intimate, local, often sentimental and stereotyped view of relationships with place (see for example discussions of the Heideggerian notion of homeplace in Wattchow & Brown, 2011), compared with newer conceptualising of people-place relations that also incorporate global and virtual connections (Cresswell, 2004; Stevenson, 2011).

**Place connectedness for wellbeing**

At the heart of all place connection discussions there is recognition of the crucial importance of these relationships to a person’s wellbeing (Titman, 1994; Wattchow et al., 2008), that a sense of place is the “bedrock of humanity” (Cresswell, 2004, p. 49). The literature contains terms that have become symbolic of the presence or absence of this fundamental sense of place in people’s lives: Relph’s descriptors of the ‘insiders’ of place, that is, those that have a sense of belonging compared with those that are ‘placeless’ (1976, as cited in Cresswell, 2004), and Tuan’s similar concept of those that are ‘rooted’ to place compared with those that are ‘rootless’ (1977), are influential and persistent themes in the literature.

A sense of belonging is recognised in the health sector as a key contributor to a person’s wellbeing and resilience (Moos, 2003; Ungar et al., 2007; Waters et al., 2009). A sense of place engenders connectedness, thus a sense of place as an aspect of belonging impacts on wellbeing. Active engagement in the settings of our lives, that is the places, has been proposed to be not only a crucial element of connectedness and wellbeing, some also view such experiences as essential in human development. de Winter, Baerveldt and Kooistra (1999) maintain that authentic, participatory experiences within the everyday settings of young people’s lives (such as school and neighbourhood) positively influence their development and wellbeing. de Winter et al focus on interactions within the social elements of places while noted place scholars have identified interactions with physical settings, specifically those that are seen as including nature, as an imperative for young people’s development and wellbeing (Barratt & Barratt Hacking, 2011; Kellert, 2002; Steuer, Thompson, & Marks, 2006). Just as a
young person’s social environment functions as a point of reference and comparison for
development, so too does the physical environment. By identifying our place in the world we
work towards discovering and reaffirming self (Bonnett, 2013; Greenwood, 2013; Nabhan &
Trimble, 1994; Orr, 2005).

An ecohealth dimension to indigenous peoples’ sense of place through their integral
connectedness to ‘country’ is recognised (Parkes, 2010; Rose, 2013) and discourse linking this
way of being as informing health and education is emerging (Eames & Barker, 2011; Parkes,
2010; Wheaton, 2000; Yunkaporta & Kirby, 2001). Panelli and Tipa (2007) propose a place-
based conceptualisation of wellbeing informed by indigenous peoples’ links to place. However
Nakagawa & Payne (2011) and Cameron, Mulligan & Wheatley (2004) caution sensitivity in
applying indigenous process to other contexts; indicating that the deeply held indigenous
interconnectedness with the landscape cannot be properly understood by the non-indigenous
so respectful application of these ways of knowing the land is essential. Worster (2006)
describes such a respectful, non-indigenous, salutogenic sense of place development,
modelled on indigenous cognitive, embodied, affective and sacred interactions with the
landscape that resonates with the multidimensional indigenous ways of knowing place
described in Chapter Two (Literature Review).

Basu et al. (2014) propose that the individual wellbeing benefits of connecting with
therapeutic places such as nature fosters societal wellbeing by restoring people so they are
more reasonable. It will be recalled from the previous chapter section that adolescents in
particular require times of restoration and reflection as part of their development; restoration
that can be facilitated by the therapeutic qualities of nature and thereby promote wellbeing.

Natural environments, in addition to being restorative, with their inherent diverse and
complex features, provide full sensual stimulation that is the very antithesis of bland
classrooms. Consequently experiences in nature have been advanced as essential for young
people’s general development, consistent with adolescent development theory outlined
earlier, through providing rich and stimulating experiences (Clayton, 2003; Kellert, 2002).
Natural places provide "challenge, immersion, intimacy, discovery, creativity, adventure,
surprise and more" (Kellert, 2002, p. 144). Experience in natural places has also been said to
kindle challenge and (acceptable) risk for adolescents – an element that is needed in their lives
for them to develop into skilled, independent adults (Kellert, 2002; Nabhan & Trimble, 1994).
More and more, health and environmental education scholars are questioning recent trends in
affluent-style parenting and schooling that guard young people from experiencing challenging
situations; that elements of risk-taking in familiar, safe settings are in fact viewed as vital for
maturation (de Winter et al., 1999; Malone, 2007a; Scott, 2009; Ungar, 2009). Inspiring life stories of experiencing nature during childhood support the position that activities in natural settings afford young people development-enhancing experiences, some that even become a type of ‘rite of passage’ (see for example Chawla, 2007; Nabhan & Trimble, 1994; Pyle, 2002; Sobel, 2008).

To summarise, adolescent-place relationships that include places that are an intimate part of young people’s lives and that evoke a sense of place, play a vital role in supporting adolescents’ developmental imperatives and influencing their health and wellbeing, including outdoor natural places that provide engaging settings for encouraging their development into resilient, competent adults.

People-place relations are complex. Research and understandings of people-place relations cross discipline boundaries, involving psychology, sociology, education, geography, health, outdoor and environmental education. Not surprisingly then, there are various and contested interpretations related to place, and people-place relations. Despite these differences there is a consistent theme in the literature of recognition of place as significant in people’s lives. Place is both a social and ecological environment and a person’s sense of place is their subjective conceptualisation that arises as the result of their dynamic interactions with their intimate places. Place has a powerful influence on the human psyche, on how we develop as a person and interact with the world.

Section summary

The multiple dimensions of people and place relationships have been outlined in this chapter section, identifying that place as a conceptualised location within one’s personal socioecological system, is connected to a person through processes of affordance, dependency, meaning, identity and an overall sense of place such that place relationship interactions are an influencing factor in development, learning and wellbeing. Accordingly people-place relationship theory plays a role in the life stage of adolescence and in socioecological theory of learning and development. That is, the three theoretical frames for this study intersect. I now turn to considering this interconnectedness between the three theoretical foundations for this study.
Overarching theoretical framework: The intersecting theoretical spaces

This research study into the places that matter to adolescents is about exploring with young people the reality of their emplaced, lived experiences. The theoretical frames of adolescence as a life stage; socioecological theory of development, learning and behaviour; and people-place relationships theory inform and underpin the research. Each of these theoretical foundations articulates with the other with the dimensions of each influencing adolescents’ engagements with places. This is more than an intersection or overlap of influence, there is a causation effect as part of the articulation between theoretical frames. Changes associated with adolescence impact on an individual’s perceptions, conceptions and interactions with places and also with the dynamics of their personal social ecology. Similarly changes in each of the other frames would correspondingly have an impact on the other two frames. For example, as an adolescent’s developmental imperative for seeking social interactions with peers shifts attention to new elements within their socioecological system, this potentially stimulates place making activity associated with the places aligned with these peers, which in turn may contribute to self determination as part of their development.

The model presented in Figure 3.4 where the key theoretical domains – adolescent development, place psychology and socioecological systems theory - are depicted as three interlocking cogs to represent this complex intermeshing of the influences on adolescent place engagement. Within each of these cogs in turn, the factors of each particular domain are identified. Extrapolating from Korpela et al.’s (2014) multiple mediation model for wellbeing through nature based recreation, my adolescent place engagement model represents the multiple developmental, psychological and socioecological factors that mediate adolescents’ place engagements that influence their development, learning and wellbeing.

As shown in Figure 3.4, within each of the three interconnecting theoretical domains of my place engagement mediating factors theoretical model, there are specific factors identified that influence the outcomes of adolescents’ place interactions.
This model indicates my theoretical stance that adolescents’ development, health and wellbeing, and environmental learning, are shaped by the combined influences of their place interactions, developmental processes and social ecology factors.

Experiences – stimulating, autonomous, social and restorative – are core adolescent processes towards the development of the adult ‘self’ as have been detailed in this chapter. Emplaced experiences are holistically educational (Bonnett, 2013), contributing to identity, wellbeing and belonging, also as detailed in this chapter. Socioecological theory is a valuable articulation of the factors that influence an individual’s development, learning and wellbeing; factors that have also been identified in this chapter. However consideration of place receives limited attention within socioecological theory (Wattchow et al., 2014), so privileging place theory in conjunction with socioecological theory strengthens the focus on place in the theoretically framing for this study, as “spaces and places must necessarily be fundamental considerations in (the) search for understanding the development of human behaviour and experience” (Proshansky & Fabian, in Titman, 1994).

I contend that the domains of adolescent development processes, social ecology systems and people-place relationships include the factors that influence the places that matter to adolescents; that is the factors that contribute to outcomes of healthy development, wellbeing and learning, as is presented in my place engagement mediating factors theoretical framework displayed in Figure 3.4. This model provides a strong theoretic framework for this study into
adolescent place relationships and also spotlights generative and absent spaces for investigation.

Chapter conclusion

This chapter locates the focus of this study within the theoretical areas of adolescence, place psychology and socioecological theory, and within the interconnecting territory between these three theoretical frames. In this chapter I have outlined the theoretical framing, the specific aspects of theories that apply to this study and how their commonalities signpost the focus for my research.

The theorising of adolescence has been explored through the traditional biomedical and developmental psychological perspectives that map adolescence as a lifespan time of change from a child to adult, through physical, cognitive, social, psychosocial, emotional and moral developmental. Recent contributions from neuroscience research and critical perspectives then extended the conceptualisation of the time of adolescence, resulting in a modern portrayal of adolescence as an important adaptive lifestage, contrary to the traditional stereotypes of adolescents. The adolescent processes necessary for healthy development and wellbeing were then identified as engaging in stimulating, independent activities, social interactions and restorative retreats.

The second theoretical frame of the socioecological theory of human development and learning, with a specific focus on the social ecology theory proposed by Bronfenbrenner (1977, 1979, 1993, 1995), was considered. Bronfenbrenner’s multidimensional systems approach was described as a complex system of interactions between the embodied, social, cultural and physical factors that facilitate the development, learning and social practice of an individual.

The third theoretical frame of place psychology theory was then presented; incorporating explorations of the people-place relationships described by ‘place affordance’, ‘sense of place’, ‘place attachment’, ‘place identity’, ‘place dependency’ and ‘place meaning’. Despite some ambiguous and contested people-place relations conceptualisations reviewed, the key understanding of place connectedness as a contributor to wellbeing and human development was identified.

The interplay between these three theoretical frames was articulated to illuminate the strong theoretical foundations for this study created through the use of the three interconnected theories of adolescence, place psychology and socioecological theory. The three interlinked
theoretical frames provide a model of the factors that mediate adolescent place engagements as the theoretical basis underpinning this research study into adolescents’ local place relationships.

Stevens et al. (2007) point out that reliance on just the theoretical background of adolescence for gaining an understanding of adolescents’ lives is limiting and that accessing young people’s perspectives and interpretations of their lived experiences is a less deterministic approach. To this end, the methodological approach taken in this study is participatory, which is detailed in the following chapter.

Before turning to the following chapter that details that methodology and methods, I conclude this chapter by revisiting the overarching research question and aligning this with the theoretical framing for the study.

**Aligning the research questions with the theoretical framework**

The overarching research question guiding this study is:

> What local places are significant to adolescents and how do they engage in those places?

The theoretical framing of the research, as described in this chapter, aligns with the research question by linking the factors of social ecology system elements, adolescent developmental imperatives, and place-making activities as possible mediators of adolescents’ place preferencing and of their wellbeing, developmental and learning engagements with these places. That is in theoretical terms the research question asks:

> What adolescent development, place relationship and socioecological system elements mediate adolescents’ place choices and engagement?
CHAPTER FOUR

METHODOLOGICAL APPROACH

Introduction

In this chapter I present and discuss the ‘child-framed’ methodological approach and mixed methods employed in this study to investigate the places that matter to adolescents and how they interact with these places. In Section One of the chapter I define the methodological positioning of the research with social constructivist and multiple methodology foundations. In Section Two I present and justify the research methodology of a ‘child-framed’ approach with a basis in phenomenology. Sections Three and Four present a detailed account of the research design for the study with Section Three presenting the data collection process and Section Four the execution of the data analysis.

Section One: Methodological Positioning

This initial chapter section positions this research with foundations in social constructivism and a mixed methodology framework; arguing that research into adolescents’ lived experience of place is socially constructed through the young people’s subjective, relational conceptualisations of place; with a mixture of methods providing a broad scope of techniques to record these constructions of place.

Mixed Methodology Research

According to Robottom and Hart (1993) research activities can be categorised according to three dichotomies: scientific or humanistic, quantitative or qualitative, positivist or interpretative. Recognising that this is a rather Spartan defining of research and there is a diversity of nuanced research approaches that have proliferated in recent decades (Hart, 2013), Robottom and Hart’s dichotomies are still useful in identifying the essential foundations for this research study. In seeking to understand adolescents’ place perceptions and conceptions and engagement with their local places, this research is not pursuing causation in a scientific tradition, instead young people individually and collectively construct meaning following an interpretative tradition, as will be elaborated upon later in this section. A clear
alignment with either a quantitative or qualitative mode of inquiry however is not a characteristic of this study, as a mixture of these techniques is used as will now be discussed.

Historically research followed either a quantitative or a qualitative paradigm, each methodology viewed as incompatible with the other and the differences often heatedly contested (Hart, 2013). The advent of a hybrid or mixed approach, originally as a triangulation strategy, arose in the 1970s (Denzin, 2009). Since then a mixed methodology approach has become increasingly more prevalent, particularly in the social sciences, combining the best of both quantitative and qualitative approaches (Creswell, 2003).

Quantitative research tends to follow a positivist, scientific style of investigation incorporating mathematical/statistical measurements aligned to hypothesis, cause and effect, testing (Ary, Jacobs, & Sorensen, 2010; McKenzie, Usher, & Powell, 1997; Somekh & Lewin, 2005), while qualitative research is characterised as focusing on emerging social realities through subjective/ interpretative investigations that generate rich descriptive findings (Ary et al., 2010; Somekh & Lewin, 2005). There has been much debate in the research community over the years about the various merits of qualitative and quantitative research methodologies (McKenzie et al., 1997; Strauss & Corbin, 1998). Diametrically opposite positions about the two approaches were common during the 1980s’ “paradigm wars” (Hart, 2013, p. 507) and although there is greater recognition of inherent advantages and disadvantages in either approach, the discourse continues today (Smith, 2012). Basically quantitative research proponents view this methodology as ‘proper’ scientific research with analysis presented numerically and therefore with validity and clarity, while viewing qualitative research as “shallow” in data collection and findings (Strauss & Corbin, 1998, p. 28). On the other hand qualitative research advocates argue that qualitative research enables insights into the complexities and intricacies of experiences and perceptions that would not be gained through controlled quantitative approaches (Ary et al., 2010; Strauss & Corbin, 1998). Each paradigm has value and advantages, so combining the approaches from both paradigms into a mixed methodology has become increasingly attractive to many researchers (Ary et al., 2010).

Concerns have been raised however regarding the suitability of combining both qualitative and quantitative strategies within the one study; that in combining these two different philosophical stances regarding the methodological approach, quality will be lost in blending

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Smith (2012) notes inconsistencies in definitions and terminologies related to what she terms ‘multiple methodologies’. In this study I use the common term ‘mixed methods’ and extending from Smith ‘mixed methodologies’ to describe the methodology used in this research that combines qualitative and quantitative data collection methods.
the different approaches (see for example Castellan, 2010, for a review of the different methodologies). Despite this many scholars pose a mixed methodology as more advantageous with results from one approach complementing and completing the other to gain a more complex understanding of the phenomena under investigation (Creswell, 2003; Greene, Kreider, & Mayer, 2005). Mixed methodology proponents argue that combining the advantages of both qualitative and quantitative approaches into a mixed methodology builds a more complete methodology; by combining the discerning of contextual meaning through qualitative means and inferring causation connections quantitatively, (Castellan, 2010; Greene et al., 2005; Smith, 2012). Smith’s contention that employing a mixed methodological approach results in “a more complete and nuanced understanding” of the phenomenon under investigation is a convincing argument for employing a mixed methodology to inquire into the places that matter to adolescents in this study (2012, p. 472).

The benefits of employing a mixed methodology for this research are demonstrated in a study akin to this research: Hillcoat, Forge, Fien and Baker (1995) conceived that a quantitative survey was the best strategy for investigating Australian and Asian adolescents’ environmental knowledge, concerns and attitudes, followed up by some focus groups in recognition that they “may miss some of the subtleties and complexities that underlie environmental knowledge and behaviour” (p. 160). However they realised that the focus groups were best positioned to inform the survey construction and elevated the profile of these within the study to more effectively combine the qualitative and quantitative techniques, arguing that the survey design was more valuable when “informed by the respondents' views of the world and the language they use to represent their worlds” (p. 162). Consequently they revised their methodology to incorporate focus group activities in conjunction with the questionnaire instrument for developing complementary, rich findings. Accordingly this methodological approach, taken by well-regarded researchers focused on a related inquiry, has informed my choice of using a mixed methodology and the methods employed.

This inquiry is aimed at understanding adolescents’ perspectives and conceptions about everyday places and the nearby nature they engage with and that matters to them. Unlike much of the research in relation to student thinking related to the natural environment quantifies adolescents’ knowledge, attitudes or values, or explores the epistemological issues around this student thinking (Hart & Nolan, 1999), this study is focused on the ontological dimensions of young peoples’ lived experiences of their valued places and nature; a more complex and less defined focus than measuring knowledge, attitudes or values. Pragmatically then it makes sense to employ a methodology advanced as a more effective strategy for enhancing understanding of complexities. Thus following a mixed methods paradigm is an
appropriate strategy in that it will facilitate this research inquiry into the complexities and contextuality of adolescents’ local place engagements (Creswell, 2003; Dillon & Wals, 2006; Smith, 2012; Somekh & Lewin, 2005).

A mixed methodology also complements the underpinning constructivist foundation of place as the focus for this research, as I discuss in the following section.

**Searching for meaning through social constructivism**

In Chapters Two (Literature Review) and Three (Theoretical Framework) I defined place as a relational construct. Constructivism, how the young researchers in this study interpret the positioning of particular places in their lives is therefore at the foundation of this research; with the collaborative efforts of the research team combining to socially construct conceptualisations of adolescents’ valued places. This approach also aligns nicely with the ‘child-frame’ methodology applied in this study that will be explained in the following section. Research activities with and by adolescent co-researchers in the study that illuminate insights into the realities of their lived experience of local and valued places enables authentic meaning to emerge - through the individual adolescent researchers’ lived experiences and through the collaborative interrogation of the data, such that knowledge and meaning is socially constructed in the interpretivist tradition (Creswell, 2003; Denzin, 2009; Hart & Nolan, 1999).

This emphasis on the collaborative identification of adolescent valued places is not to discount the importance of the influence of the physical dimensions of place on the young people’s place making. The individual adolescent researchers’ significant places are conceived through both material and social encounters with their environments where all entities – human, other life and inorganic elements – have a role in constituting ‘place’. Such a materialist perspective (see for example Bennett, 2010; Rautio, 2013) resonates with the theoretical framework for this study that recognises the role of the physical environment in adolescents’ place relationships by incorporating Bronfenbrenner’s social ecological systems theory (1977, 1979, 1993, 1995) and Gibson’s theory of place affordance (2000), as discussed in Chapter Three (Theoretical Framework). As the ‘new materialists’ such as Bennett have posed, all matter/material has “lively powers” (2010, p. vii) that shape the interactions of the world. Thus social constructivism is a cornerstone of this collaborative research methodology towards uncovering place meaning, within which is nested the social and material place-making encounters of the participant adolescents. Using a social constructivist research methodology for the study facilitates and empowers the young researchers to interpret and construct their place relationships analysis but preferencing of this does not discount the influence of the
more than human elements of their environments; rather it is a strategic approach to elicit the participation of the adolescent co-researchers.

Within the social constructivist tradition there are a range of related methodologies and methods - ethnography, phenomenology, naturalistic inquiry and case study research - that inform this research and are elaborated upon in Section Two (Research Methodology). This alignment of social constructivist techniques with the research activities confirms that the foundations of this research are based in constructivism.

Positioning this research study as a mixed methodology to elicit socially constructed understandings about places that matter to adolescents clearly categorises the study within the general interpretive tradition (as opposed to the other traditions of positivist or critical) following environmental education research classifications developed by Robottom and Hart (1993) and Dillon and Wals (2006). A more recent classification of environmental education research by Wals and Dillon (2013) divides environmental education research into conventional and postnormal. This inquiry would be identified under their classification system as postnormal, in that it involves “socioconstructivism” (Wals & Dillon, 2006, p259) with the shared creation of knowledge by the research team involving more than observation and participant contribution, to actively engage adolescents to go beyond the role of passive subjects into that of active researchers within a ‘child-framed’ methodology (Barratt Hacking et al., 2013), as is described in the following section.

Section summary

This chapter section positions the research study as underpinned by social constructivism within a mixed methodology paradigm as an appropriate strategy to elicit understanding of adolescents’ perceptions and experiences of place. I now turn to discussing the ‘child-framed’ phenomenological research methodology.

Section Two: Research Methodology

In this section I describe and discuss the overarching methodology of phenomenology that is employed in this study of the place perceptions of adolescents, and the complementary ‘child-framed’ methodology that co-opts adolescents as research partners.
The keystone of this research methodology is collaborative research with young people that has been denoted by Barratt Hacking, Cutter-Mackenzie and Barratt (2013) as a ‘child-framed’ research approach. This ‘child-framed’ methodology provides the framework for enabling adolescent participants to become active research partners in the study, contributing to the research design and undertaking research activities. Phenomenology is the ‘process’ methodology of the study focused on exploring adolescent perceptions of place, in particular the perceptions of young people from three school communities or ‘cases’.

The connections between the methodologies of phenomenology and ‘child-framing’ in this study are depicted in Figure 4.1, presenting the ‘child-framing’ methodology nested within the phenomenology methodology. This visualisation describes the overarching phenomenological framing of the research as focused on adolescent perceptions related to their experiences of their valued, everyday and natural places. Within this mode of inquiry a ‘child-framed’ methodology is employed for adolescent involvement in the development and research activities eliciting authentic researcher roles for some of the adolescent participants within the study.

![Figure 4.1: The research methodology for this study of ‘child-framed’ research within a phenomenological tradition.](image-url)
A visual summary of the connected research methodologies of ‘child-framed’ research and phenomenology is shown in Figure 4.1. The application of these methodologies in this research study is now detailed in the following.

**Based in phenomenology**

Hart (2013) postulates interpretative methodologies such as ethnography, phenomenology and narrative inquiry as appropriate methodologies for accessing the insiders’ perspective in research. Phenomenology as research that explores the phenomenon of lived experience from the insider’s perspective (in contrast to an ethnographic cultural immersion and observation approach or collection of narrations of experience), is synergistic with this inquiry into adolescents’ experience of place (Ary et al., 2010; Creswell, 2003; Titchen & Hobson, 2005). Phenomenology emerged as a research methodology in the early 1900s with Husserl’s rejection of positivist approaches in favour of descriptions of phenomena (von Hermann, 2013). Heidegger, a former student of Husserl, extended phenomenology to include existential perspectives beyond Husserl’s more objective, descriptive methods; an interpretative or ‘hermeneutic’ phenomenology (von Hermann, 2013) that aligns with the constructivist/interpretative nature of this research into adolescents ways of being in place.

As an adult researcher I can never truly ‘be’ (in the Heideggerian sense) part of the phenomenon of adolescents’ lived experiences of their everyday and valued places (Titchen & Hobson, 2005; Wattchow & Brown, 2011), no matter how completely I was able to immerse myself in the ‘culture’ of adolescence – ethically and pragmatically this is just not possible. Instead co-opting teenagers to become researchers in the study enables access to both the foreground and the background of the phenomenon - the direct, conscious experiences of place through their data collection and the indirect meanings that emerge through collaborative reflection and interrogation of the young people’s place data and storytelling, situating this research firmly within phenomenology (Titchen & Hobson, 2005). As an experienced teacher and as a mother I can contribute my observations and insights to the research activities but I can never be an insider of the places in a teen world. Therefore the methodological approach of this study naturally aligns as phenomenological study, with the identified research focus on adolescents’ perceptions of their lived experiences of valued places; that is, a phenomenological methodology is an appropriately aligned approach with my focus through the research questions on adolescent perceptions of their place experiences.
This research is fundamentally phenomenological because it is aimed at “getting inside personal” ways of knowing. (Hart, 2013, p. 508).

This research study also purposefully goes beyond just observing and describing the phenomenon of adolescents’ lived experience of place. Instead the phenomenological methodology is married with a ‘child-framed’ approach where the young participants become more than just subjects of the research, as is explained in the following.

A ‘Child-framed’ Research Methodology

Integral to this research inquiry is the emerging ‘child-framed’ or ‘children-as-researchers’ research methodology (Barratt Hacking et al., 2013) that places young people at the centre of this research about their lives.

Participatory approaches in education are viewed as a valuable way of developing knowledge and skills and as such are suited to both educational and research outcomes (Reid, Jensen, Nikel, & Simovska, 2008). Another outcome of participatory approaches is the capacity building of individuals and groups that develops with participants’ empowerment in a participatory project/process through co-creation of knowledge, project direction and action (Öhman & Öhman, 2012; Reid et al., 2008; Sauvé & Godmaire, 2004). Le Grange (2009) maintains that genuine participation is in fact essential when working with people in other contexts. Even the general context of this research - the territory of adolescence – is another context when viewed from my lifeworld of a middle-years adult.

Young people/child-participatory research as a methodology has been gathering support over the last decade as a valuable method of accessing student perspectives or ‘voices’ (Barratt Hacking et al., 2007a; Cutter-Mackenzie, 2007b; Loughland et al., 2002; Loughland et al., 2003). Capturing the student voice is crucial in this research study as this directly addresses the study research questions and targets the issue of the student voice being largely missing from environmental education research (Hart & Nolan, 1999; Payne, 1998; Rickinson, 2001; Rickinson et al., 2009; Titman, 1994).

The student voice is predominantly missing in most research in child-based settings where the children are observed and their actions ‘translated’ by the (adult) researchers (Barratt Hacking et al., 2013). In reality, adult researchers do not, and really cannot, truly comprehend the world as experienced by young people (Kellett, 2005; Thompson, 2007). Accordingly many scholars advocate for asking young people about their lives, thereby eliminating the influence of the familiar adult assumptions and stereotypes of adolescent lives; that is, making use of
the young peoples’ voices (see Lesko, 2012; Wyn & White, 1997). This accords with the recent emergence of formal and informal recognition of children’s rights (Gabhainn et al., 2007; UN, 1989), such that researchers in recent years have increasingly been acknowledging children’s right to take a valued and empowered role in investigating child-based matters, and in doing so, bringing their ‘insiders’ understandings to the research (Barratt Hacking et al., 2013; Blanchet - Cohen, 2008; Graham, Powell, Taylor, Anderson, & Fitzgerald, 2013; Kellett, 2005; Woodhead & Faulkner, 2008).

Hart’s seminal “Ladder of Participation” (1992, p. 8) has provided a basis for guiding participation activities with children, promoting meaningful (as opposed to token or decorative) roles for children. However the role of young people in research has remained predominantly passive (Barratt Hacking et al., 2013) indicating that new approaches and techniques are needed to access young peoples’ insider perspective. Barratt Hacking et al.’s application of Hart’s participation ladder to research situations is an innovative new direction for research. This accords with Lewis and Lindsay’s claim that:

Researchers need to give some thought to ways in which innovatory methods of social investigation can be developed and used with children so as to gain access to children’s perspectives of the worlds in which they live and work (2000, p. xv).

Customary approaches separate the researcher from the researched whereas active participation requires the barriers between the researchers and subjects to erode (Prosser & Loxley, 2008); not a common or simple process, particularly between adult researchers and child participants. Therefore empowering children in research activities, particularly across contexts, requires techniques for enabling more meaningful participation for young people, and to this end Barratt Hacking, Cutter-Mackenzie and Barratt have proposed a ‘child-framed’ methodology for research with and by children contrasting with research on children (2013).

This proposed ‘child-framed’ methodology is a research process that is structured to support young people’s agency within the research, to facilitate their involvement as partners in the research process with power to influence research activities and decisions, as co-constructors of research findings going beyond a role in just data collection (Barratt Hacking et al., 2007a; Barratt Hacking, Scott, & Barratt, 2007b; Barratt & Barratt Hacking, 2008; Cutter-Mackenzie, 2007a; Cutter-Mackenzie, Edwards, & Widdop Quinton, 2015; Kellett, Forrest, Dent, & Ward, 2004). This methodology advances a cyclic research process of collaboratively checking and revisiting findings with regular referencing to the research objectives. This is within a young person-supportive framework that specifies an ethical and respectful approach with attention to the development of collegial relationships between adults and young people of the team,
and adequate time allocated for skills and findings to be developed (Barratt Hacking et al., 2013).

This ‘child-framed’ research methodology resonates with a deconstructionist approach that seeks to erase binary opposites (Burman & MacLure, 2005) – the ‘child-framed’ approach reduces the privileging of the researcher and academic theorising versus the subject and field realities of the young person’s world, creating space to allow meaning and reality to be revealed.

Co-opting young people as active researchers is not without critics however, such as Fleer and Quinones (2009) who argue that by focusing on just a young person’s perspective in the research excludes other perspectives (e.g. parents and teachers) that can add meaning to research inquires. The young people in this study are not young children but adolescents, able to comprehend, apply, analyse, evaluate and synthesise, working across all Bloom’s cognitive domains (1956), so concentrating on just the young person’s perspective in this research study is appropriate, targets the research questions and is not a form of “ventriloquism” (Fleer & Quinones, 2009, p. 89). Although my contextual field observations and contributions to the research team activities are able to add meaning from a teacher and parent’s perspective, as this research study is not purely by the young people, rather it is conducted with the young people (Barratt Hacking et al., 2013). Pragmatically the study is an adult-guided inquiry, with procedures such as the proposal and ethical approvals necessitating adult input and framing, consistent with the “Adult-initiated, shared decisions with young people” classification within Barratt Hacking, Cutter-Mackenzie and Barratt’s ‘child-framed’ methodology (2013, p. 442). The validity of this position is supported by Hart who acknowledges in his reflections on his ‘Ladder of Participation’ that young people generally require some adult guidance (2008b).

Thus the role of the young people in this research is essential to the methodology of the study which is founded on exploring young people’s perspectives of the everyday places and nearby nature they prefer and engage with by aligning with the ‘child-framed’ methodological approach following a predominantly phenomenological tradition.

Applying a ‘child-framed’ methodology dissolves boundaries between data collection and data analysis activities as well as between the researcher and the researched, creating a dynamic, integrated methodology as I now describe.
Interwoven methods

Adopting a ‘child-framed’ methodology means going beyond just incorporating young peoples’ observations and responses to questions to a collegial research journey undertaken with adolescent researchers; partnering and collaborating with them in this inquiry. As a result of this co-construction of the research, the progress of the research activities is not a clearly defined, linear pathway. Instead the adolescent researchers, although adult-guided in the process, help decide on research directions and processes emerge through negotiation within the research team (Barratt et al., 2005). This accords with the identification by Wals and Dillon (2013) of a co-creation research approach, as an example of what they term postnormal research, that is characterised by elements of unpredictability and uncertainty.

In addition, following the ‘child-framed’ methodology recommendations of Barratt Hacking et al. (2013) to take time and allow for cycling of research activities, means there is an intertwining of data collection and data analysis methods occurring. Compounding this convoluted research journey with the adolescent researchers are the ongoing impacts of my own reflections and analyses that arise as a result of managing the logistics of the research activities in the three school sites (themselves entwined time wise), participating in team research activities, listening to meeting recordings and undertaking transcriptions of these. There are in effect three strands of research activities continually overlapping and intertwining – the data collection actions (photos, photo commentaries, meetings and finally the survey); the cyclic revisiting, reviewing, interpreting and analysing the data; and the emergence of ideas and trends through the ongoing internal processing of and reflecting on the research activities (constant comparatives in the style of Glaser, 1965), as represented in Figure 4.2. An example of this evolving intertwined data collection, analysis and writing in the research journey is the introduction of the use of ‘valued’ as descriptor for places. Descriptors of ‘important’ or ‘significant’ were used in early meetings but were viewed with concern by the research team as intimidatingly serious when designing the survey, until referencing Mannion et al.’s (2007) work where the term ‘valued’ was used. On consideration this then became the adolescent researchers’ preferred place descriptor used in the research activities.
The interwoven, integration of concurrent collection and analysis methods is depicted in Figure 4.2 as entwined strands. In reality the entwining is more complex. If these three intertwined strands of research activities could be shown following a labyrinth-like Celtic knot (such as the one shown in the Prologue), twisting and turning along a pathway that does eventually reach an ending; and along the way intersecting with the ‘spaces between’ of method considerations of authenticity, trustworthiness and ethics (Hart, 2002b) that impact on the research journey, then the reality of this research could be portrayed. As Lofland, Snow, Anderson and Lofland maintain, and as shown in Figure 4.2, the reality of field study research is “complex overlapping and interweaving” (2006, p. 1).

That the following sections on data collection and data analysis are presented in the traditional sequencing is to allow identifiable stages of the research journey to be discussed, not a representation of rigid, sequential research steps undertaken.

Section summary

The chapter section describes and explains the research methodology for the study as a ‘child-framed’ methodology within an overarching phenomenological research methodology, where adolescents are co-opted as the ‘expert’ partners in this research to gain an understanding of their insider perspective of young people’s perspectives of lived experiences of place. Framing the research around enabling adolescents as researchers gives them agency and voice in the research, creating a dynamic interweaving of data collection and analysis to generate authentic understandings of adolescents’ valued places.

The specific data collection methods employed under this methodological approach are now detailed in the following section.
Section Three: Data Collection

This data collection chapter section initially introduces the background to the collection methods. Then an outline of the phases of data collection and descriptions of entering the research field and of the participants contextualise the data collection. What then follows is a detailing of the specific data collection methods of (1) ‘photovoice’ activities (photo collection and Facebook posting); (2) ‘Think Tank’ research group meetings or focus group; and (3) a broadening online survey. The data collection section concludes with consideration of the impact of ethical principles, authenticity, trustworthiness, and problems associated with the data collection activities.

Introduction to the data collection activities

Within the mixed methodology of this study there is a heavy reliance on exploratory qualitative-style activities over a period of time with a small number of adolescent co-researchers. The initial phases of the research involving intensive consultation with the adolescent participant researchers, supplemented with open-ended questions within the final stage survey, as predominantly qualitative techniques are more suited to research such as this into a little known phenomena (Creswell, 2003; Rickinson et al., 2009). The final research phase of the online survey incorporates quantitative elements broadens the scope of the research and enables extending the inquiry to a greater number of participants. This arrangement of qualitative, in-depth research activities followed by a more quantitative survey is the opposite to the more frequently used scoping survey followed by qualitative interviews or focus groups (see for example initial research design of the study referred to earlier by Hillcoat et al., 1995). However there is no set format for mixed methods research, with the key criteria being that the design fits the inquiry (Greene et al., 2005). The research design used here, of initial qualitative research activities undertaken with adolescent co-researchers to capture and interrogate adolescents’ place-based preferences and engagement conceptualisations, which in turn informs the design of a questionnaire that both broadens the research to include a greater number of participants, and builds on trend identification from the qualitative phases of the research, is a structure suited to the research questions.

The strength of this mixed methods approach is that a deep understanding of a group of adolescents’ conceptualisations related to their valued places is developed through the qualitative research techniques and then these understandings are checked by surveying a larger participant group. There is however a weakness in this research strategy – that the organisational requirements of the intensive qualitative research activities limit the study to
drawing participants from only three schools (as outlined in the following data collection information), so any trends and patterns of meaning in the findings cannot be considered as more generally applicable but more as a ‘snapshot’ view of the places that matter to the sampled adolescents. Despite this weakness in the study, it still has value by gaining authentic student ‘voice’ about the little known area of young peoples’ perceptions of their relationships with their local and valued places.

This research study also has elements of a case study research design as a longer term, in-depth, descriptive study of young people’s relationships with the places and spaces they engage with in their lives through the cases of three school populations (de Vaus, 2001; Stark & Torrance, 2005). The research is a rich exploration of three case-based constructions of insider perceptions and conceptions of adolescents’ valued places.

In keeping with the ‘child-framed’ methodology proposed by Barratt Hacking et al. that underpins this research (2013), three phases of research over a 12 - 15 month period were undertaken to enable productive relationships and research skills to develop within the youth research team members, and to allow time for research processes and findings to emerge.

I now turn to exploring the three phases of research activities in the study.

**Research phases**

The data collection activities for this study were undertaken in three phases: Phase 1 – ‘photovoice’ activities; Phase 2 – periodic face-to-face ‘Think Tank’ meetings; and Phase 3 – a broadcast survey, as detailed in the following listing:

1. **Research Phase 1 – ‘Photovoice’ activities**

   The adolescent co-researchers undertook a photographic survey of their valued places and nearby nature, documenting their place-based lived experiences using digital cameras and phone cameras. The photo collections occurred throughout an extended (nine month) data collection phase with the Melbourne adolescent researchers and over an intense two-day period with the young researchers in India. Photo collection occurred spontaneously as part of everyday activities, or was prompted by meetings and reminders. The Melbourne situated researchers also periodically shared and commented on place photos via a private, social networking group site (Facebook).
2. **Research Phase 2 - Think Tank research group meetings**

Periodic face-to-face research team meetings – Think Tanks – occurred in the different participating school ‘cases’ over a six month period to interpret and explain the photographs individuals had taken; collect additional photos around the school; share and discuss place-related stories; identify and clarify common themes; and, in the case of the Melbourne research teams, design the Phase 3 survey instrument. These sessions (eight in total) were recorded and conversations transcribed for systematic analysis.

3. **Research Phase 3 – Broadcast, anonymous online survey**

After approximately nine months of Phase 1 and 2 research activities the anonymous online survey designed by the Melbourne-based research teams was distributed to all the participating Melbourne schools’ student population. The survey was live for six months, although most responses were contributed in the first month the survey was made available online.

Research Phases 1 and 2 overlapped following the iterative pattern recommended for a ‘child-framed’ methodology (Barratt Hacking et al., 2013). The first two phases were conducted in all three school ‘cases’ – two Melbourne schools and one village school in the remote Eastern Himalayan region of India. Logistically extended research activities with the young researchers in India was beyond the scope of this study. The Phase 1 and 2 activities took place in India over a two-day period, whereas Phase 1 and 2 activities continued periodically over a nine-month period with the two groups of Melbourne researchers (Think Tanks conducted spanned a six month period within this time frame). The young researchers in India were not able to participate in Phase 3 research activities due to the lack of internet access in their remote in their remote Eastern Himalayan village in India that prohibited their participation in the online survey. So Research Phase 2 was limited to the two Melbourne schools.

Loftland, Snow, Anderson and Lofland (2006) identify field study data source types as direct experience, observable social action, conversations, and supplementary data of archival records and physical traces of activity. The data sources generated through the various collection methods of the three research phases of this study are summarised and categorised after Loftland et al. (2006) in Table 4.1.
From Table 4.1 it can be seen that the role of the adolescent researchers was essential to this research study. Each of the data collection phases is presented and discussed in more detail after the following explanations of gaining access to the research sites (schools) and the recruitment of the prerequisite adolescent researchers from the schools. Accordingly I now turn to describing the processes involved with gaining entry to the three field study sites, that is the three participant schools.

**Entry into the Field**

**Selection of field study (school) sites**

This social science fieldwork study was targeted towards gathering information about the reality of the phenomenon of adolescents’ relationships and interactions with local places including their nearby nature. As a mixed methods study it was not aimed at statistically representative sampling in the quantitative tradition but at strategically selected case
‘snapshots’ - a purposeful, non-statistical type of sampling to gain an understanding into the phenomenon (Babbie, 2007; de Vaus, 2001; Lofland et al., 2006). The study sample was not meant to represent the whole population of adolescents in Australia or India as this study is not aiming to illuminate any probability-style generalisations or uncover theories, instead it aims for revealing indicative trends about the little researched phenomenon of adolescents’ intimate place-based interactions. Accordingly three field sites (schools) were selected as strategic ‘snapshot’ samples.

The study sites selected were a renowned environmental/sustainability school (Green School)11; a conservative, traditional, affluent minority type of school (Blue School); both of which are situated within the same cultural and geographic context (Melbourne); then a school situated in a vastly different cultural and geographic context (India School)12. All situations were familiar to the researcher in keeping with de Vaus’ (2001) recommendation that research cases are selected to provide sampling variety as opposed to being randomly selected. Accordingly the research sites were very different in terms of both cultural and educational contexts. Investigating three differing field sites is also a strategy for collecting the “richest possible data” (Lofland et al., 2006, p. 15) within the constraints of time and resources availability. Actively selecting schools of a known quality also had pragmatic benefits for gaining entry into these field study sites, as I was able to access my personal networks and connections as an effective strategy to smooth my entry into the field (Lofland et al., 2006); leveraging off my relationships with the decision-makers in each situation to gain, initially, permission to conduct the research and then support of their staff to facilitate communications and manage meeting logistics.

**Research phase 1 and 2 field entry**

Phase 1 (‘photovoice’ activities) and 2 (Think Tank research group meetings) both involved direct contact with adolescents in the schools. These two research phases overlapped and intertwined so that field entry for these two phases of research activities occurred concurrently, as is described here.

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11 All names (schools and participants) have been assigned pseudonyms.
12 A second village school in India was approved to participate in the study but when I arrived at the school there were no adolescents attending on the days I visited. Apparently I had missed them by a week, as they were involved in other activities on the other side of the valley when my scheduled visit occurred. The primary aged children were still at the school so I enjoyed a lovely experience working with the students, teachers and parents on the days I was in the village as a volunteer educator but disappointingly no research activities were undertaken in the second village.
In each school a teacher was nominated as my conduit for communications with students, so these school representatives facilitated my initial contact with students by broadcasting an invitation to participate in the research study via their school communication processes (newsletters, daily announcements, assembly presentations, etc.)\(^{13}\). Once parental/guardian and student written permission (via a consent form) to participate in the research had been granted, and personal contact details shared, then direct communications between the researcher and the adolescent participants was possible. The liaison teachers still maintained their involvement over the period of field study activities; facilitating communications with other teachers and administrators to arrange suitable times and places for the Think Tank meetings, and the eventual distribution of the online survey of Research Phase 3 to the broader audience of the Melbourne schools’ student body.

In this sustained field study maintaining productive relationships with both my adolescent co-researchers and their gatekeepers (liaison teachers and the students’ class teachers) was vital (Lofland et al., 2006). I followed recommended quality research approaches that respect people’s wellbeing, dignity and rights (Graham et al., 2013; Lofland et al., 2006) in all interactions with the young people and their teachers. Additionally small tokens of appreciation - refreshments supplied at meetings and thank you gifts of movie tickets and chocolates (where appropriate) - also encouraged sustained and productive field relationships, as seen by the young researchers’ conscientious meeting attendance (and decisions for more meetings than originally anticipated), and class time commandeered by supportive teachers for students to undertake the online survey.

The young participants in all research phases in the study were not screened or selected in any way. They volunteered to participate in the Phase 1 and 2 research activities after receiving a written invitation (in English and Hindi as appropriate to the school culture) to take part in the research activities. I also introduced the research project to the target student body in each school through a brief verbal introduction/explanation following the suggestion of the liaison teachers in the schools. The head teacher and accompanying translator/guide also translated my introduction/explanation for the students in India. The students then indicated their willingness to be involved by arranging for the completion of the research study consent forms, ensuring that their parent/guardian also competed the form and this was returned to the school administrators for collection by the researcher. The Melbourne situated participants also gave another level of consent in electing to join the study’s online social networking (Facebook) site, after gaining permission to join the research team.

\(^{13}\) All research tools, including the invitation to join the research study, are included in the Appendices.
Research phase 3 field entry

It will be recalled that the field study village in India had no internet access\textsuperscript{14} so the Phase 3 online survey was only administered in Melbourne. The research study liaison teacher within each of the Melbourne schools introduced this Phase 3 research activity to the field. The adolescent co-researchers also played a role in introducing the Phase 3 survey activity to their school community, promoting this through normal school communication strategies such as newsletter inclusions and assembly presentations, as appropriate. The majority of adolescent research partners took ownership of introducing the Phase 3 survey activity into their school, in accordance with a ‘child-framed’ methodology as the on-site researchers. The adolescent researchers and the liaison teachers effected an invitation to all adolescents within each of the school sites to undertake the online survey on their personal computing devices (all students in the Melbourne schools have a laptop or ipad) during a more informal session (such as a pastoral care group time or flexible learning time in class) or at home. The survey was anonymous and so participation was totally private and voluntary.

In the following chapter, Chapter Five - Context of the study: the research schools, I describe the field study sites the adolescent participants are drawn from to contextualise the research before presenting the findings but now, continuing on with positioning the data collection activities, I direct attention to describing the adolescents who participated in the research activities.

Participants

Research Phase 1 and 2 participants

As will be recalled from the previous entry into the field discussion, the Phase 1 and 2 research activities were interconnected and involved the same group of participants. Equal numbers of males and females were invited to participate in these research phases but there were slightly more females than males that volunteered for the research activities as can been seen from the participation numbers in Table 4.2.

\textsuperscript{14} Even postal services to the village in India were rudimentary so a paper-based version of the survey was logistically not possible. The issue of finding a suitable language appropriate to the mix of Nepali, Hindu and English used in the school, also complicated the difficulties of administering a paper survey in India. Basically the addition of the Phase 3 survey activity for the school in India was beyond the scope of this study.
As can be seen from Table 4.2 the Research Phase 1 and 2 participants’ ages ranged from 13 – 17 years, consistent with ages of most secondary (high) school students at the junior and middle levels. The cohort of adolescent researchers from the Green School were younger than most of the other young researchers – all of these adolescents were Year 8 students (second year junior high) in the Victorian school system at the commencement of the research. Three of the Blue School group commenced the research when they were in Year 10 (second year of middle high school) while the remaining student was from Year 8. Secondary schools in the Victorian state of Australia cover Years 7 – 12, with attendance compulsory for Years 7 - 10. All the India School participants (aged between 15 – 17) were from the village high school’s final year, Year 10. After this school year most students do not continue with their education, as this would require moving away from the village.

**Research Phase 3 participants**

As will be recalled, only the Green School and Blue School (Melbourne schools) participated in the Phase 3 research activity of the online survey. The numbers and genders of participants that elected to respond to the survey are shown in Table 4.3.
As can be seen from Table 4.3, the survey respondents were almost evenly distributed between the two participant schools, with 69 (49%) respondents from the Green School and 73 (51%) respondents from the Blue School.

Also evident from Table 4.3 is the gender imbalance amongst the Green School participants. The Green School tends towards more male students due to the local schooling demographics (two local girls-only schools without equivalent boys-only schools in the region). This influenced the overall male to female composition of the survey respondents as 60% males and 40% females, despite fairly gender-balanced responses from the Blue School.

Most survey participants came from a family familiar with schooling in Australia with 72% of their mothers and 71% of their fathers having grown up attending school in Australia for the majority of their education. Other family backgrounds included a large range of countries where one or both parents had attended school – for example Austria, China, India, UK, Canada and Japan.

The age range of the Phase 3 survey participants was 11 to 16 years, consistent with the Australian state of Victoria’s compulsory years of schooling (Years 7 -10). The majority of survey participants were aged 13, as can be observed from the age frequency distribution in Figure 4.3, indicating that the majority of participants were from Year 7.
The survey participants were all drawn from the schools attended by the adolescent co-researchers from Research Phase 1 and 2, that is the Green School and Blue School. Both of these schools are independent (non-government) schools that are fee paying, indicating the participants come from comfortable to well-off socio-economic backgrounds. The Blue School is situated in a very affluent, established suburb of Melbourne, while the Green School is located within a ‘green wedge’ area that borders more middle class, less-central suburbs. More detailed descriptions of these schools are supplied in Chapter Five - Context of the study: the research schools.

As indicated in the explanation of this study’s Research Phases these did not progress in a linear fashion, particularly Phases 1 and 2, instead the research activities were interconnected. For clarity of this discussion however, the data collection methods in the three research phases will now be presented in numerical order, commencing with the Phase 1, ‘photovoice’ data collection activities.

*Data Collection Phase 1 – ‘Photovoice’ activities*

Scholarly literature is rich with the use of people’s photographs as a primary data source in exploring their relationship to places, including some with young people exploring their
connections to their everyday places and nearby nature (see for example Castonguay & Jutras, 2009; Leonard & McKnight, 2014; Morrow, 2007; Owens & McKinnon, 2009; Tupper, Carson, Johnson, & Mangat, 2008). The approach taken in this phase of the study is similar to a recent international study investigating the places and spaces young children engage with (see Cutter-Mackenzie, 2014, in progress) where the child researchers already have or are provided with a common research tool - a simple digital camera. Using cameras is a popular and accessible research tool in a 'child-framed' methodology that enables the participants to select the data (photos) to be collected; this has been termed ‘photovoice’ by many researchers (see for example Kofkin Rudkin & Davis, 2007). Using a ‘photovoice’ method is seen as an easily mastered research skill and an empowering /democratic means of enabling authentic representation of participants’ perceptions (Kofkin Rudkin & Davis, 2007; Prosser & Loxley, 2008). This was an important consideration in working with the young people and particularly the young people in India, as in this instance the research time constraints and language differences posed a barrier to enabling genuine and empowered co-creation of the research. With all the young researchers in the Phase 1 activities using visual methods to record their interactions with their valued places, this shifted modality to provide insider-centred constructs of reality different to that generated just through conversations, making visible aspects of young people’s interaction with places that as an unrelated adult I have no access to (Prosser & Loxley, 2008). However Leonard and McKnight (2014) argue that although photo elucidation dissolves the barrier between the researcher and researched, reality is not necessarily captured, instead it is the subjective perceptions captured through the photos. Notwithstanding their concerns about subjective realities, Leonard and McKnight (2014) do join the many researchers before them that value young people’s photo journaling as enabling a view into the adolescent worldview.

To enable a view of the world from the adolescent researchers’ perspective, I planned the Phase 1 research activities as a sustained inquiry into their lived experiences place that was something more than just asking them to take some photos – I wanted to journey alongside them in their experiences of places along the lines of Hart’s place expeditions with children (1979) that have inspired and informed many researchers over the years. To do this the ‘photovoice’ method in Phase 1 of this study extended into using a private Facebook group with the Melbourne schools, to capture over time the adolescent researchers lived place experiences through a modern young person’s communication medium. Through the Place Matters Facebook groups (one per school)15 the research teams were able to post photos and

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15 Refer to the Appendix I for examples of the research team Facebook activities.
comments anytime, anywhere; making the research activities easily accessible for the Melbourne adolescent, and promoting a sustained engagement with the ‘photovoice’ activities. (As mentioned previously the remote village lifestyle of the adolescents in India did not permit their involvement in this aspect of the research.) Although not physically journeying with the young people as Hart did, Facebook enabled me to regularly interact with and quickly respond to my adolescent co-researchers as they shared photos and responded to questions and comments about their lived experiences of place. Facilitating the Phase 1 research activities through Facebook was a means of connecting with the young co-researchers through a communication tool that is familiar, if not integral to their lives. As their lives, and increasingly everyone’s lives, are becoming more screen and electronic-communications mediated in our everyday interactions, it is appropriate to incorporate this type of communication into the research methods (Lofland et al., 2006; Prosser & Loxley, 2008).

This research study was originally conceived as just a two school, Melbourne-based study. In keeping with Creswell’s (2003) position that qualitative research methods emerge over time, both the inclusion of the participants from India and the electronically-mediated research team communications through Facebook evolved in response to opportunities and experience. Designing the research to capitalise on opportunities meant that the Phase 1 research activities were modified to suit either a Melbourne or India context. These Phase 1 variations are outlined in the following, commencing with the Melbourne schools.

**Research Phase 1 in the Melbourne Schools**

A recent survey of 13-17 year olds in the USA found that 75% were on Facebook (Rideout, 2012). In a survey of similarly aged young people in Australia results ranged from 62% (12-13 year olds) to 92% (16-17 year olds) that use social networks, with their preference nominated as Facebook (Australian Communications and Media Authority (ACMA), 2013). Facebook mediated communications were an opportunity for connecting with adolescents that I decided to use in the research design. Recording images of daily activities and posting them online to share them with friends has become a way of life for young rich minority people. This was clearly evident to me in the recent *Triple J Hottest 100* countdown event on Australian Day in January, where there were 18,845 photos posted to the event website during its 8.5 hour duration, sharing what people around the world (parties in 87 countries registered) were doing to celebrate Australia Day while listening to the 100 top popular songs announced live (Triple J, 2014).

The Phase 1 of the research activities used this social networking behaviour evident in young people of affluent minority worlds to gather data in the form of photographs of places and
commentary about places that are important to them in their daily lives – in effect an interactive research journal recorded via contributions to the group Facebook sites. Where the young researchers uploaded photographs of places and the activities they engage in at places around school and home that they perceived as highlights and lowlights of their day, and commented on the images they and other participants have taken.

The Facebook group sites (one for each Melbourne school) were purpose-created group sites within Facebook that were closed and private with access only via invitation and no means from the group site to gain access to individuals’ personal Facebook areas. There was no intention or means for the research activities to observe the social interactions between the young people online, as their personal social spaces could not be accessed from the group site, thus protecting the young people’s privacy. The advantage of using Facebook in the research is that it is already part of the adolescents’ lives, making participating in the project easy and efficient for the young researchers when they go to a satellite site that is part of Facebook, rather than having to log into a totally separate system. Facebook also has an incorporated facility that alerts members about updates to the group site (such as when another member contributes, ‘a likes’ post, etc.), so this kept the participants engaged with the project and acted as a prompt to continue their research activities.

Documenting place interactions via the Facebook special interest group sites were planned for a three to six month period but interactions extended to nine months, with communications switching more to email in the last few months of the research activities, on the request of the students. The Facebook interactions were not as frequent as expected. That most young people turn off Facebook’s automated alert feature to avoid annoyingly frequent alerts with their large pool of contacts for all Facebook activities, may have contribute to less research activity on Facebook than hoped for. On the suggestions of the young researchers as the study progressed, emails became the preferred communication method between the Melbourne Think Tank meetings (Phase 2), as the young people indicated that they checked their school emails more regularly than the Facebook research space.

The Facebook site did enabled informal interactions between the research team – comments related to photos and ‘like’ voting for others’ images - that may not have arisen through the Think Tank meetings; and enabling a journey with the adolescents to their valued places as anticipated. The majority of photos contributed by the young researchers however were through the direct transfer of files during the Think Tank meetings, not as photo posts to the Facebook sites as predicted. The young researchers also requested school-based place photography during Think Tank meetings. This was in part a response to school imposed
restrictions on Facebook access and phones at school and in the Green School to accommodate one team member who not have a Facebook account. School-based place photography during the Think Tank research group meetings was also a reaction when the young researchers were unsure of their direction and role in the research study, in reality needing to develop their skills and confidence in the research process as advocated by Barratt Hacking, Cutter-Mackenzie and Barratt (2013).

The Facebook research team interactions in the Phase 1 data collection activities were designed to capitalise on the opportunity social networking presented. The inclusion of participants from remote India capitalised on my opportunity to visit schools in this region with a volunteer group\(^\text{16}\). Researching with the adolescents in India required some of the research methods to be modified for the logistics and context as will now be explained.

**Research Phase 1 in the school in India**

According to Lofland et al. (2006), the key to rich qualitative data collection is the active engagement of the researcher in the field. With the Melbourne research teams the research partnership and trust in the process were able to develop with time through regular engagement electronically and through a number of face-to-face meetings. Time to build relationships with the young people in India however was limited and no long-term social networking or email communications to continue the partnership were available. Despite this, inclusion of the India site was very worthwhile and the time spend working together in the field short but intensely active, building on the relationships I built as a volunteer living and working with the local students and teachers over the course of a four days in the village.

The village location for the India study site was very remote\(^\text{17}\), with access only via four-wheel drive; no shops, no regular mobile phone and internet access, and the only computers in the village were the few donated to the school by our group when we visited. In fact few modern conveniences were available and village life is very much subsistence-style.

Without the communication-mediation tool of Facebook available for the India-based young researchers to share and comment on photographs of their significant places, Phase 1 data collection activities in India were carried out through the provision of loan digital cameras. For the majority of a day the adolescent co-researchers conducted a photojournal recording of the

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\(^{16}\) Refer to Appendices F and G for background information on the Growing Through Education Foundation (GTEF) and their partners in India, HELP Tourism, who facilitated my research visit to India.

\(^{17}\) As noted earlier, a second school in India was to join the study, mirroring the two schools in Melbourne, but the research activities did not eventuate in the second school in India.
places important to them in their everyday lives. The young people in the village school are not restricted by school regulations keeping them to the school grounds, as is the case in Melbourne schools, and they were able to roam the entire village and surrounds for their photojournal research activities. The photos were transferred to my laptop onsite, so that they could then be displayed, commented on and discussed in a later Think Tank group meeting. This approach mirrors Cutter-Mackenzie’s ‘child-framed’ research methods successfully applied in culturally remote locations (2014, in progress).

Provision of the cameras transcended economic, educational, power and language barriers as this research ‘tool’ enabled the participating adolescents to readily engage in gathering the data (photos) for the places that they perceived as important in their lives (Prosser & Loxley, 2008).

The young researchers from the Melbourne (Australia) and India research sites all carried out the Phase 1 collection of photographic data, recording the places that mattered to them. The young people from the Melbourne schools worked intermittently over a number of months and with the communications assistance of Facebook and email, while the adolescents in India worked intensively, surveying the whole village and surrounds during the combined efforts of the two groups of adolescents in Melbourne.

All research teams used the photographs collected in the Phase 1 research activities as a basis for the Phase 2 – Think Tank research team meetings to explain and analyse their place preferences and interactions as will now be described in the following.

*Data Collection Phase 2 – Think Tank research team meetings*

The second phase of research activities, the Think Tank research group meetings, were face-to-face gatherings of the teams of adolescent co-researchers and myself for extended conversations about the places that they valued and how they engaged with these places, using the adolescents’ photos as prompts. In all eight Think Tank meetings took place, one during the research intensive visit to the school in India, and three meetings with the Blue School group and four meetings with the Green School research team were held periodically over a six month period. Each Think Tank group meeting produced approximately an hour of recorded conversations that were transcribed for analysis.

The Think Tank research group meeting processes were informed by narrative approaches and grounded theory. Narrative inquiry is based in storytelling to gain an understanding of lived experience (Hart, 2002b; Shacklock & Thorp, 2005). A feature of the Think Tank meetings was
the storytelling related to the photos the young researchers collected, as both an interpretative and analytical activity. With sequential Think Tanks the re-visiting of storied accounts of places enabled a deeper interrogation of the photo data to uncovering understandings about the places significant to young people and the reasons for this valuing. This emergence of meaning through the research processes borrows from grounded theory where the researcher allows trends and phenomena from the data guide the research direction and formulation of interpretative theories in a structured process; enabling the research to follow trends and themes as they arise, rather than data collection being guided by preconceived ideas and hypotheses about what the research is going to reveal. Basically in a grounded theory approach the research is ‘grounded’ in the data and “reality” is allowed to emerge (Strauss & Corbin, 1998). This Place Matters research study did not follow a grounded theory structure, so cannot be properly termed a grounded theory study. Nonetheless in enabling the young researchers during the Think Tank meetings to guide the interpretation of the data, and with my stance of being open to possibilities and not seeking to confirm predetermined outcomes and allowing meanings to emerge, this research study gestures towards a grounded theory approach. As Denzin (2009) maintains, grounded theory approaches can add value to a constructionist interpretation study, such as this one.

Think Tank face-to-face meetings of each site’s research team enabled the group members to interrogate the photo data by questioning, interpreting, commenting and storytelling about the photos contributed by members of the research team. Together the research teams constructed an understanding of what places and place-based activities matter to adolescents through interrogation of the data (Öhman & Öhman, 2012), thereby identifying themes and trends in the photographs contributed. As this understanding developed through the progression of Think Tank meetings in the Australian schools, findings were used to design the online survey to broadcast to the rest of the students in each school (Phase 3 research activity).

The Think Tank meetings incorporate focus group elements but they were more than focus groups, including activities of data collection, data analysis and research management following the ‘child-framed’ methodology of Barratt Hacking et al. (2013). In the Think Tank meetings the young people were partners in interrogating and analysing the data as well as negotiating and deciding on how the research activities progressed.

Like focus groups the Think Tank group dynamics results in more revealing conversations than would occur with one-on-one interviews (Babbie, 2007), particularly considering the disparity between myself as an older adult and my young co-researchers. Using visual research
methods, in this case photo elucidation during the Think Tank meetings, was a strategy that targeted overcoming the young people’s inhibitions instead of more traditional questioning methods (Cleland & Wyborn, 2010). The photographs provided a non-threatening access point for opening conversations about the young peoples’ personal relationships with places in their lives – the excitement and laughter related to seeing photos of themselves and their valued places displayed on the screen, particularly with the young people in India, stimulated storytelling and discussions. Iconic and/or evocative photos have been used in environmental education research studies as a tool to elicit participant discussion in the past (see for example Mannion et al., 2006). Additionally, using the photos the young researchers took themselves not only stimulated discussion but also sent a clear message that the young researchers were valued as the experts on the team (Lofland et al., 2006), and that their stories related to the photographed places were meaningful in constructing what places matter to adolescents (Denzin, 2009).

Using photos as a basis for deriving research findings is multifaceted; an approach rich with possibilities for investigation including the contexts of photo taking, photo viewing and visual/semiotic understandings, as well as use of photos for probing memories and constructing meaning (Leonard & McKnight, 2014; Prosser & Loxley, 2008). Use of the photos as a focus for Think Tank meetings also provided a mechanism for managing discussions; for keeping storytelling directed and as a means of addressing any cultural and language barriers between the adult researcher and the young co-researcher participants as the images made identification of understandings and themes more easily accessible than through just conversations.

Regular face-to-face meetings are recommended when working virtually with young people (S. Bulfin, personal communication, June 10, 2011) as was the case with the two Melbourne research teams. Regular meetings enabled the research teams to reflect on meanings and interpretation of data (Clark & Moss, 2001) and check for consistency in interpretations (Lofland et al., 2006). It will be recalled that logistics limited the India group to one Think Tank. Two Think Tanks were planned for the Melbourne schools, at midway and the end of the Phase 1 ‘photovoice’ activities. The young researchers however guided the Melbourne Think Tank scheduling to include more meetings than just two – with four Think Tanks held the Green School and three at the Blue School. This in fact follows recommendations of Barratt Hacking et al. (2013), Fleer and Quinones (2009) and Hart (2002b) for a recursive research process, assuring focus on research objectives, and breadth and depth of analysis.
The Think Tank meetings in combination with the Phase 1 ‘photovoice’ data collection enabled a sustained, collaborative and reflective inquiry into the places that matter to the adolescent co-researchers. The Think Tank findings also provided the Melbourne research teams with a useful basis for designing the subsequent Phase 3 survey (Morgan, 1993, as cited in Babbie, 2007).

I now turn to discussing and analysis the use of the online survey in Phase 3 of the research.

**Data Collection Phase 3 – online survey**

Findings from the collaborative research team efforts in the later Melbourne Think Tank meetings provided the foundation for an anonymous online survey that extended the participation from the intensive, qualitative work of the small research teams to include the wider student population in each of the Melbourne school sites. The survey introduced quantitative elements to the study to scope adolescent place preference trends with a larger group of young people (Creswell, 2003), thereby broadening and building on the understandings that emerged from the Research Phases 1 and 2.

The advantages of incorporating the survey into the methods were that it is a time and cost effective means of checking thematic findings from the Phase 1 and 2 small team research activities and extended the data collection to other participants through the anonymous online survey. An anonymous survey has no associated privacy or parental consent considerations which made the process of recruiting new participants into the study streamlined, as completing the online survey was voluntary. An anonymous survey also had the advantage of being attractive to participants as user-friendly and non-intrusive, plus responses were likely to be honest (Dillman, 2007). An online survey engaged the participants through a communication medium relevant and familiar to the young people in the same way Facebook was in Phase 1 of the research. The interactive elements of an online survey combined with electronic recording of responses make this tool efficient for both participants and researchers. The SurveyMonkey (2013) application used to administer the survey has inbuilt features such as pull-down menus, interactive ranking, radio button and matrix choice options for ease and efficiency.

The disadvantage of an online survey was that it is impersonal with no relationship in place between the researcher and participants to encourage a commitment to the research as there was in Phases 1 and 2 research activities. This could mean the quality of answers was compromised by participants becoming distracted from the task through not understanding
questions or other barriers to participation. To develop a survey that maximised engagement, recommended quality design features of introductory contextualising, legitimising and significance explanations, were incorporated (Babbie, 2007; Creswell, 2003; Dillman, 2007; Dillman, Tortora, & Bowker, 1998). To mitigate survey and non-response errors and avoid common survey pitfalls, carefully crafted wording was used to ensure short, clear, simple and specific questions at an appropriate level of language for the participants that were not leading, subjective or composite questions (Babbie, 2007; Dillman, 2007). To achieve this the survey underwent a series of drafting, reviewing and refining processes involving the young co-researchers, university colleagues, teacher and students testers.

The Places that Matter Research Survey comprised 47 questions that elicited participant demographic information; adolescents’ detailing of their valued everyday, favourite, natural (‘green’) environments, school and school grounds places; and rating and ranking responses related to these different places. There was a mixture of open text responses, quick number and ‘radio button’ responses, as well as a series of photo-prompt questions to maintain participant interest and engagement. A paper version of the survey is shown in the Appendices, although this cannot reflect the dynamic elements of the survey (such as drop-down boxes) that were used to minimise survey fatigue and maximise engagement with the survey questions. There were 143 responses to the survey across the two Melbourne schools with almost all young people generously contributing their ideas and over 1300 short descriptions and explanations of places they valued. Only one of the 143 participants abused the anonymous nature of the survey with responses (other than demographic information) that could not be considered, bringing the effect survey participants to 142.

The inclusion of some open-ended questions enabled the young people’s ‘voice’ to be heard without the constraints of preordained responses to choose from, fulfilling Creswell’s (2003) recommendation for maximum inclusion of open-ended questioning in social constructivism research. Varying the question format reduced survey fatigue (Dillman, 2007) and introduced an engaging visual modality, particularly with the photo-prompt questions. The rating questions used a Likert scale with seven rating choice options labelled at only the end and midpoint (creating a continuous data scale) to elicit more nuanced responses for analysis using a broad range of parametric statistics (D. Anderson, personal communication, May 21, 2013; Brown, 2011).

Specific online survey design elements were incorporated following guidelines from Dillman et al. (1998), Dillman (2007) and Anderson (personal communication, May 21, 2013) to maximise survey engagement:
• Inclusions of ‘encouragers’ (progress indicator and motivational messages);
• Apportioning questions to pages to minimise scrolling;
• Allowing adequate textbox space for open-ended questions;
• Utilising interactive elements such as drop down menus and button click options;
• Visually connecting related questions across the screen rather than sequential listings;
• Reduction of cognitive load through consistent use of ranking scale orientation; and
• Use of ‘smart’ dropdown numerical ranking boxes, that automatically adjust the ranking set, instead of manual number entry and tracking.

The content for the survey questions was based on the themes and trends identified by the research teams in the Think Tanks in Phase 2 activities and informed by ideas and research tools from the scholarly literature, thus connecting this research to that of others for comparisons (Malone, 2008). The input of the adolescent co-researchers into the survey design infused the instrument with their perceptions and language, ensuring accessibility for other adolescents, consistent with the observations of Hillcoat et al. (1995) discussed previously in this chapter. The research team also drew inspiration about modes of regarding and interacting with places and nearby nature/natural environments from approaches and methods used by Brody (2005), the Kolbs (2005; 2010), Levi and Kocher (1999), Loughland, Reid and Petocz (2002), Mannion, Sankey, Doyle and Mattu (2006), Titman (1994) and Wals (1994). The work of these scholars influenced the ‘constant comparative’ types of discussions in the Phase 2 Melbourne Think Tank sessions, which in turn impacted on the survey instrument design. For example Wals’ (1994) question of ‘What is nature to you?’ prompted much discussion and was included in the survey.

There was a deliberate focus for this research study on place as anchored in the physical, through the emplaced photos and through the survey questions, all accompanied by an underlying recognition that for adolescents some valued locations may well be spaces that have no physical dimension. The identification of networking spaces as valued adolescent locations emerged in the Melbourne research teams’ Think Tank meetings. This eventually contributed a thematic code for the analysis and the research teams also decided to include digital spaces as options in the survey questions, broadening the places focus to digital spaces through the survey.

The Research Phase 3 survey was a self-contained research ‘event’ although this research phase was still interconnected with the other research phases as has been described. This interconnectedness between the research activities is outlined in the sequencing description that follows.
Sequence

Figure 4.4 summarises the sequence of research activities, illustrating the interwoven nature of the different activities carried out in the three school ‘cases’ of the study.

As Figure 4.4 shows the different research phases interconnected and incorporated elements of data collection and preliminary data analysis through the research teams’ Think Tank sessions. These interwoven research activities of this study yielded a rich collection of data consisting of:

- 629 place photos collected by the adolescent co-researchers;
• Electronic communications contributed by the Melbourne co-researchers through the nine months of Facebook interactions of the research teams and the occasional email conversations for another three months;
• Eight hours of Think Tank meeting recordings (audio and video) and transcriptions; and
• 143 responses (both qualitative and quantitative) to the online survey, including over 1300 places listed and explained.

Thus this complicated research design reaped results. In any research design issues, problems and considerations require attention. At times such considerations were amplified by the complexity of this research design but principally the data collection considerations followed standard processes as is detailed in the following section.

Data Collection Considerations

Traditionally data collected is scrutinized for its reliability, that is the data dependability and consistency over time and repetition, and for its validity in genuinely measuring what the data claims to measure. However there is debate about the relevance of considerations of validity and reliability for qualitative (and therefore also mixed) research strategies (Creswell, 2003). Instead Hart (2002b) proposes three quality considerations more applicable to qualitative methodologies: criteria of ethical conduct and data authenticity and trustworthiness, where authenticity is about the research process (“the way we know”) and trustworthiness is about the value of the data itself (“what we know”) (Hart, 2002, p. 150, his emphasis). Accordingly the data collection considerations will now be discussed under these subheadings.

Following ethical principles

Ethical and morally responsible approaches are required in any research but it is of particular pertinence when working with minors in social research such as this (Graham et al., 2013). Ethical considerations that guided this research process, and that will be discussed this section, are interacting in a socially just manner; protecting privacy and confidentiality; and a special focus at the end of this section related to researching with Facebook.

Interacting in a socially just manner

Basing research activity interactions on social justice includes considering the rights of the young people involved and treating them respectfully, following international guidelines (Graham et al., 2013). This research was not in any way exploitative. The research did not target any sensitive issues to do with culture, religion or politics and was conducted in accordance with applicable rules and regulations in India and Australia.
As a research study involving minors this inquiry was governed by particular legal and ethical requirements in Australia. Conducting the research activities associated with this study was approved through the Southern Cross University Human Research Ethics Committee (HREC) and by the governors/principals of the schools involved. When working with children in the Australian state of Victoria, where the Melbourne schools were situated, it is a legal requirement to have undergone security checks and be approved for working with children. As a registered teacher in the Australian state of Victoria I am authorised to work with minors. The Melbourne school principals granted permission for the research to be conducted in their schools after a formal application. There is no formal permission process for researching with schools in India and the village school in India is under the jurisdiction of the village leaders/governors. Both the village governors and the head teacher/school principal endorsed the students' participation in the project, welcoming my involvement with the community.

This research entailed negligible risk for the participating adolescents, their teachers and parents or the researcher. The only potential risks to participants and their adult guardians were related to any inconvenience that may have been experienced pertaining to managing and participating in the activities, or minor discomfort experienced if places selected by an individual as valued were viewed negatively by others in the group. Strategies implemented for addressing these issues were informed by scholarly literature (see for example Ary et al., 2010; Denzin & Lincoln, 2005; Graham et al., 2013; Lofland et al., 2006). The strategies to ensure the research activities progressed in an ethical manner that minimised inconvenience to the participants, their school and their families were:

- Communications related to the research project were facilitated through the schools’ usual communication processes, thereby placing no extra burden on the school communities. School newsletters, assemblies, meetings, email updates and office administrative processes for distribution and collection of forms/letters facilitated my entry into field and the logistical arrangements of the research activities.
- Informed consent processes were supported in India through the translation assistance from HELP Tourism staff and the Head Teacher. Written materials were all available in English and Hindi, as appropriate for each school. Translation support continued throughout the research activities in India.

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18 The three participating schools were non-government schools. The two Melbourne schools were part of the well-established, alternative ‘independent’ school system in Australia. The school in India is a community school operated by the leaders of the village.
• The least disruptive times to withdraw the young researchers from their other school activities for the Think Tanks meetings were arranged by the liaison teacher in each school.
• As an experienced teacher I managed the young people’s interactions in the Think Tanks meetings, including diffusing any tensions between members of the group, as any teacher would in class discussions.
• The Think Tank group discussions maintained focus on unpacking of the teenagers’ connections to local places, the nature of these connections and the learning and learning approaches around these places – nothing controversial or judgemental that could cause discomfort or distress.

The very minor risks involved in the research related to inconvenience were balanced by the benefits from involvement with the research; namely that the young people were afforded the status of experts in the field; they gained an increase in understanding of themselves and their relationships to their local places; and the community/school benefited through an improved understanding of the nearby nature young people value as a potential stimulus for environmental stewardship (particularly relevant in the India setting) and environmental education pedagogical approaches.

In keeping with recognition of young peoples’ rights, as discussed earlier in this chapter in relation to outlining the ‘child-framed’ research methodology, consent to participate in the research was required from both parents/guardians and the young people themselves for involvement in this research. In the Melbourne schools, the young people provided an additional layer of consent by electing to join the research group space on Facebook. In the survey in Phase 3 of the research, the responses were anonymous, again in recognition of the young people’s rights to govern their level of participation in the activity. In all communications, both introductory and ongoing, the voluntary nature of participation in the research and that participants could stop their involvement with the research at any time, was stressed.

Socially just approaches include more than just fair dealing with recruiting and managing the participants. Social justice extends into valuing and caring for the people involved and treating them with dignity; that is, conducting interactions respectfully (Denzin, 2009). The ‘child-framed’ research methodology used to underpin this study is one that honours the essential contributions the young people bring to the research by including them as active co-collaborators in the research activities (Barratt Hacking et al., 2013). This included affording them the status of experts in the field with me as supplicant learner (Lofland et al., 2006) and
not positioned as a differentiated ‘other’ (Denzin, 2009) but as just as a member of the research team. In this way a comfortable, informal sharing space was created that promoted easy discussion. Additionally, as an experienced teacher, my professional standards (Australian Institute for Teaching and School Leadership (AITS), 2012) and my practice are all underpinned by attending to young people’s wellbeing, so I was able to employ my skills as an experienced teacher of adolescents to ensure the interactions were respectful, inclusive and productive (Graham et al., 2013).

The appropriateness of implementing a ‘child-framed’ methodology in affluent majority contexts has been questioned, as young people are positioned differently in these communities (Fleer & Quinones, 2009; Hart, 2008b), an issue acknowledged by the proponents of the methodology (Barratt Hacking et al., 2013). Using a ‘child-framed’ approach with the young people in India was in one sense disrespectful through the imposition of a predominantly affluent minority style of research but every effort was made to conduct the research ethically and treat the participants respectfully; adjusting approaches to suit the context where possible (Fleer and Quinones, 2009). Participatory environmental education research approaches for other contexts have not been clearly articulated and require further attention (Robottom & Sauve, 2003), perhaps a ‘child-framed’ methodology, implemented flexibly and respectfully is an appropriate strategy. As found in this study, similar to Hart’s (2008) observations, the young people in India in fact embraced the activities and showed great pride and willingness to be included, more so than some of their Melbourne counterparts.

Protecting privacy and confidentiality

Treating the research participants with respect went beyond the personal interactions during research activities; it also included strategies to protect their privacy and that of their community and keeping their information confidential.

The adolescents’ involvement with the research activities could not however be kept confidential. Being identified as a member of the research group was in fact viewed by the young researchers as a positive benefit of the research; most were keen to be recognised for their involvement at school assemblies. The visible research activities (taking photos around the school/village and group meetings) were along the lines of normal outdoor learning activities and class discussions that are standard approaches in many schools and not secret or private activities.
There was a possibility that the young researchers could take photos of other school/community members that were not participants in the research activities and had not given their consent to have their photographs taken. Protecting the privacy of others in the conduct of the photodata gathering was stressed (verbally and in written information), to ensure only of photos of places and the research team were taken. If any images of others from outside the research team were mistakenly included, these records were quickly de-identified.

To protect the participants’ privacy and keep their information confidential, all data collected was used and stored following the university’s security procedures (Southern Cross University, 2012) and any extracted material published in a de-identified form. The only exception is the Facebook data that was located on the Facebook-controlled site. Protecting the participants’ privacy and confidentiality in the Facebook-related research activities required some additional security measures that will now be discussed in more detail.

Researching with Facebook

Gaining ethics permission to use Facebook as a research tool with the Australian schools took time and a number of clarifications about the mechanics and risk management associated with using Facebook with minors. Some of the issues seemed to be around unfamiliarity with the way Facebook would operate in the situation proposed, however the HREC were supportive of the use of Facebook and eventually the committee were satisfied that the approach used would protect the young people’s privacy. The following extract from the communications related to the ethics of using Facebook as research tool is an exemplar of the HREC’s position on this the ethical implications of this approach.

The HREC commended the use of ‘Facebook’. However, are the researchers fully aware of the Privacy Regulations in place regarding usage of Facebook? The researcher has not acknowledged the ‘risk’ factors in young people using Facebook. Facebook age limits – how will the researchers manage this component?

Southern Cross University Human Research Ethics Committee, 2012

Facebook has a joining age policy that you must be at least 13 years of age (Facebook, 2013). Consequently in the Consent to Participate form completed by both parents/guardians and students in the Melbourne schools, check boxes were included to ensure volunteer participants in the Phase 1 and 2 activities were at least 13 years old and had access to Facebook if participating in this aspect of the research activities.
Closed group spaces can be set up through Facebook that limit access to only approved users. This meant the *Place Matters* group space was totally private and could only be accessed by invited and approved people, that is, the space could not be accessed in the public domain of Facebook. To ensure Facebook fulfils users’ privacy requirements, it complies with international privacy recommendations certified by independent privacy organisations (Facebook, 2013).

The Facebook message facility was used to send an invitation to join the private *Place Matters* Facebook group site once written consent from the parents/guardians and young volunteer participants was received. Sending a message is a standard tool that Facebook offers to users where a message can be sent to another user without sharing any personal information. When the user receives the invitation message they can choose to ignore/reject it or respond and accept/join the private group. If participating young people had their message facility turned off, members that were independently ‘friends’ with them directed them to the group site, so they could request to join. Only the site administrators (myself and my supervisor) could invite or accept members into the Facebook group, thus controlling entry to the group.

On joining the group space the members/researchers were able to post photos and add commentary to their own or others’ posts that could only been seen by the group members. The *Place Matters* Facebook group members could not access personal information or personal Facebook ‘pages’ about each other through membership of the private Facebook group site unless they were independently ‘Friends’ via Facebook. This happens between young people all the time separately from their membership of any work/interest groups on Facebook. Facebook accounts include data privacy protection automatically put in place by Facebook (2013). In addition individuals manage the privacy of their accounts through setting selections and through the process of only granting access to their personal pages to people they approve, as the individual Facebook user is the only one that can authorise access to private information by inviting/accepting others as ‘Friends’. I promoted and modelled Facebook privacy protection strategies with the young researchers (ensuring privacy settings are switched on, protecting the privacy of their friends by not posting images of their special places that contain people, not posting personal details, etc.). Also, following teacher professional standards, I refused any ‘Friend’ requests from the young people in the research group.

The Facebook researchers’ group interaction site will be deleted at the conclusion of the research study. Downloaded data (images and text of participants’ comments) and other
research data will be retained according to university policy as with all other research data from the study.

The general risk factors of young people using Facebook are involved with their disclosure of private information, harassment or bullying and developing relationships online with unethical people (Office of the Australian Information Commission, 2014). This research study Facebook group was really just a convenient online group discussion tool. As outlined above, participating young people’s private details were protected; any inappropriate contributions were moderated and/or removed by myself as administrator of the site; all members of the research group Facebook site were identifiable members of the research team as this was a closed site that could only be entered by invitation, so no outside person had access to the group. As discussed earlier, Facebook is a social sharing tool most young people choose to integrate into their lives and as such it provides a ready vehicle for generating data collection and data interrogation alongside the young researchers’ everyday activities.

It will be recalled that according to Hart (2002) data collection quality considerations are ethical conduct, data authenticity and trustworthiness. I now turn to considering the second domain of data authenticity.

**Strategies for data authenticity**

Data authenticity relates to the nature and the quality of the research process that impacts on the dependability of the data collected (Hart, 2002). Data authenticity strategies used in this study will be discussed in relation to ensuring representative voice, power influences in the research interactions and researcher reflexivity.

**Ensuring representative voice**

The ‘child-framed’ methodology that underpins the research activities is targeted towards enabling young people’s conceptions and perceptions, analyses and reflections be heard, that is to give their ideas and understandings ‘voice’ and in this way generate authentic data (Barratt & Barrat Hacking, 2008). Instead of an outsider observer, such as an adult researcher, observing the places adolescents interact with and making interpretations from observations, this research is based on the young people’s own data recorded through photos of the places they value. In this way the data, as direct observations from the subjects of the study, is more accurate or closer to the ‘truth’ (Lofland et al., 2006). Furthermore the next step in the research, the interpretations of the photos, is also directed by the young researchers in the study, adding to the authenticity of the data (Barratt Hacking et al., 2013).
The young person’s representational ‘voice’ in the data is in fact not singular but a ‘multivoice’ with representation from different young people not just in the one context but in three often very different contexts - thus incorporating multiple perspectives, so increasing the data accuracy (Hart, 2002).

**Power influences in the research interactions**

The impact of relationship power or personal influence on data collection activities is a traditional consideration in research methods. In social research the effects of power distribution in the relationships between the researchers and subjects is inevitable (Lofland et al., 2006; McKenzie et al., 2013). Power distribution is particularly a consideration in research such as this where an adult researcher is working with young people, compounded in the India setting where the adult is a welcomed, high status visitor to the village. Those involved in the research activities in all three settings reacted in response to my position of influence as teacher/university researcher/welcomed volunteer in all of the study settings (Lofland, 2006).

In this study the power to influence others, and thereby influence the authenticity of the data collected, could be direct or indirect; where direct power is when an actor in the research instructs another how to conduct themselves in the research activities, and indirect power is when a participant’s research contribution is directed towards pleasing the power holder in the setting, not towards collecting authentic data. The positions of power within the research activities were invested in the adults involved in the activities (myself in the Melbourne schools and then in conjunction with the teachers and translators assisting in the India school, plus the teachers in the Melbourne schools who created time for the survey to be completed in their classes), impacting on the actions of the young people. Alternatively, or even in combination with adult power impacts, influential young people (individually or in small groups) in the team affect the research activities of their peers.

The effect of a perceived unequal distribution of power may have influence all stages of the research activities from the volunteering process, to the photo data collection and Think Tank meetings, and to the conducting of the survey.

In India the researcher and accompanying translators paid particular attention to the process through which consent was negotiated, observing interactions and non-verbal messages between the young people and their parents and other community members to ensure there was no coercion or pressure to consent to participation put on the parents/guardians or the students. The Indian nationals who were the guides/interpreters were experienced and knowledgeable about the study community and their local cultural values. They were skilled in
engaging with the members of the community while acknowledging their cultural values and interacting with the villagers in ways that accord them due respect and protection. In the Melbourne schools the invitation to participate was channeled through school communications without direct contact with the researcher as a potential influencer.

Once participants volunteered and consent obtained, my interactions with the young people as an authorised adult visitor to the schools and a teacher conferred on me a position of power over the students that is an inevitable part of the student-teacher relationship and may, at first, have inhibited some students’ full participation in the research. By demonstrating genuine collaboration with my co-researchers, this eased the power effect, as found by Barratt Hacking et al in their studies (2007b). The ‘child-framed’ approach deviates from the traditional power and control situation of both classroom teaching and conventional participatory research in that the collaborative processes embedded in the ‘child-framed’ methodology are based on a more distributed power modality (Hart, 2013). Time to develop relationships is needed in a ‘child-framed’ methodology (Barratt Hacking et al., 2013). This was possible in the Melbourne study sites but logistics severely limited the time possible for the research activities in India. Nonetheless the researcher, translators and assisting teachers ensured there was an equal, non-dependent working relationship between themselves and the young researchers with the focus of the activities on the young people as the ‘experts’, informing and guiding the adults in co-creating understandings about the places valued by the adolescents (Lofland, 2006). Similarly the Melbourne adolescents guided the interpretative activities, bringing some balance to the power relationships in research. In addition the voluntary nature of the research activities invested power with the young participants as the research processes include the option for the participants to withdraw from any or all of the activities at any time.

In Phase 3, the online survey, contributions were anonymous with no pressure from responses being marked or checked, assigning the power regarding choices to engage with the activity to the participants.

Researcher reflexivity

The interactions, relationships, interpretations and decisions made in the process of undertaking this research study were, inevitably, governed by my characteristics and background as a white, affluent minority, middle-class, older, educated teacher and mother with a preference for socioecologically-focused outdoor learning. As suggested by Hart and Nolan (1999), I have made a deliberate effort to approach the people and research activities in an open and honest manner, acknowledging my perspectives and using the collaborative
efforts and multiple perspective views of the young co-researchers and adult supporters in India to construct understandings of places that matter to adolescents. My positioning within the research settings and my own subjectivities inevitably shaped research interactions and interpretations (Creswell, 2003; Cutter-Mackenzie et al., 2015; Denzin, 2009) but this influence was diluted by taking a socially constructive and collaborative approach to developing understandings about the places that matter to adolescents.

As an outsider or ‘other’ (Denzin & Lincoln, 2005; Lofland et al., 2006) in a teenage world and in the village in the India setting, who I am inevitably colours my interactions in the research settings as well as my observations and interpretations. My ‘otherness’ created a barrier to accessing the nuances and subtleties of the situation that was overcome by co-opting the insider experts, the young people, and to some extent their teachers in the India school, in collecting and interpreting the data. In this way the findings are more authentic, however the subjectivities of the co-researchers also shaped the findings. Again this effect was lessened though the ‘multivoice’, co-construction approach taken. The key to the authenticity of this co-construction process was to guard against privileging a viewpoint or narrative because it resonated with my own (Hart, 2002) or one that was most forcefully or frequently presented. As an experienced teacher and facilitator I was able to ensure contributions in the Think Tank meetings were inclusive, so that no one person’s perspective or opinion dominated but all views were heard, collaborative decisions made and meaning constructed holistically. This was effected by keeping within my facilitator role in discussions, limiting inclusion of my own experiences or ideas, and carefully listening to conversations and answers to non-leading questions (Lofland et al., 2006) or clarifying questions about photos the young people had contributed. In this way uncovering the perceptions and conceptions of the adolescents’ reality, not my subjective interpretations from an outsider’s perspective.

As well as limiting effects of the co-researchers’ reflexivity, strategies were required to enable the young researchers to reveal their ‘truths’ not just the truths filtered through their notions of social acceptability (directed towards me as an adult and teacher), peer acceptability and dominant cultural discourses (Harrison, 2000; Mannion et al., 2006). Through individual photodata collection in the Melbourne schools; male/female parings, not friend pairings for photodata collection in the India school; and individual, anonymous responses for the survey, peer pressure influences were limited and diverse perspectives represented (Mannion, 2007). Additionally, in the Think Tank meetings, by building an informal, confidential, sharing relationship with the young researchers and entrusting them with power to direct the research activities, the young researchers were more likely to be comfortable to reveal their private realities not their public or censored truths.
Regardless of the strategies taken to ensure inclusive processes and distributed power, the ultimate responsibility for decisions related to the focus and collection of data still rested with me as the chief researcher (Prosser & Loxley, 2008). This is a disadvantage in terms of the authenticity of the reality of young peoples’ connections to places revealed through this research, and a necessary constraint that is embedded in social science research with young people when the researcher, by necessity, is the prime mover for establishing the project structure and protocols (Barratt Hacking et al., 2013). This disadvantage was ameliorated through the strategies outlined above and was far outweighed by the benefits of gaining direct access to the perceptions and realities of the experts – the participant young people – in the research. As Lofland et al. advise, strategies to minimise the effects of researcher attributes and difference, such as those described for this study, need to be in place but these constraints are not impossible to account for and “should not be overemphasized” (2006, p23).

I now turn to the final data quality consideration of trustworthiness from Hart’s (2002) list of the three key considerations of ethical conduct, data authenticity and trustworthiness.

**Strategies for data trustworthiness**

Data trustworthiness relates to value of the data, that it is credible and dependable and a true reflection of reality (Hart, 2002). Data trustworthiness strategies used in this study will be discussed in relation to use of multiple sources to compile properly representational data. It will be recalled that error minimisation techniques used in the survey instrument to ensure data trustworthiness or validity have already been outlined in the earlier discussion on the survey instrument construction.

**A multifaceted approach**

Inbuilt in a phenomenological methodology is the irrefutable accuracy of observations and interpretations as these are made directly by the subjects of the study, “to tell it like it is” (Norris & Walker, 2005, p. 132).

Triangulation of data by combining several research methods is traditionally considered as a data trustworthiness strategy (Babbie, 2007; Fleer & Quinones, 2009; Lofland et al., 2006). Denzin (2009) however argues that the complexity of reality can only be approximated when viewed from “more than three sides” (p. 18), that multiple perspectives and structures, i.e. a multifaceted approach or as Clark and Moss (2001) advance, a mosaic approach, is required. A multifaceted approach is achieved in this study where a compilation of data sources (photographs, Facebook commentary, Think Tank conversations and survey responses) from
multiple perspectives (21 young co-researchers and 143 survey respondents) and multiple cases (field settings in India and two Melbourne, Australia communities) all build to strengthen the trustworthiness of the findings about the places that matter to adolescents.

Employing multifaceted research modalities conveys hybrid strength to the research, where the favourable qualities of each method strengthen the data, covering the gaps weaknesses in individual methods may create (Babbie, 2007). This multifaceted approach builds on the research method strengths of eliminating reliance on a single perspective through a collaborate research team effort (Lofland et al., 2006); data contextualised and verified in the Think Tanks and through the survey (Lofland et al., 2006); inclusion of spoken, written and visual data (Burman & MacLure, 2005); and multiple ‘cases’ or research settings adding conviction (de Vaus, 2001).

Despite strategies employed in the research journey to ensure smooth data collection with maximised ethical, authentic and trustworthiness considerations, things did not always go to plan as I will now discuss.

**Data collection issues/problems**

As in any situation interacting with people, especially young people, their responses and actions cannot always be anticipated and planned for. The following discussion recounts the challenges and unexpected events that occurred during the data collection that prompted reflection and the adoption of alternative strategies.

Despite devolving the power in the research relationship to the young researchers through open and transparent communications and opportunities to direct the research activities - such as the initiation of Facebook and Think Tanks discussions and drafting of the survey (Barratt Hacking et al., 2013; Reid et al., 2008), and by use of open, probing questioning (Lofland et al., 2006) - the young researchers were, at times, looking to me for direction. Adopting a ‘child-framed’ methodology calls for young people to manage their participation in the research themselves (Barratt Hacking et al., 2013), not an unrealistic expectation for teenagers. But in practice this did not happen easily. Young people’s participation in research is more complex than Hart’s linear ladder model (1992) with levels of participation changing in response to the constraints and opportunities of different research activities (Jensen, 2000, as cited in Dyment, 2008).

With time and confidence in the research processes most of the Phase 1 and 2 young researchers actively engaged with the research activities but were somewhat reluctant to take
control of the process, particularly the young people in India and in the traditional Melbourne school (Blue School). The young researchers sometimes just followed the role of a passive student waiting to be directed by an adult, so despite opportunities and the best of intentions, the young researchers did not always take on the role of equal partners. As Barrett (2008) maintains, in participatory research, such as in this study using the ‘child-framed’ methodology, the ethos of the research process is contrary to the dominant patterns of behaviour and as such is hampered by the barriers of this accepted way of being – the young people at times struggled with stepping outside their role of students to become active, equal partners in the research, as they expected to be told what to do following their normal “culture of schooling” (Dyment, 2008, p. 251).

With hindsight it was unrealistic to expect the students to quickly take on the role of researchers, despite research activities such as gathering and analyzing information, generating reports and presentations commonly incorporated into formal schooling activities (Barratt Hacking et al., 2013). As Barratt Hacking et al. (2013) and Fleer and Quinones (2009) point out, time and training are needed for young people to develop their research skills. Hart (2008) himself acknowledges that his ladder of participation is not a guide to liberating children from adult control rather a recognition that different levels of participation are appropriate and even the ultimate child-led level of participation requires some adult guidance; that it would be naive to think otherwise. In the spirit of devolving control of the research to the young people, I did not have a plan for research skill training. Instead modelling the data collection and interrogation evolved as part of the early Think Tank sessions. In the India school there was no time for training the students in research skills other than how to use the cameras. In the two Melbourne schools the sustained nature of the research activities, involving Facebook prompts and a cyclic process in the Think Tanks of repeated photo displays, photo interrogation, trend spotting and survey drafting, enabled an on-the-job style of training. So despite the research plan omitting participant training, this still evolved as a natural part of the research process.

The Facebook research group contributions and interactions were less frequent than predicted, despite the young people indicating they enjoyed this method of participation. Use of prompts and open-ended questions through Facebook elicited limited response, although most participants viewed the posts and often tagged comments or photos with a ‘like’ vote without posting themselves. Again with hindsight, expecting a high level of interaction on the Facebook group site, which was more work than recreation, may have been unrealistic.
A disappointing change to the planned research activities was there were no adolescents in attendance during my visit to a second India school (they were elsewhere that week), so the added richness of a second group of participants’ perceptions from an India context (in the spirit of building conviction in the data through multiple cases as recommended by de Vaus, 2001) did not eventuate. This means the India findings cannot be as dependable without a second case setting to check for data trustworthiness but the inclusion of the one India group was still a bonus for adding richness to the data on many levels.

The enthusiasm of the teachers in the school in India at times dominated the Think Tanks discussions in their efforts to assist and translate the young researchers’ photo interpretations and discussions. To counter this I maintained focus on the young people, keeping eye contact and demonstrating with my attention to them that they were powerfully positioned in the research activities as the keepers of the expert knowledge (Babbie, 2007). The teachers followed my lead and the group discussions kept focusing on the young people’s photos and their conversations about them. I expected to be able to communicate in English to some extent with the young people but they were not very proficient with this, only the adults were.

The devolved nature of the ‘child-framed’ phenomenological methodology used for this study meant I ceded much of the control to my adolescent partners in the research activities and to the gatekeeper teachers for managing the logistics of the research. This research approach created uncertainty (Wals and Dillon, 2013) that I found surprisingly frustrating. I had to be patient and wait for the young people to invite me to view their perceptions of their valued places through Facebook when it suited them. Similarly the extended period of Phase 2 (Think Tank) and Phase 3 (survey) activities was in response to the young people’s directions and the scheduling allowed by the teachers. In India the Head teacher in fact took control of the recruitment process, as he was very excited about the students being involved in a university research project, even taking it upon himself to sign off the consent for the students as their guardian in the school. This did not concern the teachers, observing parents, local guides or students – they treated this as usual - so I had to respect this response and be guided by them as to what was acceptable in their setting. This rush into the research in India contrasted with the timing of the activities in the Melbourne schools where the prolonged period of research did mean longer to build collaborative working relationships within the teams, develop skills and greater opportunities for analysis and reflection; however the young people underwent the normal changes associated with growing up during that time that that influenced their perceptions – changes in friendship groups and year levels over the course of the Phase 1 and 2 activities.
The data collection activities in this research inquiry into the places that matter to adolescents were multifaceted for authenticity and trustworthiness, with data gathering using different methods, in different settings, with different participants. The multifaceted approach intermeshed the different methods to strengthen the quality of the research findings.

Section summary

The multifaceted data collection activities of this research study have been described in this section. The participant cohorts from the three school study sites were presented and the three research phases of activity they undertook were detailed – the ‘photovoice’ activities, research team Think Tank meetings and the online survey. Organisational aspects of the data collection have been described including procedures followed for entry into the field, researching ethically, ensuring data authenticity and trustworthiness, and data collection issues and how these were approached.

It was noted that preliminary data analysis activities undertaken by the adolescent co-researchers were interwoven with the data collection. Thus a linear progression from data collection activities to data analysis activities does not represent the reality of the study but for convenience I now turn to consideration of the data analysis techniques employed in this research.

Section Four: Data Analysis Techniques

The interconnected, interwoven methods used in this study, as indicated earlier, blend data collection and data analysis such that the initial analysis was incorporated into the Phase 1 and 2 research activities. This enabled the young co-researchers to identify patterns of meaning. In the case of the Melbourne participants they were able to undertake a prolonged and for some a profoundly reflective inspection of the places they value. From my perspective the data analysis process was a sustained immersion in the cycling processes of data collection, analysis, meaning making and writing, as I moved between the three phases of the research in the three school settings, in combination with the periodic interactions on Facebook – a complex and changeable process (Creswell, 2003). As indicated in Figure 4.5, the research activities related to collecting and examining the data, researcher questioning and identifying emerging patterns of meaning all interacted. This meshing of the iterative photodata collection, data interrogation and Think Tank meetings meant the analysis was a predominantly inductive activity through persistent immersion in the data (Lofland et al., 2006) and data interactions.
As can be seen from Figure 4.5 the research processes were characteristically not neatly linear in keeping with the qualitative methodological aspects of the research (Ary et al., 2010). Despite the overlapping and intermeshed nature of the research activities there were definable analysis approaches, methods and considerations that I outline in the following sections. Initially I will present an explanation of the analysis approaches taken, then descriptions of the analysis techniques employed followed by consideration of analysis problems or issues.

**The data analysis approach**

An eclectic mix of incidental and deliberate analysis techniques were engaged to make sense of the data; each process important in building a cohesive and robust set of findings, and often operating concurrently. The deliberate, planned analysis activities include both the informal emergently inductive analyses arising from the collaborative research team interactions in the photodata and Think Tank activities, and the later more traditional techniques employed to methodically process the data from all phases of the research. Figure 4.6 provides a simplified model of the data analysis processes applied in this study.
As is evident in Figure 4.6, the data analysis processes are multiphased, incorporating the preliminary analysis work of the adolescent co-researchers and my later systematic analyses supported by software applications. In reality many of the processes were overlapping or concurrent. Additionally, interspersed amongst these incidental and deliberate analysis activities was my continual reflective and analytical ‘soundtrack’ or internal dialogue that occurred while undertaking data collection and analysis activities over the long period of engagement with the research teams. Five different ‘steps’ or approaches taken in the analysis journey – (1) the research team spontaneous analysis activities, (2) working the ‘headnotes’ or reflections, (3) inductive thematic analysis, (4) second stage hybrid thematic analysis, and (5) systematic data categorising and analysis – will each be described in the following, then the specific techniques that were applied to carry out the analysis will be described.

Data analysis approach 1 - The research team spontaneous analysis activities

A ‘child-framed’ methodology, as employed in this study, differs significantly from a participatory approach enlisting young people as just ‘voiced’ subjects, instead a ‘child-framed’
methodology includes the young people as active research partners. This means their engagement in data analysis activities (as well as other research activities) was actively supported and valued through the research processes (Barratt Hacking et al., 2013). In this Place Matters study the young people’s analyses of the data took place predominantly in the Phase 2 Think Tank meetings where the research teams gathered to interpret and interrogate photographs of places contributed by the individual young researchers; proposing common themes and points of difference in the data; and, with time, generating collaborative understandings that formed the basis of the survey instrument design.

This preliminary sorting and focusing of the data by the research teams started at a superficial level (for example a home places focus) then as the Melbourne Think Tanks continued to meet the teams turned their attention to more reflective analyses, identifying trends, patterns of meaning and foci for further inquiry between meetings. In this way shared findings emerged from the interrogation of the photos and the group discussions in an inductive manner.

The focus of the last Think Tanks in the Melbourne schools shifted to using the patterns of meaning identified to inform development of the Phase 3 survey, checking and clarifying the shared understandings in the process. This checking continued electronically after the last Think Tanks when survey drafts and an online trial version were shared for editing through Facebook and email.

The research teams’ collaborative analysis of the data that was interwoven with the data collection activities was informed by Glaser’s (1965) original ‘constant comparative’ approach with the revisiting, refining and redefining of patterns of meaning as the Think Tank meetings progressed.

**Data analysis approach 2 - Working the ‘headnotes’**

An essential analysis element of the research was the continual reflection and analysis that was an ongoing process involving valuable internal musings or ‘headnotes’ (Sanjek, 1990) and regular notes-to-self or ‘jottings’ (Lofland et al., 2006). The headnotes were prompted by my participation in the Think Tank and Facebook group interactions; in reviewing the young researchers’ photos; from reading over field notes and relevant literature; through listening, re-listening, watching and re-watching Think Tank recordings; by transcribing the conversations from the Think Tanks; through playing with and refining the survey design; and in conversing and listening to other scholars about their research as part of my work. These activities sustained an ongoing reflection and analysis process that continued on in the background of my awareness, generating a Place Matters lens that tuned me into connections
and meanings related my research. This regularly stimulated new ways of thinking that I brought to the Think Tanks and the analysis activities. ‘Working the headnotes’ also meant a profound ‘hearing’ (Lofland et al., 2006) of messages and meanings to effect a deep inquiry. This reflective and pattern-recognition analysis was a way of thinking running in parallel to the other research activities (and life activities); not a scheduled research task but one I found very worthwhile and added value to more methodical analyses.

**Data analysis approach 3 - Inductive thematic analysis**

The Phase 1 and 2 research activities (‘photovoice’ and Think Tanks) as qualitative approaches prompted an inductive analysis process of seeking patterns in the data (Babbie, 2007; de Vaus, 2001). The initial phases of this identification of patterns of meaning occurred in the research team Think Tank meetings with the young researchers identifying trends in the data in the process interrogating the group’s photos. The emerging trends were clarified and enhanced with each progressive Think Tank meeting, informed by their own and the other teams’ findings, and other stimulus material (from my listening, reading, testing out of survey inclusions, etc. ‘headnotes’) I introduced to the Think Tanks. An exemplar of this was my sharing of Wal’s question of “What is nature to you?” (p. 8) posed to adolescents in his 1994 study, as mentioned previously. This prompted much discussion in the Melbourne Think Tanks and was eventually included as a question in the survey. In preparation for the survey the Melbourne research teams inductively organised and summarised the substantive trends into themes (Hunter, Emerald, & Martin, 2012).

Once all phases of the research activities were completed by the adolescent research partners, I continued the qualitative analysis, extending this to the open question responses from the survey, intensively interacting with all data types (photos, Facebook records, Think Tank transcripts, email messages and survey responses) to gain a deep appreciation of the data, thereby identifying clusters of meaning. Categories, sub-categories and category relationships emerged through the “sorting and resorting” of the data (Lofland et al., 2006, p. 100), managed through Microsoft Excel and NVivo software. This included reduction strategies to consolidate categories into themes such as community places and nearby nature places.

**Data analysis approach 4 - Second stage hybrid thematic analyses**

As well as the young researchers’ and my inductive identification of data themes or categories, a second stage, deeper thematic analysis was undertaken. This involved a hybrid mix of deductive and recontextualised inductive theme analyses. Fereday and Muir-Cochrane propose a staged, hybrid (inductive and deductive) thematic analysis as adding rigor (2006).
Gustafson also notes the benefit of a second stage of analysis to go beyond initial observations and enable the “underlying dimensions of (place) meaning emerge” (2001, p. 12). With “thoughtful attentiveness” (Ary et al., 2010, p. 473) to my data as well as my theoretical framework and the scholarly literature I discovered alternative analysis pathways. Firstly that Loughland et al.’s (2002) framework of nature conceptualisations could be applied to the adolescents’ positioning of nature in their lives. Secondly, building on the Kaplan’s (1995) contention that place preferences are not frivolous but an expression of an underlying connectedness, I realised that the participants’ nominated places could be reevaluated with a focus on the descriptions and semiotic (visual) information that evidencing the adolescents’ cognitive and effective perceptions of these places, broadening from a location focus to a conceptual meaning focus. So a second stage, recontextualised categorisation of the data produced place meaning themes (dependence, identity, etc.) and conceptualised places themes (‘homeplace’, ‘keeping place’, etc.), thus strengthening the analysis.

Data analysis approach 5 - Systematic data categorising and statistical analysis

With this mixed methodology research the analysis extended from the qualitative-style identifying of themes and statistical describing of data into quantitative statistical analyses. The closed question responses to the online survey in Phase 3 of the research were in a quantitative format for inferential statistical analysis. To enable comprehensive analyses and comparisons using all of the data, the Phase 1 & 2 and Phase 3 open-ended response data, and the qualitative analysis categories already identified were re-classified from the initial inductive descriptive codes into a comprehensive dataset. This was achieved by recoding the identified place and activity themes into numerical codes to enable analyses for correlations and identification of influencing factors (Babbie, 2007; Pallant, 2007). This provided a “common framework” (de Vaus, 2001, p. 253), bestowing flexibility to the analysis through a range of bivariate and multivariate relationship testing using SPSS software. This enabled findings and comparisons to be made across the diverse, multifaceted data from the study.

Now with the analysis approaches I employed explained, I turn to describing the specific analysis tools and methods that facilitated the analysis.

Data analysis methods

The specifics of the data analysis are considered in this section in five categories: (1) techniques and approaches from the literature that informed the analysis; (2) first stage
inductive thematic and descriptive statistical analysis; (3) deductive thematic analysis; (4) second stage recontextualised thematic analysis; and (5) inferential statistical analysis.

Table 4.4: LITERATURE USED TO INFORM THE DATA ANALYSIS

<table>
<thead>
<tr>
<th>Reference</th>
<th>Inductive</th>
<th>Reductive</th>
<th>Deductive</th>
<th>Inspiration/guidance element</th>
<th>How this was applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owens (1988)</td>
<td></td>
<td></td>
<td>✓</td>
<td>All referred to the notion of places of symbolic/remembered meaning.</td>
<td>Adopted ‘keeping place’ as a conceptual place category.</td>
</tr>
<tr>
<td>Chawla (2002)</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lim &amp; Barton (2010)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carson et al. (2005)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wals (1994)</td>
<td></td>
<td></td>
<td>✓</td>
<td>Themes for adolescent nature positioning - as background, entertainment, a challenge, for reflection, as threatening, for learning, as history, as endangered.</td>
<td>Adopted 'background' place meaning category.</td>
</tr>
<tr>
<td>Francis et al. (2013)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loughland et al. (2002)</td>
<td></td>
<td></td>
<td>✓</td>
<td>6 scale conceptions of environment</td>
<td>Applied to data.</td>
</tr>
<tr>
<td>Kudryavtsev et al. (2011)*</td>
<td></td>
<td></td>
<td>✓</td>
<td>Sense of place constituent elements.</td>
<td>Adopted 'dependency, meaning and identity' for place meaning categories.</td>
</tr>
</tbody>
</table>

* Key influencers for my own theoretical model.

Data analysis method 1 – application of a priori techniques

This research study is unique as it uses the emerging ‘child-framed’ methodology to investigate the little researched area of adolescents’ place and nearby nature connectedness and
engagement. For advocates of the claim that this is a little researched area see for example Chillman, 2003; Mannion et al., 2006; Rickinson et al., 2004 and others discussed in Chapters One (Introduction) and Two (Literature Review). There are commonalities however between this study and others that allow cross referencing to be made; gaining inspiration, guidance and techniques from other scholars, therefore enabling connections and building the environmental education research in this area (Malone, 2008; Rickinson, 2001) and trustworthiness in the analysis. The ideas that informed this analysis are listed in Table 4.4 that shows the specific references, the focus element and how it was used in the analysis. Also indicated in Table 4.4 is the data analysis process associated with the informant literature – inductive, reductive or deductive thematic analysis.

As will be noted from Table 4.4, some of literature cited strongly influenced the place psychology factors within my own theoretical framework. My framework of place engagement mediating factors presented in Chapter Three – Theoretical Framework, and represented in Figure 3.4, also provided a lens for analysis of the data. My theoretical framework factors of adolescent developmental imperatives (stimulating experience, socialising, autonomy and restoration); place psychology factors (relationships of affordance, dependence, meaning and identity); and socioecological related influences (family, peers, community, environment), also provided guidance for the data analysis.

**Data analysis method 2 – First stage inductive thematic and descriptive statistical analysis**

As described in the earlier explanation of the data analysis approaches taken in this study, qualitative inductive analysis of the data was the first stage of analysis; initially through the research team work with the adolescent co-researchers, then I completed the process after the research teams had adjourned. Microsoft Excel database software was used to track the initial trends that emerged in the Phase 1 (‘photovoice’) and 2 (Think Tanks) activities with the adolescent co-researchers.

Once all meeting records had been transcribed NVivo qualitative data analysis software was used to explore all the text-based data – meeting transcriptions, Facebook records gathered through NVivo’s direct capture facility and open response survey data captured from the online SurveyMonkey survey reports. NVivo word frequency and word cloud analyses and data queries19 were performed as preliminary data interrogations in the search for emergent trends and reoccurring patterns in the data. Through this data manipulation and immersion, coding

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19 Refer to Appendices K and L for exemplar informative data analysis word cloud and word tree displays generated through NVivo.
categories emerged to systematize the data (Babbie, 2007), with new categories added as the classifications into codes progressed. This initial open coding of the data items was commenced with NVivo but the large amount of photographic data created inefficiencies with this process. I found Excel more effective for my coding use and returned to this software to code all the data into (initially) place and interaction categories. Using Excel surprises and anomalies in the coding were easily identified through systematic sorting and resorting of the data spreadsheets. In this way all the data was classified to enable sorting and extraction of different data groupings so findings could be explored using different perspectives or frames, such as individual participant perspectives or thematic perspectives (Bulfin & North, 2007).

Using the assistance of software streamlined the analysis processes of trialling and refining data categorisation, discovering coding anomalies; conducting data searches and queries to reveal connections (Creswell, 2003; Lofland et al., 2006). Through NVivo and Excel, exemplar photographs, commentary and dialogue were designated for use in reporting and illustration of themes, similarities, difference and correlations in the findings.

Excel was used at this stage to generate some descriptive statistics such as frequency distributions, proportions, means and modes. At this time the data was also reduced into consolidated categories of place such as the ‘parent’ groups of all nature related places or home places, foregrounding “aspects of meaning” (Ary et al., 2010, p. 649).

**Data analysis method 3 – Deductive thematic analysis**

As will be recalled, the Loughland et al. (2002) six level framework for rating young people’s conceptualisations of ‘the environment’ was identified as a means of categorising the survey respondents’ positioning of nature in their lives, in response to the ‘What is nature to you?’ question. This was a straightforward and successful coding with Excel using a 1 to 6 rating code for the degree of sophistication the respondents’ evidenced in their definition of nature according to Loughland et al’s conceptualisation scale. Each response was assigned an ordinal code depending on the degree of ‘natureness’ in the response against Loughland et al.’s scale. This deductive thematic analysis yielded results that were suitable for comparisons with other similarly focused research, thereby enabling my findings to complement those of others in the field.

**Data analysis method 4 – Second stage recontextualised thematic analysis**

The rationale for undertaking a second stage recontextualised thematic analysis was explained previously in the analysis approaches chapter section. This process was achieved by returning
to the raw data and examining the place locational data (photos and descriptions) in conjunction with the place explanatory data (participants’ explanations and interpretations related to how they interacted with the particular places). In this way underlying meanings could often be identified related to the adolescents’ conceptualisation of ‘place’ and their relationships with places. For example if a participant described their connection to a place using words such as ‘my’ (e.g. „team, family, space) and ‘I love’ (e.g. „soccer, dancing, family) then this indicated a sense of identity related to that place and was coded as such, again using Excel initially. Similarly some of the adolescents’ descriptions of places indicated that the places were more important to them than just a location; that they held strong conceptualisations of ‘place’ that included location, function in their lives and their relational perceptions of the locale. Conceptual places evident were, for example, their ‘homeplace’ and ‘keeping place’ of memories and cultural meaning. These were nuanced, underlying meanings that were only assigned if clearly evident from the adolescents’’ responses. This was a focused coding stage where the data was focused by its degree of adherence to conceptual place and place relationship indicators (Babbie, 2007). I erred on the cautious side for this analysis and employed a ‘rule of thumb’ that the lesser categorisation was used if there were any ambiguities in meaning. For example if one of the responses being classified was not clearly about an identity relationship with place but a strong connection was evident, I coded the response for a place relationship of ‘meaning’ not ‘identity’. Descriptive and inferential statistical analyses of these new data groupings were then possible using the SPSS statistical analysis software.

Data analysis method 5—Inferential statistical analysis

The closed question responses from the online survey provided data that was readily analysed using descriptive and inferential statistics. This was performed using the SurveyMonkey (2013) report generator and SPSS queries. This statistical analysis extended through to the qualitative data with the coding transformed from initial descriptive coding (based primarily on the adolescents’ own descriptors) into numerical coding (Lofland et al., 2006) and the addition of second stage thematic codes that were already categorical or ordinal codes. Thus the (now) numerically coded qualitative data was added to quantitative survey data for statistical analysis with SPSS software.

Statistical analyses of single variable (univariate) descriptive statistics such as frequencies of responses and inferential statistics of paired (bivariate) or multi-variable (multivariate)
comparisons of the place data and in combinations with demographic data were possible with SPSS software (Creswell, 2003; Pallant, 2007). Inferential statistical tests conducted were comparisons with Chi-square test for independence (Pearson’s Chi Square and Cramer’s V value reporting, depended on group size) with Crosstabulation summaries of relationships; ANOVA tests to measure the respondents’ responses for the ranked survey questions; and Pearson product-moment/Spearman’s Rank Order correlations. Factor analyses were conducted but these did not produce useful results.

Regardless of the data analysis approaches or methods used, just as with data collection, considerations of authenticity and trustworthiness apply. I now turn to these considerations.

Data analysis considerations

With the blending of data collection and data analysis processes in this study, strategies to minimise power differences and researcher subjectivities have already been discussed in relation to data collection in the earlier chapter section. These considerations equally apply to the data analysis and so will not be restated here, although this is not to minimise their importance. Again the multifaceted approach, incorporating multiple perspectives, confers authenticity and trustworthiness.

As a lone researcher it was difficult for others to acquire a similar intimacy with the data for checking on coding and analysis. Ary et al. (2010) contend that a mixed methods approach is difficult for a lone researcher with the range of processes necessary. This tension was partially eased through the young researchers’ perspectives illuminating the patterns of meaning that I then became translator for, assigning codes for analysis within the software. Inevitably though refinements and extensions to the analysis conducted in the Think Tanks were needed that only I could make where (following the guidance of Hart and Nolan (1999) as discussed earlier) I did my best to approach the analysis reflexively and methodically, conscientiously trying to be as unbiased and representational as possible (Hart, 2002). This process was advantaged by the prolonged nature of the research activities where my “puzzlements and jottings” (Lofland et al., 2006) over time effectively became a self-checking mechanism.

Section summary

The data analysis approaches of (1) spontaneous qualitative analyses the research teams as part of the Think Tank meetings; (2) the inclusions of my analytical ‘headnotes’ or reflections; (3) inductive thematic analysis of adolescents’ places and place interactions; (4) the second
stage hybrid thematic analysis; and (5) systematic data categorising and analysis were outlined in this chapter section explaining and justifying the approaches taken. Then the details of the specific analysis techniques were presented; namely (1) techniques and approaches from the literature that informed the analysis; (2) first stage inductive thematic and descriptive statistical analysis of adolescents’ places and place interactions; (3) deductive thematic analysis with reference to Loughland et al.’s (2002) taxonomy; (4) second stage recontextualised thematic analysis for the adolescents’ conceptualised places and place relationships; and (5) inferential statistical analysis. This chapter section concluded with reference back to the considerations of authenticity and trustworthiness from the data collection discussion that equally apply to the data analysis. Other considerations related to issues of conducting the analysis as a lone researcher were also explored.

This is the last chapter section of this Chapter Four – Methodological Approach. Accordingly I now summarise the chapter in the conclusion.

**Chapter Conclusion**

In this chapter detailing the methodology and methods for this research study I have positioned the research as a mixed methods study, gaining a balance of breadth and depth through qualitative and quantitative methodologies, in order to construct with young people meanings in relation to how adolescents connect and engage with their valued local places and nearby nature. The methodology based in a ‘child-framed’, empowering approach through a phenomenological focus in the case of three communities – two in urban Melbourne (Australia) and one in remote northeast India – has been outlined.

I have described how applying a ‘child-framed’ methodology enabled my young co-researchers to work in partnership with me to collect and analyse data about the places that matter to adolescents. The sequence of data collection and data analysis with the research team was explained: commencing with the young people’s ‘photovoice’ activities, shared through a closed Facebook site and face-to-face in Think Tank research team meetings; the iterative Think Tank meetings that enabled the research team to uncover meaning and identify themes; and, eventually, the construction of an online survey to check the research teams’ findings and gather data from a larger sample of adolescents.

The data analysis as interwoven with data collection and emerging inductively through the Think Tank meetings and with constant comparative approaches was reviewed, accompanied
by an outline of the extension of the data analysis process into systematic thematic and quantified analyses and the methods employed in these research activities. Accordingly the techniques applied to arrive at both descriptive and inferential statistical findings were described.

In addition, quality considerations related to the data collection and analysis and the strategies to address these issues in the research activities that impact on the trustworthiness, authenticity and ethical dimensions (particularly important in this context of research with minors and as an affluent minority researcher working with less-privileged majority young people in India) were discussed including strategies employed to ensure the soundness of the data and analysis.

These methodologies and methods of co-opting young people as the insider experts to be co-researchers, investigating through photo data collection, photo elucidation conversations, analytical and reflective discussions and probing understandings through a broadcast survey, connect directly with my research questions focusing this inquiry on the places and place interactions that matter to adolescents.

With the methodological positioning, research methodology, methods and quality assurance strategies now detailed, in the following chapter, Chapter Five – Context of the study: The Research Schools, I provide a brief background for each of the three participating school communities, that is the three contexts the participants were drawn from that were previously introduced in this chapter when describing the participants; namely the two Melbourne schools and the village school in India.
CHAPTER FIVE
CONTEXT OF THE STUDY: THE RESEARCH SCHOOLS

Introduction

In this chapter I briefly introduce the three research settings, i.e. the three school communities that the participant young researchers belong to, as the background context of their lived experiences of place. The school context is important to note as Rickinson (2001) in his review of learners and environmental learning, found that the schooling and community context influence young people’s perceptions of the natural environment and environmental learning. In this research study three different settings were selected for investigation: a renowned Melbourne, Australia environmental/sustainability school; a conservative, traditional, affluent minority type of school; both of which are situated within the one cultural and geographic context (Melbourne in the state of Victoria, Australia); then a school situated in a vastly different cultural and geographic context, that of the remote Eastern Himalayan area of India.

School 1: Melbourne ‘Sustainability’ School ['Green School']

The Green School\(^{21}\) is an appealing outer metropolitan school on the border of a protected ‘green wedge’ zone, that is unusually spacious and ‘greened’ in a country that is blessed with generally spacious, attractive and engaging schoolyards, as can be seen in the aerial view of the 100 acre/40 hectare school grounds in Figure 5.1. From this aerial view of the school grounds incorporated recreated wetlands and woodlands areas ('wildscapes'), a small farm allotment, three vegetable gardening areas and an abutment to the local river are seen.

The school is an independent (non-government) school rated with an Australian Index of Community Socio-Educational Advantage (ICSEA) of 1135, above the average index figure of 1000, with a distribution of students from the top quarter of socio-educational advantage listed as 54% (Australian Curriculum Assessment and Reporting Authority (ACARA), 2012b),

\(^{21}\) Pseudonyms have been substituted for all names in this study, both places and people.
indicating that the school fits a ‘middle\textsuperscript{22}’ class demographic. The student population is approximately 350, ranging from Kindergarten (Preschool) to Year 10 (middle high).

The school curriculum includes ‘Environmental Studies’ as a core Year 7 and 8 subject (junior high) and ‘Global Sustainability’ as a core Year 9 and 10 subject (middle high) which is unusual as environmental education is rare as a subject in schools (Rickinson et al., 2009).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{green_school.jpg}
\caption{The ‘Green School’}
\end{figure}

Melbourne is a ‘greened’ metropolis of approximately four million people that is the capital city of the Australian state of Victoria. Colloquially Victoria it is known as the ‘Garden State’ of Australia and recognised as one of the world’s most liveable cities (CNN, 2013). Melbourne is built curved around Port Phillip Bay (which can be seen on the horizon in Figure 5.1) so it is a city of urban sprawl. Most suburbs include small allotment recreational parks and at least one greened oval where the local Australian Rules football team plays in winter and the cricket

\textsuperscript{22} Australia is not strongly divided by social class and my labelling the schools as such is not properly politically correct, but I use the class generic descriptors here to give an impression of how the school community is situated socio-economically.
team over the summer. Despite this generally ‘greened’ city, the Green School’s extensive and natural school grounds are unique in Melbourne.

The school motto is *Make a Difference* and they have developed a ‘Sustainable Thinking Dispositions’ framework (Figure 5.2) that guides all the schools’ curricular and co-curricular programs.

![Figure 5.2: Green School’s Sustainable Thinking Dispositions framework](image)

The four interlocking rings of the Green School’s Sustainable Thinking Dispositions framework seen in Figure 5.2 symbolise different sustainable thinking lenses that guide the schools’ curriculum and program activities. Teachers use the framework for planning and students use it to guide their predominantly inquiry-based project work.

**School 2: Melbourne ‘Traditional’ School [‘Blue School’]**

The Blue School is an independent, conservative and traditional school located in one of Melbourne’s more affluent, established suburbs. The front view of the school taken from the adjoining major roadway (Figure 5.3) is a distorted perspective, promotional photograph that foregrounds the only open green space available in the school grounds, as all other ground space behind this is taken up with multistory buildings and hard surface courtyards. Buildings
(not visible) also wrap around the other two sides of this green space with the road frontage completing the circle around ‘the green’.

The school is rated with an Australian Index of Community Socio-Educational Advantage (ICSEA) of 1165, above the average index figure of 1000, with a distribution of students from the top quarter of socio-educational advantage listed as 71% (Australian Curriculum Assessment and Reporting Authority (ACARA), 2012b), indicating that the school fits an ‘upper’ class demographic. The school motto is translated as Learn something new every day. The student population is approximately 1300, ranging from Kindergarten to Year 12.

![The ‘Blue School’](image)

*Figure 5.3: The ‘Blue School’*

The schools’ curriculum does not include an environmental/sustainability subject but environmental education activities are included as part of the Year 9 co-curricular program.

**School 3: Eastern Himalayan India Village High School [‘India School’]**

The India School is located in the remote north-eastern region of India in the Eastern Himalayan foothills. It is located 55 kilometres from the nearest town and a four-hour, predominantly 4X4, drive to the closest regional centre. The cultural group of this region is
predominantly Nepalese of Hindu and Buddhist faiths. The village consists of approximately 150 farming households with most of the families living below the poverty line. The village is isolated and has few outside visitors. The electricity supply was only connected in early 2011 and power shortages are common. The villagers have pooled their resources to build the primary and high schools (some nearby villages have no schools) and as village schools they are under the governance of the village leaders. The schools look to the India curriculum for guidance but the students’ education levels are lagging behind progress of schools in the cities (HELP Tourism, personal communication, September 29, 2012). The school does not follow a set curriculum; instead they follow 1950s style English textbooks as the teachers have no teacher training, except the Head Teacher who is one year trained. Once schooling has been completed at Year 10 level, there are few opportunities in the village for the young people that have graduated.

The high school is a recent addition to the village, inaugurated in March 2012 but has yet to be granted affiliation under India’s Central Board of Secondary Education. The high school, like the rest of the village, is cut into a steep hillside and comprises a basic four classroom building with a small gravel playing area as shown in Figure 5.4.

Figure 5.4: The ‘India School’
As can be seen in Figure 5.4 the India School is rustic compared with the two Melbourne Schools. Facilities in both the school and the village are minimal as this is a remote, under resourced village with most of the village population engaged in farming crops such as rice, ginger, cardamom and various vegetables. Additional industry to generate income involves collecting rocks from the riverbed in the dry season for building and road construction. Recent new ventures in the last year are a small three-sewing machine tailoring centre and a homestay accommodation block with four rooms and a basic shared (cold water) bathroom (where I stayed while visiting the village).

The India School village community is self contained and relatively self-sufficient. Visitors are rare. Contact with the world beyond the village is predominantly via radio. UNICEF (2011) reported that the success of Google’s social networking site in India in 2007, prompted Facebook to be made available in many areas of the country but not the Nepali areas where the India School village is situated. Facebook access would be irrelevant for the people of the village however, as there is no internet access and the few computers in the village are those at the school that have come from donations. Cellular phone coverage is almost non-existent in the area. Reliable phone connections are through satellite phones that are beyond the means of the villagers, as are the satellite internet ‘dongles’ for the school to gain internet access. Thus the lived experiences that the adolescents from the India School contributed to this research study are vastly different to those of the young people from the Melbourne schools.

Chapter conclusion

In this chapter I have introduced the three very different school contexts that the young research participants in this study were drawn from – a remote village school in India, a traditional affluent minority independent school in Melbourne and a more alternative school in Melbourne that is based on sustainability principles.

I now turn to presenting the findings of the research undertaken by the adolescents from the three schools, commencing with next chapter, Chapter Six – Places that matter to adolescents in remote India, followed by Chapter Seven – Places that matter to adolescents in Melbourne.
CHAPTER SIX

PLACES THAT MATTER TO ADOLESCENTS IN REMOTE INDIA

Introduction

In the previous chapter, Chapter Five (Context of the study: The research schools), I described the three school communities where the adolescent participants for this research were drawn from. The data derived from the research will be presented in this chapter and Chapters Seven and Eight. This chapter, Chapter Six, focuses on the places my adolescent research partners in India valued. Chapter Seven focuses on the places the Melbourne adolescent co-researchers preferred and Chapter Eight presents the findings from the last phase of the research, the broadening online survey.

In all of the data chapters (Chapters Six, Seven and Eight) I present the findings aligned with the four focus areas (lenses) of my research questions; namely, adolescents’ valued places; patterns of interaction with these places; the young people’s positioning of nature in their lives; and their place-based environmental learning. Therefore each data chapter is similarly structured, using the research focus areas (lenses) as consistent subheadings to organised the presentation of data, as indicated in Figure 6.1. This chapter map in Figure 6.1 therefore acts as a guide for the presentation of findings that will be followed over the next three chapters.

As will be recalled from Chapter Four (Methodological Approach), recurring patterns emerged within the data that enabled data grouping into categories or themes of similarity. The key data themes allied with each research lens is indicated in Figure 6.1, mapping the data chapter structure and demonstrating the commonalities between the data chapters.

In this first data chapter, focused on the places that mattered to my adolescent co-researchers in India, I draw upon the 466 photographs the 12 participants took of their valued and important places; the transcripts from the almost two hour Think Tank research team meeting with the young people and the teachers/interpreters that translated their explanations and interpretations about their place photographs; and my field notes23.

23It will be recalled that the remoteness of the village and the logistics of visiting there restricted me to one research visit to work with the adolescents from India over an intensive two-day period.
The adolescent co-researchers in India embraced the photo survey activity, traversing great
distances (including those on the vertical plane of their extremely hilly countryside) to gather
many photos to share with me. Our conversations about the photos were necessarily succinct
due to language barriers and the summarising effect of translation. This is reflected in the
brevity of comments and conversations reported in this chapter. The young people’s photos
were evocative but the nuances of their verbal interrogation of the photo data were not collectable. My field notes however captured some of the subtle information related to the
research and so I have interspersed my comments from the field amongst those of the
adolescent researchers in this presentation of the data from India, to illuminate aspects of
non-verbal communication and context.

Figure 6.1: Data chapters (Chapters 6, 7 & 8) map indicating the thematic presentation of the
findings across the three data chapters.
I now turn to consider the first lens for this study (as articulated in the research questions), the places that were valued by the adolescents in India.

**Valued Places**

This chapter section presents the places in and around the village that my adolescent co-researchers in India identified as important to them. The village is small, consisting of approximately 150 households straddling the steep slopes and created terraces of the hilly terrain. The young people roamed the whole area to take photographs of their valued places in the village and surrounding forested areas.

The places the adolescents in India valued (not including any photographs of close-up detail)\(^{24}\) were predominantly those important to the whole village (48% of the place photos), their home and surrounds (39% of the place photos) and places of scenic natural beauty (12% of the place photos), with only 1% viewing their school as significant.

The types of places within the themes of community, home and nature selected by my adolescent co-researchers as important to them are indicated in Table 6.1. This table expands the thematic categories of community, home and nature to indicate the types of places within these themes the adolescents valued and that will be examined in this chapter section.

The India adolescents’ preferencing of community places points to a major divergence from previous adolescent place studies. In other times and contexts adolescents have predominantly favoured home (Abbott-Chapman & Robertson, 2009; Korpela et al., 2002; Owens & McKinnon, 2009; Sommer, 1990) and/or nature (Korpela et al., 2001; Owens & McKinnon, 2009; Sommer, 1990). Although the young people in Finland in Korpela et al.’s (2002) study and teenagers from Owen’s (1994) study in Melbourne, included sports/playground settings as highly valued places, a theme that could be aligned with a community category. Home dominates as the most preferred location in past adolescent place

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\(^{24}\) The photographs of place detail (where the actual place could not be distinguished) were omitted from the valued place data considered in this chapter section. These ‘nature close-ups’ are used to inform the forthcoming chapter section on the position of nature in the adolescents’ lives. Refer to Appendix M for preliminary photo analysis frequencies for all photo subjects (place and nature close-ups) captured by the India co-researchers.
inquiries that are predominantly set in affluent minority contexts. The India\textsuperscript{25} adolescents’ privileging of places important to their community may be a reflection of a different cultural focus to that of affluent western lifestyle allied to Panelli and Tipa’s (2007) observation that in anglocentric societies autonomy and individualism is privileged whereas in other contexts collectivist and interdependent qualities are valued.

### Table 6.1: PLACES OF IMPORTANCE TO THE YOUNG RESEARCHERS IN INDIA

<table>
<thead>
<tr>
<th>Adolescents' place photos by type</th>
<th>count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community (48%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community industries: crops, sowing</td>
<td>35</td>
<td>21</td>
</tr>
<tr>
<td>Sacred places</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Football ground</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Symbolic or historical</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Community neighbourhood</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Landslide</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Home (39%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>House</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Garden</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>Family farm animals and plants</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Pets</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Vegetable growing</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Yard</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Extended family</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nature (12%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenic views</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Places for escape</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Symbolic natural places</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>School (1%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% TOTAL</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Nature close-ups (not places)*</td>
<td>262</td>
<td></td>
</tr>
<tr>
<td>Repeats /mistakes (not counted)*</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>466</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Not included in the thematic place analysis

The dominance of community places amongst the India adolescents’ valued place data is evident from Table 6.1. I now turn to presenting my adolescent co-researchers’ photographs and explanations about their valued places, commencing with their home and surrounds to contextualise the adolescents’ village setting that was the focus of this stage of the research.

\textsuperscript{25} I often use the descriptor ‘India adolescents’ that I recognise is grammatically incorrect but I have chosen to persist with this term to clearly differentiate the participants from Indians of North America.
HOMEPLACE

In this study I use the term ‘homeplace’ to describe the encompassing base of the adolescents’ family unit - the family home and yard/garden area, and extensions to the family unit of extended family places that were identified by the young people as important to them; places such as the adjacent animal pens and ‘home paddocks’, and extended family home bases (grandparents’ home, etc.) that the young people regularly inhabited. So in this sense my use of the term homeplace is broader than the more usual Heideggerian dwelling focus view of home place (Cresswell, 2004; Wattchow & Brown, 2011) to more authentically depict the expanded ‘home’ territory of adolescents. I also apply this term of homeplace as representational of the home and associated family areas to the findings of the Melbourne adolescents’ valued places reported in Chapter Seven (Places that matter to adolescents in Melbourne) and Chapter Eight (Survey of places that matter to adolescents).

In the following field note I record my first impressions of the village and the villagers’ homes upon my arrival:

Field notes: Monday 25 September – Altitude 3500 feet!

Arrived in the village (finally!). [I travelled to the village with a volunteer education group from Australia.] The drive here was so bumpy and rocky. This really is a remote and hilly place. The villagers greeted us with a short welcome ceremony and then we walked to our homestay, attracting a lot of shy attention. The homes we passed look to be small and of basic design, some in better repair than others, and all surrounded by mainly working landscapes – some gardens, also vegetables, animal pens, growing fields and even a grave amongst the pens – very rural and very different to what I am used to. We are up so high, the views are of endless forested hills (mountains?). An amazing place!

I sought to understand the places photographed by my young co-researchers and how they identified and valued the places important in their lives, as homes, food growing areas and farming areas appeared to merge with no distinguishable boundaries. This is evident in Durga’s photo of home:

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I use the term ‘home paddocks’ as it is used in farming in Australia to mean the pens and fields close to the home of a farm where animals are sheltered (pens and protected areas for sick and young animals), equipment is stored, family-use vegetables are grown, etc.

27 The 12 adolescent co-researchers in India worked in mixed sex pairs using the six digital cameras I supplied. Effectively each pair provided one ‘voice’ once photo explanations were translated. The pairs are known here by pseudonyms Lungta, Pabitra, Durga, Laxmi, Hima and Chhetri.
It became apparent from the young people’s photographs that self-sufficiency was paramount given the remoteness of their community, as was demonstrated by Durga’s comment on the photo of the rice paddy in Figure 6.2:

Researcher: Do they sell rice elsewhere, or just for families?

Durga (via interpreter): Just for family.

Strongly represented in the photos the adolescents took of their homeplaces were images of food plants, particularly vegetables. The photograph from Chhetri in Figure 6.3 shows the intensive use of the family’s homeplace consistent with a self-sufficiency focus. Every available space was assigned to growing food. Chhetri’s homeplace photo in Figure 6.3 shows a pumpkin vine growing over the roof of the animal shed next that is next to the house.
There was a recurrent theme evident related to food growing areas around the home amongst the adolescents’ photographs. The appearance of photo after photo of different food plants from the young researchers became quite amusing. Exemplar food growing areas around the home are displayed in Figure 6.4. This focus on food is consistent with adolescents’ physical development needs during adolescence as time of growth which accords with neuroscience processes that cause the “elevated consummatory behaviours of adolescence” (Spear, 2000, p425).

The India adolescents’ preoccupation with vegetable plants and food growing areas around their homes, as represented by the photographs in Figures 6.3 and 6.4, accords with
Kudryavtsev et al.’s (2011) contention that place dependence is a factor that contributes to a sense of place. This also resonates with my place interaction theoretical model (as described in Chapter Three, Theoretical Framework) to account for factors that mediate adolescents’ engagement with place. The adolescents’ valuing of places where their food was grown indicates a relationship mediated by dependency on the place for their wellbeing. An unsurprising finding in the context of their isolated, self-sufficient lifestyle.

Also noticeable was my young co-researchers’ (both boys and girls) preference for the flowers that made their homes attractive. They contributed many photos of the flowers, pot plants and gardens from the immediate vicinity of their homes that they were very proud of. Exemplars of these are shown in Figure 6.5:

![Figure 6.5: Laxmi and Durga’s photographs of their attractive gardens at home.](image)

Explaining the attraction of the flowers, Hima commented that they “Like the flowers. Around home. Yeah, yeah, that’s important.” The adolescents’ favouring of the attractive garden areas around their homes, that they proudly displayed, suggests their homeplace was linked to their identity consistent with Korpela and Hartig’s (1996) contention that favourite places provide an indication of place and thus self-identity.

It was noticeable that the adolescents rarely contributed photo data from inside their homes. The intense heat and humidity of the region, combined with rustic, small houses, meant that many daily activities took place in the garden or were conducted on the boundaries of the actual buildings. As I relate in the following field note, I experienced this outdoor living one evening when our visiting group were invited to relax on the roof of the homestay building, as this was cooler and more spacious than sitting in the bedrooms inside:
Field notes: Wednesday 26 September, evening. Still very hot and humid.

After a long hot day at the school, we retired to the roof of the homestay where we were served tea. We asked about the roof. Apparently once a building is completed then tax is owed, so the newer houses are usually left unfinished, with spikes of metal reinforcing sticking up through the upper balcony level such as where we sat and watched the day turn into night – it would never get past OH&S in Australia. This addition to the house had been recently built for our visit with support from HELP Tourism. The family and a number of the local children gathered on the roof with us, happy to relax at the end of the day in what is obviously a popular cool spot to sit with outdoor chairs and rugs in the evening. We could see down into the central village area and up across the ridge to the other homestay house, so we had a lot of fun calling cooees across the hill. A message came that the younger members of our visiting group were invited to socialise with the young people from the village. Later we heard that there was a gathering at the gazebo-like shelter at the other homestay where there was singing, dancing and listening to Indian music on the radio.

Laxmi’s photograph in Figure 6.6 displays this rooftop evening gathering area above the homestay building I referred to in my field note. The stairs leading to the roof and the spikes of metal sticking up indicate the unfinished status of the building. Despite the incomplete nature of the building it was more modern than the family’s dwelling area (out of sight off to the left) that was a much older, timber building, with cooking conducted over a fire on the verandah.

Figure 6.6: Laxmi’s photograph of the homestay building with rooftop relaxing area that has been added to the family’s homeplace.

It quickly became obvious that the adolescents’ life in the village in India was very different to those of young people in other contexts reported in the literature. Past adolescent place
studies have highlighted the value teenagers place on their personal bedrooms (Abbott-Chapman & Robertson, 2009; Hodkinson & Lincoln, 2008; Owens & McKinnon, 2009). This was not the case with the adolescents in India. I suggest this absence is due to the small, rustic design of their homes, consisting of multipurpose rooms and daily activities spilling out into the outdoors; such as the use of the rooftop as a place to sit and relax as I recount in my previous field note. Durga’s photo in Figure 6.7 of the family cooking gives an indication of the rudimentary facilities of the home, suggesting the luxury of a personal bedroom would not be a reality.

Figure 6.7: Cooking at Durga’s homeplace.

My young co-researchers’ pride in their traditional practices and the historical elements of their homes was discernible, as is represented in Laxmi’s photograph in Figure 6.8 and the commentary about this homeplace:

Laxmi (via interpreter): This is used, we used here a type of grass, is grown over here, it save the water. They use the grass over the roof.
Researcher: OK, thatching.
Laxmi (via interpreter): Ah, thatching.
Researcher: So is that a special house that one?
Laxmi (via interpreter): Not a special house. You can see...traditional yes. It can be seen traditional - buckets, umbrella, traditional implements.
Researcher: Ok, is that why you took it because it’s showing traditional things?
Laxmi: Yes.
This sense of pride and connection with homeplace, such as that displayed by Laxmi regarding the traditional home design, is further indication that the young people’s sense of identity was connected to their valued place of home (Korpela & Hartig, 1996). This is also consistent with Kudryavtsev et al.’s (2011) sense of place framework and my theoretical model that depicts place meaning and place identity as factors that mediate adolescents’ engagement with place.

Animals had a visible presence amongst the adolescents’ photo data of valuable places. The homeplace areas containing the family’s animals were the focus of many of the young people’s photographs, with numerous photos of cows, chickens, pigeons, cats, goats and even rabbits. This is represented by Laxmi’s photographs in Figure 6.9, which was augmented by the explanation that the rabbits were valued as pets (not food as I had mistakenly supposed considering the focus on sustaining food plants previously in the conversation):

Researcher: The rabbits. Are the rabbits for food are they or are they pets?
Laxmi (via interpreter): They’re pets.
Family pets have consistently been found to benefit a young person’s wellbeing and development (Faber Taylor & Kuo, 2006). This suggests the positive impact the adolescents experienced as a result of their enjoyment of the family animals, such as those captured in Laxmi’s photos in Figure 6.9, influenced their choice of the animal pens as valued places; as is also consistent with my theoretical model that identifies socioecological factors as mediating adolescents’ wellbeing through place interactions.

As noted previously, the boundary between home and community was blurred in the village. Homes surrounded by vegetable gardens and animal pens merged into the crop growing areas, creating a continuous ‘village space’ that everyone walked freely through and which, in turn, merged with the surrounding countryside. The adolescents displayed a sense of belonging to the village ‘tribe’ and the village as a place, in addition to their individual homeplace. It will be recalled that the adolescents’ community places photo data dominated the other place groupings (including homeplace). I now turn to presenting this category of the adolescents’ valued places - the village or community places.

Valued community places – extending the homeplace

It was apparent that the young people of the village in India were aware of the resources and activities around the home and the village that were significant for the village and their survival. This was evident through their photos and commentary that indicated their valuing of places that were important to the community. Independently the adolescent researchers gathered similar place photos around the village. Places such as crop growing areas; community areas such as the new tailoring centre with three treadle-style sewing machines (recently set up by Literacy India); access roads; and the new homestay buildings. In this
chapter section I will represent the community places that my adolescent co-researchers valued.

The high value some of the adolescents attributed to community places was indicated by the effort some of them made to gather difficult photos of places they desired to contribute to the research. This was demonstrated in my field note comment about the distance travelled and effort one group expended to collect photographs they deemed important:

**Wednesday 26 September. Clear, hot, sunny morning after the rain from the storm last night.**

The girl and boy in the Durga pair came up to me breathless and hot. I was concerned that something was wrong. When they showed me their photos, there were pictures looking down on the school and the village from a great height, showing a huge river in the valley floor that I didn’t realise was close. I realised that they had climbed way up above the village to get this shot. They just laughed at me when I couldn’t believe they had bothered to walk (run?) so far in a short time and they went up so high. They were obviously determined to show me this important part of their neighbourhood and were very pleased that I was amazed.

The community significance of this photograph of the river was revealed during the Think Tank research group meeting:

**Researcher:** What’s that one?

**Hima (via interpreter):** The river.

**Researcher:** The river! OK, what’s important about the river?

**Hima (via interpreter):** They saying for this village and surrounding village that this river is bigger river for this area. And you can see down there on this river, it has a lot of stones. They can collect the stones.

**Researcher:** Stones, OK. So the stones are important for the roads?

**Hima (via interpreter):** For the roads, for structure.

**Researcher:** For building, OK, so very important to the community.

**Hima (via interpreter):** The stones of this river are carried in the (local term) baskets.

**Researcher:** OK, so the river’s important to you. Alright.

**Laxmi (via interpreter):** They export to other countries like Bangladesh. Because from here only the rocks are supplied to Bangladesh.

**Researcher:** Ah, so it’s industry? Brings money?

**Laxmi (via interpreter):** Yeah.
The river the young people referred to as an important resource for building and as a source of income is shown in Durga’s photograph (Figure 6.10) that required the breathless climb to well above the village to gain this perspective.

Figure 6.10: Durga’s photograph of village and then the river way below.

The lack of vehicular transport around the village became evident through the adolescents’ photos of villagers using traditional baskets to transport materials (rocks, cut foliage for the animals, wood, etc.) around the village and surrounds. These traditional baskets were carried on the back and braced with a head strap that went over the forehead as shown in Laxmi’s photograph in Figure 6.10. In commenting on this photo of a man carrying wood for the cooking fire on his back, Laxmi acknowledged the physical demands associated with their community’s rural, subsistence lifestyle with the comment, “In our village the people work harder, they work very hard on their land.”
Laxmi’s comment about Figure 6.11 suggests a personal experience of the hard work associated with the village, rural lifestyle that is consistent with the contention that adolescents in less-privileged majority contexts are positioned differently to adolescents in affluent minority societies. Brown et al. (2002) characterise young people in India as dutifully engaging with societal expectations and responsibilities, which contrasts with the affluent minority positioning of childhood as a time free of responsibilities Munoz (2009). Laxmi’s recognition of the collectivist effort required to maintain their rural lifestyle was echoed by the young people Gold and Gujar (2007) researched in a remote north-western desert region of India. The India adolescents’ experience of their outdoor life is in direct contrast to the romanticised view of a carefree, rural childhood often portrayed in affluent minority discourses, particularly those related to childhood-nature connectedness (Munoz, 2009). The Government of India also recently recognised the harsh conditions of adolescents marginalised by “structural poverty” (2014, p. 21).

The adolescents’ foregrounding of places of community importance was evident through their photographs of the earthquake and associated landslide damage that occurred in the previous year. Every research group included these sorts of images amongst their photo data as represented by those in Figure 6.12.
It was evident from the adolescents’ commentary about the impacts of the earthquake and landslide, shown in Figure 6.12 and also in Figure 6.13, that places significant for their community were significant for them. This reinforces my earlier contention that the India adolescents’ place valuing was prompted by their sociocultural influences that include an ethos of privileging community interests (Panelli & Tipa (2007).

This heightened awareness of places and concerns that impacted on their village community was evident from Pabitra’s comment that the landslide had cut them off from access to the food supply of the lower village “because they used to get food there - this land is not accepting them because of landslide”. Lungta also comment on the impact of the landslide that forced families to relocate after being segregated from the village community when the road photographed in Figure 6.13, the only road to the other side of the ridge, became blocked by the landslide: “That no longer this is our main way for walking, there’s no other route to come over here. So there is only a single way. There is no other optional way.” This identification by the adolescents in India of places significant to the community as significant them, again reinforces their socioecological collectivist and interdependent imperatives as mediators of their place preferencing.
Similarly, it was evident that the young researchers were aware of the isolation of their village, with places of community advancement apparent in their photo data – such as the new homestay buildings to promote tourism, the new village cottage industry of a tailoring centre described earlier, and the road planning sign about the project to connect the village with a neighbouring village that is shown in Figure 6.14.

Figure 6.13: Lungta’s photo of the road and the landslide that now blocks access.

Figure 6.14: Laxmi’s photo about the road construction project that will connect the village to local places that there was no road access to.
It was obvious from the adolescents’ photos and from my experience of the absence in the village of resources I take for granted (car, reliable power supply, computer and internet, cellular phone reception, labour-saving machines) that the adolescents and their community had to be inwardly (community) focused and self reliant, similar to other remote self-sufficient communities (Gold & Gujar, 2007). Yet when I asked them, they all knew what Facebook was!

A spiritual dimension to their valued community places was visible from my co-researchers many photos of the local temple, small forest shrines and even ancestors’ graves as depicted in Figures 6.15 to 6.18:

![Figure 6.15: Laxmi’s photo of the “traditional temple” that they go to “for festivals”.

![Figure 6.16: One of Chhetri’s special places – a small shrine in the forest.](image)
The integration of the land with cultural spirituality evident in Hima’s photo in Figure 6.18 of a spiritual tree with prayer flags and a small shrine for offerings next to it, and the small forest shrines many of the adolescents photographed such as Chhetri’s photo in Figure 6.16, are akin to the spiritual connection to ‘country’ recognised in other indigenous peoples (see for example Rose, 2013 and Wheaton, 2000).
This intermeshing of nature and the lives of the adolescents in India was obvious from their photos of valued community spiritual locations seen in Figures 6.15 to 6.18 and from much of their other photo data. I now turn to the natural places beyond the village that the adolescents in India identified as important to them.

**Places of nature**

It will be recalled that after community and homeplace, natural places were the India adolescents’ third type of valued place. In this chapter section I explore the natural places the young people valued.

It became apparent from exploring the community and *homeplaces* the adolescent researchers identified as important to them that the young people’s life in their remote village in India was closely connected to their natural surroundings. As already described, the young people represented their lives as closely connected to nature through their photos of the food plants, crops, animals, river, sacred sites and countryside of their home and community where they lived and worked. I wondered about their lives not just as responsible community members but also as teenagers. My reflections in the following field note about the process of engaging my young research partners in this inquiry represents my interest in discerning the adolescents’ personal, teenage places of value:

<table>
<thead>
<tr>
<th>Field notes: Wednesday 26 September – after lunch</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have been a bit dismayed at how little English the students speak. They seem to understand a lot of what I say but rely on their teacher and Bhaskar [my translator] to explain most of their photos. I am worried that they are saying what they think the teacher wants them to say, so I want to try to find out more about the ‘teenage’ things – where they go with friends and be kids.</td>
</tr>
</tbody>
</table>

Probing to identify places the young people socialised was responded to with much laughter and no real answer, as represented in the conversation below about the ‘walking hill’ shown in Figure 6.19:

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Laxmi (via interpreter)</th>
<th>Laxmi (via interpreter)</th>
<th>Laxmi (via interpreter)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>They are saying this local area in hills.</td>
<td>And what’s important about this area?</td>
<td>They go there...</td>
</tr>
<tr>
<td></td>
<td>That goes there...</td>
<td>They go there? To play sport or just go and talk?</td>
<td>Go for walk.</td>
</tr>
</tbody>
</table>
Researcher: Go for a walk? Just the boys, just the girls, or the boys and the girls? Which one?

(Lots of laughter)

Researcher: Everybody? So just your age, or young children? Is it a teenagers’ area?
(More laughter from the young people)

Laxmi (via interpreter): There is a way here is a house so they are just walking over there.

Figure 6.19: Laxmi’s valued place – the ‘walking hill’.

In contrast to other place studies that have identified adolescents’ focus on places where they can socialise and have fun with friends (Abbott-Chapman & Robertson, 2009; Korpela et al., 2002; Owens, 1988, 1994; Owens & McKinnon, 2009), the adolescents from the village in India did not identify particular places for these sorts of activities. There were no shopping malls or parks available to the adolescents in India that their teenage counterparts in the previous place studies listed as preferred locations. Instead it was evident that the young people in India use all the village surrounds – the farming and wild areas as their playground, as represented by the photos in Figure 6.20 they took of themselves playing around in the natural surrounds.
Only three large flat playing areas suitable for soccer or similar ball games were distinguishable in the area. These were the flat the young people called the football (soccer) ground, shown in Figure 6.21, and the flat areas in front of the primary school and the high school, shown in Figure 6.22.
Figure 6.21: The ‘football ground’ photographed by Hima.

Figure 6.22: The High School and neighbouring houses showing the playing flat below the school building, as photographed by Lungta.

The few flat spaces in the village area represented in Figures 6.21 and 6.22 were identified by some of the adolescent researchers as important to them. These ‘play’ places were infrequently mentioned, unlike Korpela et al. (2002) and Owens’ (1994) previous adolescent place studies where sporting grounds were identified by the participants as some of their most valued places. These past studies were however situated in affluent minority contexts where the adolescents’ community resources included developed parks and sporting grounds.
It became obvious from the adolescents’ place photographs that they valued places in nature to walk and gather with friends. One such special place was identified by Lungta as the hollow area under a large tree that is shown in Figure 6.23.

![Image of hollow below a large tree](image)

**Figure 6.23: Lungta’s photos of the hollow below the big tree.**

Lungta explained the hollow at the base of the large tree depicted in Figure 6.23 as somewhere that “looks nice and it helps them to take rest from the hot.” Demonstrating the intimate knowledge the adolescents had of their area that was dominated by nature and that they valued.
The adolescents in India identified that the places that mattered to them were the places that were important to their community, consistent with a cultural perspective that privileges collectivist and interdependent values as has been noted in other cultural contexts (Panelli & Tipa, 2007). I advance these contextual (socioecological) influences to account for community places preferencing by the adolescents in India in contrast to home preferencing by affluent minority world adolescents in previous adolescent place studies, as is evident from the adolescents’ lived experience of place in the village in India that is outlined in this chapter. The young people demonstrated an awareness of the importance of community connections and collaboration that were necessary for their subsistence lifestyle. The adolescents also valued their homeplaces, the houses, gardens, animals and farming areas associated with their family unit, evidencing pride in their homes and a sense of identity connected with their home and their community. The young people’s village lifestyle was intimately connected with nature and the young people valued their natural surroundings, identifying special places in nature they enjoy.

This chapter section focusing on the adolescents’ valued places provides an impression of the demanding village lifestyle of the people of this village in remote rural India. Some of the young people’s patterns of interaction with the places they valued have been introduced in association with the descriptions of their valued places. I now turn to further scrutinising their place interactions.

**Patterns of interaction with places: how the adolescents valued ‘their’ places**

In exploring the adolescents’ valued places in the remote village in India, I extended the analysis beyond classification by geographic location to include analysis of the ways the young people interacted with places - the significance or value of their places and the attitudes and values they demonstrated about places. These different ways of framing the adolescents’ preferred places inform the understanding of places that matter to them. Often the places could be categorised in many ways – by description, use, physical type, perceptions and significance, consistent with other studies of young people’s interactions with place. Examples of this are Owens and McKinnon’s (2009) study of Californian adolescents where three types of place interaction -
recreation, restoration and socialising – were identified; or Malone (2007b) who categorised young people’s place interactions into physical, social, natural and learning. Place is simultaneously both simple and complex (Cresswell, 2004) so the ways of framing place interactions will naturally be complex and overlapping. In this study identifying place-making influences that relate to the theoretical dimensions (articulated in Chapter Three, Theoretical Framework) of adolescent needs (lifestage), people-place relations (place psychology) and socioecological influences. Within this framework specific types of place interactions emerged from the adolescents’ descriptions of the ways they engaged with their valued places, as are listed in Table 6.2.

**Table 6.2: THE INDIA ADOLESCENTS’ INTERACTIONS WITH THEIR VALUED PLACES**

<table>
<thead>
<tr>
<th>Modes of place interaction</th>
<th>Count</th>
<th>Proportion by %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical – body/experience</td>
<td>21</td>
<td>13</td>
</tr>
<tr>
<td>Belonging/connectedness</td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td>Memory/iconic valuing</td>
<td>24</td>
<td>15</td>
</tr>
<tr>
<td>Recognition of essential for community</td>
<td>41</td>
<td>25</td>
</tr>
<tr>
<td>Socialising</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Nature appreciation</td>
<td>38</td>
<td>23</td>
</tr>
<tr>
<td>Restoration/renewal</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>162</td>
<td>100</td>
</tr>
</tbody>
</table>

The ways the India adolescent engaged with their identified valued places, as detailed in Table 6.2, are clustered into two key interaction patterns; that of connectedness (belonging, valuing places of memory/iconic value and recognition of essential places for the community), and nature appreciation. These key place interactions will be considered in this section. In my quest for understanding teenage peer interactions, as recounted earlier, there was a glimpse revealed into the India adolescents’ behaviour that echoed this, admittedly, affluent world stereotypical view I held of teenage behaviour that I include at the end of this section on place patterns of interaction. Accordingly, I now turn to outlining the place interactions associated with the India adolescents’ valued places, namely: Connectedness, Nature appreciation and Nature escapes.

**Connectedness**

There was a strong sense of connectedness to, and at times even dependency on, the places the adolescents in remote India identified as important to them, as has been alluded to in the previous chapter section examining the places the young people identified as important to
them. It will be recalled that the places my young co-researchers in India valued were predominantly those related to home, the food growing and farming extensions of the home, and places significant to the village in terms of survival and spiritual meaning.

The modes of interaction or engagement with the places the young people photographed, that are recorded in Table 6.2, evidence a strong sense of connectedness associated with the young people’s selection of the places of value to them. This is discernible from the more than 50% of interactions attributable to their valued places aligning with connectedness through a sense of belonging to places, recognition of places essential for their community, and the places that were keepers of memory or iconic meaning. Even the physical/active/sensual engagement category of place interaction was often related to a place that supplied food essentials and therefore also linked to the young people’s strong sense of connectedness, even at times dependency, to their valued places.

The connectedness dimension of the young researchers’ engagement with the places they identified with as important to them was clearly demonstrated by every research team’s highlighting of the impact on their lives of the recent landslide, as noted in the previous chapter section. Similarly more everyday places they valued told this story of their connectedness to their community as represented by Hima’s commentary and photograph in Figure 6.24 of the bridge across a small gully that was valued for both access and connecting with others:

Researcher: What’s important about the bridge?  
Hima (via interpreter): They are saying it is transport for the public to walk.  
Researcher: OK, to get to places. To see each other. To do things.  
Hima (via interpreter): To say hello, hi.
A sense of place, as explained in the theoretical framework for this study detailed in Chapter Three, is related to describing reasons for people’s attraction to places (Kudryavtsev et al., 2011). As outlined in Chapter Four, Methodological Approach, a second stage thematic analysis of the young people’s photo data and place interrogations focused on revealing the adolescents’ relationships with place. Following this method, the India co-researchers’ conceptualisations about their sense of place connectedness to their valued places was defined into categories of background convenience (could be any place); affordance (the place offers something to the person); dependence; meaning; and identity. This classification of the India adolescents’ places according to their place relationship is displayed in Figure 6.25. My young co-researchers in India did not always reveal a definite conceptualisation of their relationship to the places they photographed. Accordingly only the places that could be allied with an articulated place relationship were included in this second stage analysis as is represented in Figure 6.25.

Consistent with their subsistence lifestyle in their remote village, much of the India adolescents’ conceptualising of their valued places was related to the resources that places supplied and their dependency on these resources, as is seen by the predominance of place affordance and place dependence categorisations in Figure 6.25.
The places of meaning represented 34% (58 places) of the India adolescents’ places defined by relationship as is shown in Figure 6.25. Frequently the adolescents’ meaningful places incorporated aspects of nature appreciation that I now turn to considering.

**Nature Appreciation**

Despite a clear demonstration of valuing places and the natural surroundings for the support and resources that enable their survival, the young people in India also valued their surroundings for their intrinsic natural beauty as represented by Laxmi in the commentary below about the photograph in Figure 6.26, which was one of the many scenic view photographs contributed by all the research teams. Previously in Table 6.2 I presented the data relating to the ways the adolescents interacted with places. As can be seen in Table 6.2 the appreciation for nature category made up 23% of the observed place interactions, this represents 38 incidents of nature appreciation expressed from a total of 162 photos related to place interactions. Laxmi describes an appreciation for the scenic view of nature shown in Figure 6.26:

<table>
<thead>
<tr>
<th>Laxmi (via interpreter):</th>
<th>The tree over there is viewpoint.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher:</td>
<td>So tell me about the viewpoint?</td>
</tr>
<tr>
<td>Laxmi (via interpreter):</td>
<td>Even where you are staying by the house, just a view of that house.</td>
</tr>
<tr>
<td>Researcher:</td>
<td>OK, so what’s important about the view to them? Why is the view important?</td>
</tr>
</tbody>
</table>
Laxmi (via interpreter): They are saying through this viewpoint we can see the long distance, the playing area, the river, the (Nepali name) mountains. It looks nice.

Researcher: Ok, so they like to go and visit it and look. OK.

Laxmi (via interpreter): Refreshment.

Researcher: OK, to relax.

Laxmi (via interpreter): To relax.

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**Figure 6.26: A scenic view taken from the ‘Viewpoint’ by Laxmi.**

Laxmi’s appreciation of the nature view from the ‘Viewpoint’ accords with recognition that views of nature confer restorative benefits (Maller et al., 2009; Owens, 1988; Ryan et al., 2010). The young people all demonstrated a deep knowledge and appreciation for their natural surroundings evidenced through their photo data. The position of nature in their lives is considered in the next chapter section but before I turn to this I briefly recount an example of the young people in India playfully engaging with nature.

**Nature escape**

The young people in India predominantly valued places that were important for the community good, presenting an awareness of responsibilities and duties in their lives, consistent with culturally appropriate behaviours (Brown et al., 2002; Panelli & Tipa, 2007). As described earlier, the natural surroundings were their ‘playground’ even though there was
little focus and discussion evident on places for typical, anglocentric teenage interactions that have been characterised in previous adolescent place studies situated in affluent minority contexts (Abbott-Chapman & Robertson, 2009; Korpela et al., 2002; Owens, 1988, 1994; Owens & McKinnon, 2009; Sommer, 1990; Wals, 1994). The tree hollow used as a retreat from the heat discussed previously gave a glimpse into more relaxed interactions with place that I had been probing for during the photo data interrogation. Finally the last research team to present their photos, Lungta, demonstrated that despite their engagement with the hard work of surviving in their remote village, the young people were still teenagers that sometimes needed to escape their parents, as represented by Lungta’s commentary below about the cave photo shown in Figure 6.27.

Figure 6.27: Lungta’s photo of the cave that is the teenagers’ retreat.

Lungta (via interpreter): This one the rock looks like a cave.
Researcher: OK, why is that special? What’s important about that?
Lungta (via interpreter): They say if feels nice.
Researcher: What makes it a nice place to visit?
Lungta (via interpreter): And when their mother and father call them, they run and just hide over there. (Lots of laughter)

Lungta’s example of the cave in Figure 6.27, as the only identifiable teenage escape amongst all the photos the adolescents in India collected of places they valued, reinforces my earlier observations that adolescents in India are positioned differently within their society, which in
turn influenced their place engagement to effect a dramatic contrast with previous place studies of affluent minority adolescents.

Section summary

The key interactions with the places the adolescents in India valued were those related to connectedness and nature appreciation. The young people portrayed a strong sense of belonging and identity with the places of their lives and their community. Blended with this was an appreciation for nature that their lives were intimately entwined with. The adolescents’ place relationships were dominated by their context, with a preferencing of place interactions that contributed to the collective wellbeing of their community, and demonstrating little evidence of the carefree socialising noted in affluent minority adolescents’ lives.

In the following chapter section I now turn to considering the significant role nature played in the lives of the adolescents in remote India.

Positioning of nature in their lives

Evident from the young people’s photos and stories recounted in this chapter, the adolescents in remote India lived immersed in the natural world with their lives constantly connected to their natural surroundings via their subsistence farming lifestyle and through their spiritual connections with nature. It was obvious they had an ‘intimate knowledge of their ‘patch’ from where to keep cool when hot; to where to see the best views, an interesting coloured rock or ant nest; and which stinging insects to avoid.

As will be recalled, the India adolescent co-researchers photographed many close-up details in their photo data collection in addition to photographs of places. In fact over half of the 466 photos taken by the young people were close-ups of place details, not specifically places themselves and therefore not included in the place analyses reported in this chapter. This intimate, sensual knowledge of the detail, often biodiversity detail, of their local places is in itself a point of note. These nature ‘close-ups’ showed a huge range of plant varieties (food, medicinal, crop) and a diversity of small creatures such as spiders, butterflies, land crabs and a
bearded dragon. My young research partners displayed their photographs of the unique plants and animals from their area with much pride.28

The young researchers’ explanations indicated they took close-up photos of natural aspects of their world because they liked the colour of a grasshopper, the look of an ants’ nest, the sound of pigeons cooing, the smell of a flower, the reflections the water made trickling across rocks, or just because they enjoyed something in nature they wanted to share with the research team. They evidenced a profound knowledge and appreciation of nature and, as their earlier reported commentary about the impact of the landslide indicated, an understanding of the dynamic systems of nature. Such comprehensive knowing of nature Orr (2001) identifies as an ecoliteracy capability. Orr has raised concerns that modern lifestyles are disconnecting people from nature such they are becoming “ecological yahoos” (2011, p. 252). The adolescents in India were the antithesis of ecological yahoos. Their connectedness with nature was apparent though the variety and detail displayed in their photographs of the sometimes astonishing natural elements of their area. An exemplar is the huge butterfly shown in Figure 6.28.

The butterfly photographed in Figure 6.28 was one of the many varieties of butterfly the adolescents in India photographed. Similar variations in species documented and identified by the young researchers demonstrated their expert ecological knowledge. Gold and Gujar (2007) and Tilbury et al. (2002) also note the highly developed ecoliteracy of people in other remote regions of India, suggesting this is a widespread trait of the people of these areas.

28 Refer to Appendix M for the initial frequency distribution graph of the India students’ photographs that categorises both places and place detail (spiders, food plants, farming tools, etc.).
The adolescent researchers’ ecological knowledge was discernable through their photo data and interpretations of this. They also delighted in the natural elements of their world as represented by Laxmi’s photograph of a grasshopper in Figure 6.29 that was described as a wonder of nature:

Laxmi (via interpreter): That is grasshopper.
Researcher: Oh, a grasshopper. So what’s important about a grasshopper?
Laxmi (via interpreter): He is saying the colour. This grasshopper has two different colour – one is green and the other is a golden and black, so its looks a nice colour.
Researcher: A nice coloured grasshopper.
Laxmi (via interpreter): A natural creation, the gift of natural. They enjoy the jumping.
It was apparent that the adolescents’ spirituality was embedded in nature. This was not just through the visible community places such as the temple that was referred to previously in this chapter. The small, everyday spiritual connections with nature were also illustrated through the young people’s photographs and narratives; such as the identification of a special flower grown to give to a brother by his sister as part of a particular festival, or the everyday shrines such as in Figure 6.30.
The small shrine photographed in Figure 6.30 Lungta describes as “Here the travel people use to worship - fire gods, other gods so this is one place outside of their house to worship the nature.” This visible interweaving of spirituality with nature is unique to the culture while also analogous to indigenous ways of being connected to the land recognised in other indigenous contexts (see for example Rose, 2013; Wheaton, 2000).

Thomashow (1995) advances an ecological identity as a self-identity variant that incorporates nature as an integral element of self identification. The ecological identity of the adolescents in India was discernible through their connectedness and interactions with nature as described in this chapter. The young people demonstrated an “intimate knowledge” (Orr, 2011, p. 252) of their natural surroundings; an everyday appreciation of how nature supported their lives; and a pride and sense of identity with the nature of their area, an ecological identity, as was exemplified by Hima’s explanation of a particular spider that was “no ordinary spider you can’t find like this in the region”

The elevated position of nature the adolescents assigned in their lives was discernable through their focus in their photographs on aspects of nature. Their photo data captured the nature nooks and crannies and expert knowledge of plants and animals that were only possible through a highly developed ecoliteracy and an ecological identity. A measure of the high status position of nature in the adolescents’ lives is shown through Figure 6.31 that compares the definable place descriptive statistics with the place plus nature elements statistics for all the photographs taken by the adolescent researchers.

Figure 6.31: Comparison of places with and without the addition nature close-up photos.
From Figure 6.31 it can be seen that consideration of the adolescents’ nature close-up photographs in the descriptive statistics portrays the elevated position they placed on nature in their lives, when the constraint of an inclusion of a place spatial dimension was removed (necessary for the earlier analyses of places valued by the adolescents in this chapter); arguably demonstrating a more realistic picture of the young people’s positioning of nature in their lives.

At this point I return to my observation that although the young people enjoyed a high degree of nature connectedness this was not the idealised nature frolic characterised in affluent minority childhood-nature discourses (Munoz, 2009) to stress the noted difference between the nature connectedness observed of the adolescents’ lives in India in comparison with young people’s lives in other contexts. The final photograph displayed from my young co-researchers in India, of the ‘subway’ shown in Figure 6.32, exemplifies this disconnection.

Figure 6.32: Chhetri’s photo of the ‘subway’.

Initially Chhetri’s explanation of the forest ‘subway’ depicted in Figure 6.32 as a place “To go inside it to the subway. To walk in.” appears to demonstrate a lovely place to walk amongst the forest. However Pabitra then commented that this was for access “Just for to take the wood or something. They use to go into the forest” that revealed the subway as a place to struggle through to collect firewood for cooking or fodder for the animals, portraying the harsh realities of the young people’s nature-connected lives.
Section summary

In this chapter section I have explored the position of nature in the adolescents’ lives in India demonstrating that nature is integral to their way of being in the world. The young people displayed an intimate knowledge and an appreciation of the natural elements of their surroundings. This strong connection with nature characterises the adolescents in India as highly ecoliterate with an ecological identity.

I now turn to the final section of this chapter to explore the processes of environmental learning associated with the adolescents’ ecoliteracy development.

Environmental learning

Environmental learning was defined in Chapter Two, Literature Review, as learning that develops from engagement with the environment or environmental topics. In this chapter section I briefly explore the processes associated with the India adolescents’ learning about and in their environment.

Learning, education and schooling are closely linked but are not necessarily the same. I noticed a vast difference between the education the adolescents in India engaged in and the environmental knowing they evidenced through their explorations of place during the research activities. Gold and Gujar (2007) characterised rural schools in northern India as a formal, regimented echo of colonial British approaches. I recount in my field note my first impressions of the authoritarian ethos of the village schools (primary and secondary):

Field note: Tuesday 25 morning – very hot and sunny

The plan was to walk to the primary school and set up our activities (volunteer program) for the children before school but the children arrived soon after us and were standing lined up in the hot sun. They commenced the day with a very formal and reverent prayer and hymn session that was run by the head boy of the secondary school. Despite the heat, the students all stood to attention like soldiers.

Once recruited, the adolescent researchers relaxed into their role, freely roaming the village and surrounds collecting their photo data. I looked around their school as I recount in another field note:
Field note: Tuesday 25 after lunch – starting to cloud over

Lunch was at the secondary school just around the hill – a much welcomed rest, plus the clouds had appeared so conditions were not as hot without the sun. I looked around the school. Only four small spartan classrooms. I noticed a few stacks of dog-eared textbooks that looked like something that was old before even I went to school!

While my young co-researchers were out collecting their photographs, I involved myself in the activities with other school students who had come from all the neighbouring schools for our volunteer group visit. This field note recounts one such activity:

Field note: Wednesday 26. Clear sunny morning after the rain from the storm last night – warm morning but obviously a very hot day on the way

First teaching rotation was a fantastic session on a minibeast hunt with the middle school aged group. I felt like the pied piper! The area around the high school building was a much more rich area to explore than the primary school yesterday. The students kept bringing me lots – grasshoppers, spiders, flowers, etc. and we counted legs, feelers, petals, etc. plus colours. Even found a big bearded dragon and had great hilarity when one girl brought a kid (goat). So then we had to find the pig, the hens and rooster, more kids. Great fun and then went back and drew pics of what we found.

It was very noticeable that the young ‘minibeast’ hunters engaged with learning about aspects of nature in a totally different way to their usual school processes that I observed in the school assembly and with their teachers. In class the students sat listening attentively and happily chanted words or instructions back to the teacher.

The animation of the young ‘minibeast’ hunters of the morning was in marked contrast to working later in the classroom with my young co-researchers when we were interrogating their photos of places as my field notes describe:

Fieldnote: Wednesday 26 September. Still hot.

Working with the research students and their teacher to discuss the photographs the young people had taken was a bit like a time warp experience. Before entering the room, each student performed a small bow and asked “Permission to enter”. Then when I spoke to the students they leapt to their feet to reply. I aimed for a more relaxed atmosphere and asked the students not to worry about standing to answer questions; Bhaskar (my guide/interpreter) helped but I am not sure the students knew what to make of me. I was very aware of being hot and sweaty in my tee shirt, shorts and hike boots after the morning activities, while the students and teacher were in much more formal clothing. Eventually, with all the laughter about so many photos related to food, the group atmosphere became more comfortable. They were very patient and generous with their time.

The knowledge, excitement and joy in the natural environment the students in the ‘minibeast hunt’ activity demonstrated, and the biodiversity knowledge and appreciation evident in the young co-researchers nature close-up photographs and commentary, were totally different to
the schooling processes I had observed. Much of the schooling appears to be conducted by rote learning. The disconnect between learning in the classroom and learning in nature was obvious. The everyday environmental knowledge my adolescent research partners displayed was not connected to the formal, technical learning of the classroom, not an uncommon phenomenon according to Bernstein (1999).

Indigenous ways of learning and knowing, particularly relating to ways of knowing the land, have been identified that are different to traditional education/school learning (Wheaton, 2000; Yunkaporta & Kirby, 2001). This indigenous way of knowing described by Wheaton and Yunkaporta and Kirby suggests a similar process for the India adolescents’ environmental knowing. This contention accords with Gold and Gujar’s (2007) findings regarding the transmission of environmental knowledge in remote northwestern, herding communities in India. Gold and Gujar identified family instead of school as the mediators of environmental learning, which gestures towards the environmental learning processes involved in this similar context in northeastern India. Accordingly the expert ecoliteracy exhibited by the adolescent participants in this research in remote India suggests the involvement of socially mediated, indigenous ways of knowing as the foundation for their environmental learning processes.

**Chapter Conclusion**

In this chapter the findings about the places that matter to adolescents in the remote village in the Eastern Himalayan region of India were presented. The places that the young people valued were predominantly village-centric; their homes, community places and the surrounding farm areas. The young people recognised their connectedness and dependence on home- and village-supportive places inherent in their subsistence rural lifestyle, and demonstrated their understanding of the work involved in sustaining their community. This place preferencing and place engagement is consistent with their contextual values based on collaborative community interdependency. Thus, places associated with the collective community good were high in their preferences. This contrasts with past place research in affluent minority contexts where more individualistic place preferences dominate.

The places the adolescents in India valued were frequently related to the supply of basic physiological needs such as food and shelter but places that met psychological needs related to belonging, spirituality and identity were also recognised as important. The young people’s lives were demonstrably enmeshed with nature. Their homes, community, farming and relaxing areas were all either close to natural places or were wild places, with the adolescents
displaying a deep and intimate knowledge, or ecoliteracy, in relation to the natural elements of their surroundings. This nature connectedness was not carefree as characterised by some romanticised, affluent minority views of childhood-nature connectedness. Instead the harsh realities of survival factored into their links with nature. The adolescents’ remote rural lifestyle is suggested as mediating their expert ecoliteracy through a social, indigenous way of knowing nature.

In summary the findings from the research with the India adolescent co-researchers are:

- Home and community places were most valued;
- Predominant place interactions were centred around village-centric values;
- The adolescents were positioned within their sociocultural norms as dutiful, interdependent members of the village community;
- Their lifestyle was intimately connected with nature, so the adolescents were highly ecoliterate and evidenced an ecological identity;
- Their rural situation is a harsh reality far from the romanticised affluent minority conception of an idyllic country life; and
- The adolescents’ environmental learning was through an indigenous, social-mediated way of knowing nature.

These findings somewhat support my theoretical model of factors that mediate place engagement as defined in Chapter Three. The adolescents’ socioecological system and psychological place relationship factors strongly influenced their valuing of places – the places that in turn influenced their development, wellbeing and learning. Adolescent lifestage factors did not seem to have a big impact on the adolescents’ place-making activities. Adolescents are positioned differently in the culture in India when compared to other contexts, which suggests my theoretical model factors related to adolescence have an affluent minority bias.

These findings also point to a major blindspot in conceptualisations of adolescence-place relationships. The less-privileged majority world evidence from this research indicates a distinctly different adolescent way of relating to place when compared with the literature (Kaplan & Kaplan, 1995, 2002) that has an emphasis on affluent minority teenagers developing individuality and independence. Allied with this is the discord between affluent minority romanticised views of young people frolicking in nature when outdoors and the harsh reality of the nature-connected, less-privileged and rural majority adolescents depicted in this study.
In the following chapter, Chapter Seven – Places that matter to adolescents in Melbourne, I will similarly explore the places valued by the Melbourne adolescent co-researchers from the Green School and Blue School.
CHAPTER SEVEN
PLACES THAT MATTER TO ADOLESCENTS IN MELBOURNE

Introduction

This Chapter continues the exploration of my adolescent co-researchers’ findings, shifting focus from the India research of Chapter Six to concentrate on the Melbourne Phase 1 and 2 research activities; that is the Melbourne-based ‘photovoice’ activities and research team Think Tank meetings. This chapter examines the data through the research question lenses of identifying adolescent places, discerning place engagement, positioning of nature and environmental learning. In this way the research questions inform the chapter structure as is depicted in the data chapters map in Figure 7.1. Accordingly this chapter initially focuses on the young co-researchers’ data about the places they identified as significant in their lives. Then follows an exploration of their modes of engagement with their significant places, incorporating how they interact with place and their relationships of place. Thirdly the positioning of nature in the adolescents’ lives will be considered and the final section of this chapter targets place-related environmental learning.

It will be recalled that the adolescent co-researchers in Melbourne were drawn from two schools: a traditional, independent school in this affluent minority setting of Melbourne, Australia, (the Blue School); and another school (Green School), also an independent or non-government school, that differs from the Blue School in that it is founded on an ethos of sustainability. The logistical barriers inherent with the India School research site were not an issue with the situation of the Melbourne schools. The relatively easy entry into the field of the Blue School and the Green School enabled an extended period of research activities with the Melbourne-based young researchers. In fact the research activities with the Melbourne schools continued beyond those originally planned, as engineered by the adolescent researchers in line with devolving power to the young participants when employing a ‘child-framed’ methodology, as described in Chapter Four, Methodological Approach.

29 It will be recalled that it was beyond the scope of this research study to keep revisiting the village in India for ongoing research activities with the young co-researchers.
The research activities with the Melbourne co-researchers extended over a 12 - 15 month period. This incorporated nine months of interactions via the private group Facebook site [Research Phase 1]; periodic Think Tank team meetings over six months [Research Phase 2]; and continued occasional communications via email about the survey and administration of this final research phase for the last few months of data collection. In the course of these activities the young co-researchers contributed 178 photos to the group Facebook site or via direct file transfer during the Think Tanks, and approximately seven hours of their thoughts on the places that matter to adolescents (four Green School and three Blue School Think Tanks). Additional data included any Facebook commentary, some checking and clarifying email

*Figure 7.1: Data chapters map indicating this chapter in relation to the other data chapters.*
communications that occurred in the later stages of the research in response to the young people’s suggestion for use of this mode of communication, and my field notes.

There were four young people who volunteered as co-researchers from the Blue School\(^\text{30}\):

- Flint, a 16-year-old male who was a key informant in the research, conscientiously attending to all research activities;
- Coral, a 16-year-old female who was a regular contributor to the Facebook interactions but with competing commitments did not attend all Think Tanks meetings;
- Sapphire, a 16-year-old female who turned 17 over the course of the research activities who was an intermittent contributor to the activities; and
- Micah, a 14-year-old male who was an active Facebook contributor but never made it to the Think Tank meetings, in part due to a family move away from the area with the start of a new school year during the research the activities.

At the Green School there were five co-researchers:

- Ruby, a 14-year-old female who was an active contributor in all research activities;
- Pearl, a 14-year-old female who was an active contributor in all research activities;
- Jade, a 14-year-old female who was an active contributor in all research activities;
- Jewel, a 14-year-old female who was an active contributor to early research activities but had disabled her Facebook account so was unable to engage with the research team through this communication tool, plus as an exchange student from Germany, she departed from Melbourne part way through the research activities; and
- Jasper, a 13-year-old male who turned 14 during the course of the research activities, who preferred more of an observer role in Think Tanks meetings and did not have a Facebook account, so was unable to interact via the team site.

I now present the findings from the adolescents’ research under the areas of interest in this study as articulated in the research questions: namely adolescents’ valued places, patterns of interaction with these places, positioning of natural places in their lives, and environmental learning, as outlined in the flow chart map of the data chapters in Figure 7.1.

\(^{30}\) Pseudonyms are used for all parties in the research.

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**Valued places**

In this first section of data presentation, I detail the places my young Melbourne co-researchers identified as important to them as they engaged in their daily activities. As well as everyday places, the young people also shared photos from their phones and files of photographs of other places they valued including special holiday places. These special places allowed an insight into adolescents’ place identity and by extension self identity processes (Korpela & Hartig, 1996; Korpela, Kyttä, & Hartig, 2002; Sommer, 1990) that were revealed through the young people’s interrogation of their photos in the research team Think Tank meetings. The Melbourne adolescents’ valued places were more diverse than those of the adolescents in India with the addition of more ‘teenage’ places such as places to gather with friends and places to enjoy energetic pursuits. This accords with the greater geographical range and lifestyle opportunities available to the affluent minority Melbourne adolescents than was possible for the young people of the remote village in India.

In this chapter section I present the places the adolescents in Melbourne valued by key themes, commencing with the family unit *homeplace(s)*. An exploration of the place types that aligned with stereotypical, affluent minority, teenage places – places to gather with friends and to be active – follows. The more understated but still influential natural, restorative and cherished places the adolescents valued are then considered to conclude this chapter section outlining the young researchers’ valued places.

Home and locations that act as an extension of the family home base, and their school dominated the places valued by both Blue School and Green School researchers, as can be seen in Figure 7.2 that displays the types of locations the young people valued. Their privileging of home is consistent with affluent minority adolescents in other times and places (Abbott-Chapman & Robertson, 2009; Korpela et al., 2002; Owens & McKinnon, 2009; Sommer, 1990). However the Melbourne adolescents’ strong preference for their school as one of their valued places evident from Figure 7.2 is unique in comparison with past adolescent place studies.

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31 As noted in the previous chapter presenting the data from India, I use the term *homeplace* to represent the location base of the family unit that incorporates the family house (or houses) and outdoor extensions of this base.
I now turn to revealing the details of the places the Melbourne adolescents valued, commencing with their *homeplace*.

**Homeplace**

It was evident that all the young Melbourne researchers viewed their family home and, in particular their personal bedroom space within the family home, as important to them. This is consistent with a persistent trend of bedrooms as significant in affluent minority teenagers’ lives observed in studies of adolescents’ important places (Bloustien, 2000; Hodkinson & Lincoln, 2008; Owens & McKinnon, 2009). The importance of the teenage bedroom is represented in Ruby’s photographs of her room shown in Figure 7.3.

*Figure 7.2: The locations valued by the two groups of Melbourne co-researchers.*

![Figure 7.2: The locations valued by the two groups of Melbourne co-researchers.](image)
The detail of the ‘inspiration wall’ in Ruby’s bedroom shown in Figure 7.2 demonstrated her interest in fashion and design as she described during a research team meeting:

Ruby: In my bedroom I have this cupboard and this year recently, I cleared it out. I use to; I don’t really go there much anymore. I want to be a fashion designer and I always design clothes and stuff so I cleaned this out.

Researcher: So that’s a whole lot of magazine clippings?

Pearl: She’s obsessed.

Ruby: Yeah, magazine clippings and stuff.

Researcher: So that’s an important corner in your room?

Ruby: Yeah, for inspiration and stuff. It’s my own girly plan.

Like many teenagers’ bedrooms, Ruby’s is decorated to demonstrate her ownership and identity, an “exhibition of self” (Hodkinson & Lincoln, 2008, p. 36). Adolescence in affluent minority worlds is portrayed as a time important for intentional striving towards self definition (Hall et al., 1999). Adult recollections of the special places of childhood indicate the powerful influence these places have on the development of ‘self’ (Sobel, 1990). Ruby’s bedroom demonstrates her conscious shaping of her self concept as a fashion aficionado.

Jewel (on exchange from Germany) goes further to articulate the comfort she derives from the links with her childhood and symbols of self-identity her bedroom provides as shown in Figure 7.4:
Researcher: Is that your room at home in Germany?
Jewel: Yeah. And it’s actually really small and I found out yesterday that we may have to move houses. We’ll stay in the same area but we have to move houses because my grandmother here, she doesn’t want to live alone anymore because she doesn’t go outside at all, so she wants to live with us now in Germany. So we don’t have enough room, so we’re going to have to move houses. I don’t know, I just…I am annoyed a bit with the room because it’s so small because I’ve been in this room...but I’m kind of attached to it coz at the very back there’s a Mickey Mouse lamp and I designed this room because my parents designed the house a bit and I chose the lamps and everything when I was 5 so the lamp in the middle of thing is a clown lamp and everything. So it’s full of childhood memories and under my bed there’s a guinea pig cage which is huge, it’s taken up all the space. I sleep on the floor now because my bed’s too small and I can’t get a new bed in.

Researcher: And you haven’t been there for a year so you want to go back to that special place?
Jewel: Yeah, so I found out that we’re probably going to move in February already because my grandmother wants to come in April and we’re going to rent the house out probably. So I’ll still be able to see it but I think I will miss it. I’ll get a bigger room but I’m still going to miss it because it’s full of childhood.

Jewel was evidently concerned with the threat to the security of this foundational space in her life, a ‘keeping place’ of her childhood. Jewel’s perception of her bedroom as a ‘sacred’ place is consistent with Chawla (2002) and Owens and McKinnon’s (2009) descriptions of other young people’s symbolic places. As one of her special places, Jewel’s bedroom is linked to her self identity (Korpela & Hartig, 1996; Korpela, Kyttä, & Hartig, 2002; Sommer, 1990) but the tension between her images of her childish self and her teenage self is noticeable. Brown et al. (2002) portray adolescence as a time of separation away from the family unit. Jewel’s oscillation between her different constructions of self is consistent with her adolescent developmental processes associated with self determination, in which her bedroom plays a key role.
In addition to bedrooms as personal spaces of ownership and comfort, they were also discernible as technology hubs, as represented by Flint’s photograph of his computer in his bedroom that was a focus for him during an examination period when he took the photo displayed in Figure 7.5.

Figure 7.4: Jewel in her bedroom, her ‘keeping place’ of her childhood memories.

Figure 7.5: Flint’s bedroom photograph centred on his computer.
Increasingly young people’s bedrooms are recognised as places to access technology (Hodkinson & Lincoln, 2008; Staker et al., 2014). Sapphire and Micah also described their bedrooms as places where they did homework on their computers. Sapphire noted “I do a lot of homework by chat.” Earlier in the conversation about bedrooms Sapphire had described her bedroom as her special place where she could “shut the door” and be private. Her description of homework collaboration by social networking however prompts the question: Was she every really alone and private in her bedroom?

It was apparent that not all families allowed the adolescents’ bedrooms to be gateways into digital worlds, which follows recommendations from various health and parenting authorities internationally (Straker et al., 2014). Ruby described her family’s rules regarding technology in the bedroom: “I chose not to take my…well not chose, but agree with the rule that I can’t take my laptop or phone into my bedroom and I find that’s really nice coz when I go to my room it’s like, chill.” Similarly Jasper noted that the game consoles were in the family area of his home and therefore a favourite place; “the lounge room, the couch room with the couch in it, whatever you want to call it, that’s really important for me because it’s a really comfy couch and I have my Wii and game cube in there and I love my games.”

Bedrooms and the homeplace in general were regarded by the adolescent researchers as supportive of their needs, as Ruby described, a place to ‘chill’. Coral proffered her home as “Somewhere I can relax quietly” that she photographed for Figure 7.6.

*Figure 7.6: Coral’s family room in her home, a valued place for relaxation.*
Ruby and Coral’s descriptions of relaxing at home suggest their bedroom and homes as places for what Anthony et al. term a “strategic retreat” necessary for adolescent developmental processes of respite and reflection away from their constantly connected lives (2014, p. 493).

*Homeplace extended (Homeplace +)*

It became obvious that the adolescents’ conception of their supportive and restorative home base was not restricted to the location of the family home but extended to other locations the family regularly inhabited. Places such as Ruby’s family apartment in the snowfields, Pearl’s weekender caravan at a beach foreshore park, shown in Figure 7.7, Jade’s family farm, and Pearl’s father’s house where she spends some weekends. Similarly Sommer’s (1990) study of adolescents in Estonia identified family “summer homes” as places of significance for the young people in addition to their regular home base.

The adolescents perceived these extended *homeplace* locations as important to them and their family as Ruby describes, “that’s where my family bond. I also love it - it makes me feel like I’m on a holiday, when I’m not. It just gets me right from school”. Pearl regarded her cabin at the beach, seen amongst the trees in Figure 7.7, as “my place, that’s my second home.” Where “this is just a great time to just relax, forget about school stuff”

![Figure 7.7: Pearl’s “second home” her family caravan at a beachside park.](image)

The restorative aspects of the family’s extension to their everyday home base appeared to be the prime attraction of these places, which gestures towards an escape from the pressured life
of the ‘hurried child’ as Elkind (2001) characterises modern childhood. Ruby and Pearl were only 14 at the time they made their comments about escaping from school to the beach/snow/bush house; many years away from their school exit exams.

It was also apparent when they described their homeplace extensions that these places often simultaneously held different dimensions of value for them – for Ruby, a family relationship strengthening and restorative place, for Pearl the beach cabin was restful as well as somewhere she identified with.

As well as gathering with family in homeplaces, places to gather with friends, often around school, were very popular with all the Melbourne young researchers, as I will now consider.

Gathering places

Photos and Think Tank conversations about places to ‘hang out’ with friends were most prominent amongst the adolescents’ research findings. As Jewel highlighted “I usually feel most comfortable definitely in my room but also where all my friends are.” Places to gather with friends the young researchers identified included community and sporting locations such as Micah’s photo of the local lifesaving clubhouse, shown in Figure 7.8; a friend’s backyard pool on a hot day; and at the shopping mall Jewel photographed in Figure 7.9.

![Figure 7.8: Micah’s local lifesaving club location, one of his valued places.](image-url)
Micah’s photograph in Figure 7.8 indicated that this was “The clubhouse, where I spend most of my spare time training and patrolling. I go there with my friends and I do life saving there.” When explaining her shopping photograph shown in Figure 7.9, Jewel demonstrated that being with friends was the important aspect of this activity with her comment, “It’s like really social. It’s when you want to have a nice day with your friends. It’s kind of the perfect place to go. I didn’t buy anything but I like just trying things on and goofing around with it.” Again a plurality of place is evident, consistent with Castonguay and Jutras’ (2009) observation of 7-12 years olds’ preference for places that afforded a variety of experiences. As well as providing somewhere to be with friends, the adolescents’ valued gathering places often afforded an activity focus as a place quality, which aligns with their developmental need for stimulating and social activities (Fuller, 2005). These findings also align with the adolescent developmental imperatives and place relationship factors identified as mediators of place engagement in my theoretical model of place interaction, as discussed in Chapter Three, Theoretical Framework.

Gathering places around school were noticeably preferred by the young researchers. Places such as outdoor seating, outdoor sporting areas, the canteen where they purchased lunch and meet up with friends, and the school gym. This is consistent with Tupper et al.’s (2008) findings that high school students perceived the gathering places around school as important. There was also a suggestion of territorial claiming of assorted sheltered nooks where friendship groups gathered as represented by Jasper’s group gathering place photographed in Figure 7.10 and Flint’s in Figure 7.11.
Figure 7.10: The gathering place at school that Jasper enjoyed for the privacy and light.

Figure 7.11: A tucked away place at school where Flint and his friends often gathered.

Flint and his friends appreciated that the out-of-the-way place at school where they gathered, that is shown in Figure 7.11, was “a bit quieter”. While Jasper identified his friendship group’s place depicted in Figure 7.10, as a place for “hanging out there with my friends, and that’s just our ritual spot.” Both Flint and Jasper evidenced adolescent developmental processes of
determining their social position as individuals separated from the domain of parents and other supervisory adults; away from the adult gaze (Sobel, 1990).

It will be recalled that the Melbourne adolescent researchers’ place preferencing contrasted with previous adolescent place studies in the dominance of school as a valued place. Owens’ (1994) study of Sunshine teenagers in another area of Melbourne 20 years prior to this research, reported recreational parks, retail areas and streets, that is neighbourhood places, as places valued by adolescents for places to ‘hang out’ with friends. The findings of the young researchers in Melbourne suggest a shift towards the school instead of community/neighbourhood places as the dominant place for gathering with friends. This finding gestures towards increasing concerns that protective parental approaches are restricting the developmentally necessary ‘separation behaviours’ of modern young people (Clements, 2004; Malone, 2007). Perhaps the school ground has become the new neighbourhood gathering place for affluent minority teenagers. In 2003 Owens noted that adolescents enjoyed socialising at school but otherwise did not rate their school as a valued place, over 10 years later this attitude contrasts with that of the Melbourne adolescents.

It became apparent that online social networking spaces (e.g. Facebook, Skype, Instagram) were also regular gathering places for the adolescent researchers, which aligns with Pawson et al.’s (2007) contention that in response to the increasingly restricted nature of their physical world young people are turning to interacting online. My adolescent co-researchers evidenced an appreciation of the benefits of interacting online, particularly during times of reduced stimulation, when they were ‘bored’, but they preferred face-to-face interactions where possible; consistent with recent survey findings with young people in another area of Australia (NSW Commission for Children and Young People, 2012). Pearl epitomised this in her comment “I feel like I’m just so away from technology when I’m in holiday locations - I feel, like, cause you want to make the most of it all.”

The adolescents’ comments about online interactions drew attention to their recognition of the negative aspects of online interactions as some of the girls explained:

| Jewel: | For Facebook, for example, they judge on the likes, how many likes you have. |
| Rest of group: | Yeah/That’s so true. |
| Jewel: | If you post a status or anything you have to be careful what pictures you use. In Skype if you use your... |
| Researcher: | Skype is just basically talking to somebody? |
| Jade: | Yeah and you do whatever you want and it’s safe. Nobody will judge you and if they do they can’t do much about it. |
Pearl identified differing styles of communication as a measure of how devoted to online interaction someone was, explaining that she thought it was “weird” for someone to have Facebook as their favourite place to socialise with friends. Her indicator scale was how someone would choose to acknowledge a birthday:

When it’s their birthday would you post it on their wall? Would you text them? Or would you say it in person?

Jewel also recognised potentially damaging interactions through social media:

The ones who hide their personality a lot and do weird things, for example on Facebook, and things like that. They’re probably at school begging for an OK from everyone, just so that everyone accepts them. And so they kind of change who they are so that people accept them, coz they think they won’t accept them if they don’t change themselves.

Pearl and Jewel evidenced astuteness about the pitfalls of using Facebook as a gathering place with friends but, as reported earlier, they valued online interactions for when they were “bored”. The adolescents appeared to be adroit navigators of their digital worlds, minimising negative influences in order to gain the benefit of supportive online social interaction, consistent with Pawson et al.’s (2007) portrayal of online social networks as complementary to in-person interactions.

Although the adolescents’ online interactions were obvious through their research activities, they did not rate digital places as a high priority; instead their preferences were centred on actual locations to gather with friends, which were often places that incorporated a physical activity dimension as I now shift focus to consider.

Active places

Physical activity as a focus for socialising with peers was a discernible trend in the places the adolescents valued. Photos of tennis courts, basketball courts, golf courses, the school indoor sports stadium and gymnastics centres were abundant amongst my adolescent co-researchers’ photo data; each accompanied by a story of energetic fun times with friends as represented by the Flint and Jewel’s commentaries about their photos:
One of Flint’s favourite places is the golf course where he goes with “a few other friends who also play golf.”

Jewel noted, “I love the gym because we play dodgeball there.”

Jewel also exemplified the adolescents’ imperative to be active with her photo of the school oval seen in Figure 7.12.

![Figure 7.12: Jewel’s photo of the oval at school.](image)

Jewel explained her attachment to the oval she photographed for Figure 7.12 as; “And that’s the other oval where we sometimes run around. I once ran out there with Rose, like we just ran onto the oval and we were just running around and it just gave me this really free, independent feeling that I could do anything. And it sounds a bit childish but it was really good to just run around and feel the wind in your hair and just enjoy it.” The need to just run around and enjoy the experience Jewel describes resonates with adolescent stimulus-seeking behaviours associated with the process of shaping the adult ‘self’ (Dent, 2010; Spear, 2000).

Natural places rich with stimuli were amongst the young researchers’ valued places as I describe in the following.
Natural places

Natural places, often beaches, were identified by the young Melbourne researchers as places they valued with many attractive beach scenes with sparkling water contributed to the photo data, as represented by Coral’s beach scene in Figure 7.13.

![Figure 7.13: Coral’s beach scene.](image)

Coral comment on her beach scene shown in Figure 7.13, as somewhere she enjoyed for “Having fun at the beach on a nice day”, was representative of all of the adolescents’ perception of the beach as an enjoyable venue for recreational activities. A love of the beach is part of Australians’ cultural identity (Nakagawa and Payne, 2011), a trait evident in the Melbourne adolescents’ photo data.

The Green School students also demonstrated a strong preference for the ‘wildscapes’ of their school ground, particularly the wetlands and the island that Jade depicts in Figure 7.14.
Jade explained her valuing of the wetlands area at school that she photographed for Figure 7.14 with the comment: “I love the walk on the way there. I don’t know, it’s just something about it, and I just love being on there and doing things as well. It’s not every day that your school has an island.” The island was frequently a discussion topic in the Green School Think Tank meetings related to the activities the young people enjoyed on the island and their disappointment with restrictions on access.

The borders of the wetlands where the Green Schools adolescents were allowed regular access featured as one of their preferred places at school. As Ruby commented, “It makes me feel like we’re in Africa or something, like not at school.”

It was also evident that the Green School students appreciated the natural places around their school as a retreat from pressures of class work as I outline in the following.

Restorative places

Teenagers need places to retreat to for reflection and psychological comfort (Owens, 1988, 2003; Owens &McKinnon, 2009). The Green School girls described natural, often secluded places in their school grounds as places they retreated to for psycho-emotional comfort – the tearful conversations of adolescence - and for restoration. This is represented by Jade and Pearl’s conversation:
Jade: Yeah. If I’m getting really panicky about something, she’ll (the teacher) will say go take a walk around the playground, go sit down, chill out.

Pearl: You can feel the tension trying to get the work done.

Jade: ...yeah but if you’re outside everything is more calm and you get rejuvenated and relaxed.

*Homeplaces*, particularly personal bedrooms, were noticeable as restorative places, as described earlier in this chapter. The outdoor areas of *homeplaces* were also discerned by the young researchers as restorative. Flint commented on his backyard as “Where I go for a bit of fresh air.” Jewel contributed her photograph of herself in the backyard on the trampoline shown in Figure 7.15, explaining this as “I guess when I want to clear my mind I go onto the trampoline.” Jewel and Flint’s commentary gestures towards Ryan et al.’s (2010) report of increased vitality in adults after contact with nature.

*Figure 7.15: Jewel on her trampoline.*

Jewel's backyard depicted in Figure 7.15 is another example of the trend noted earlier for the adolescents’ valued places to offer a multiplicity of affordances. In this example her backyard fulfils Jewel’s developmental processes of being active and being restored.

Restoration and reflection activities are adolescent developmental imperatives (Anthony et al., 2014; Owens & McKinnon, 2009) that I will return to in the forthcoming chapter section on
patterns of place interactions related to restoration. Now I turn to the final category of places
the adolescent researchers regularly alluded to – keeping places.

**Keeping places**

It was apparent that some of the places valued by the young Melbourne researchers were
places that held a special significance or memory, aligning with Sommerville et al.’s description
of “old places carried within us” (2012, p. 14). This was particularly noticeable in relation to
special family holidays and iconic aspects of the Green School as the girls described in relation
to the treed entryway Jade photographed in Figure 7.16:

Ruby: Every time I drive up there I’m like, oh.
I just think that’s my favourite part of the [Green School]
landscape because it’s like really unique because not many
schools have that much land that they have a driveway with
trees coming out.

Researcher: So tell me about that, how does it make you feel?
Jade: Different.

Researcher: Different. You like the school to be different.
Pearl: It’s an individual school. It’s not like every other school.
Jewel: It’s like you’re in the middle of the nature and also whenever
people ask me what school I go to and I say [Green School] and
they’re, like, oh that’s the school at the farm place where it’s just
like in the bush. And I’m just say yeah and they are, like, oh my
God that’s so cool. Coz I think that not every school has the
space to have something like that and it’s just something really
special.

Ruby’s photograph of the school entryway in Figure 7.16 was a meaningful symbol for the
young people. The school drive, a poignant reminder for Green School adolescents of the
uniqueness of their school that had survived a closure threat in the year prior to the research
activities, was a ‘keeping place’ of memories and symbolism.
Special holiday places were also advanced as favourite places, with many photos of iconic tourist locations as repositories of memories – memories of happier times before her parents divorced for Pearl and Coral described Disneyland as “one of my favourite places as you got the chance to be a real kid again and not have to worry about anything but which ride you will go on next.”

Multiple layers of engagement existing for the one place were often evident, both from different individual’s viewpoints and engagement on different levels by the one individual. For example Jewel described one of her favourite places as the place of her annual family ski holiday. Jewel described this as a place of physical activity, a familiar place for the family and their friends and a place of tradition, of memory, resonating with Massey’s (2005) concept of the ‘simultaneity’ of spaces with different ‘stories’ of place/space simultaneously in existence. Keeping places were often simultaneously symbols and places of active engagement.

Keeping places were conceptual places defined through the second stage recontextualised thematic analysis process outlined in Chapter Four, Methodological Approach. This chapter section presenting the places the young researchers valued has been a mixture of spatial and conceptual places. I now turn to a focus on conceptual places.

Figure 7.16: Ruby’s photo of the entryway drive into her school.
Concepts of place

Leonard and McKnight (2014) advance photo-elicitation as a research method that allows access to memories and reflections about place. Many of the adolescent researchers’ identified places were noticeably spatially orientated; places the young people valued for fairly superficial affordance reasons. With the iterative Think Tank research activities underlying meaning and deeper place relationships emerged. An example of this was the ‘keeping place’ the Green School entry depicted in Figure 7.16 Ruby described earlier. The second stage data analysis for underlying meaning identified places as concepts as well as influential locations.

The adolescents’ valued places presented in this chapter section have been a mixture of places of deep connection and those of a more superficial nature but, nevertheless, types of places that my young co-researchers identified as important in their lives. Distinctly conceptual places emerged as themes in the data as the adolescents explored their conceptual and emotional perceptions of the significant places in their lives. The conceptual places of *Homeplace*, *Myspace*[^32] (bedroom) and places that held memories and places to gather with friends were obvious overarching themes apparent through the second stage analysis. The terms Gathering Place and Keeping Place evolved with data familiarity and resonated with other descriptions of adolescents valued places scholars have used: Owens referred to teens’ “Gathering Places” (1988, p. 20) and both Owens & McKinnon (2009) and Abbott-Chapman and Robertson (2009) referred to places adolescents identified that were layered with memories, or what Massey (2005) describes as storied spaces. Therefore, where possibly from their explanations, the places identified by the young people were aligned with categories of conceptual places significant to the young people. These conceptual places were *Homeplace*, *Homeplace Extended*, *Myspace*, Gathering place and Keeping place. (Special holiday places that were not described as keeping places of memories were separated out into a separate group). Descriptive statistics for the conceptual places able to be recognised from the adolescents’ explanations are shown in Table 7.1.

[^32]: An appropriately descriptive term for the teenagers’ bedrooms that I have borrowed from its other life as an online social network.
Table 7.1: FREQUENCY DISTRIBUTION OF THE ADOLESCENTS’ CONCEPTUAL PLACES

<table>
<thead>
<tr>
<th>Conceptual places</th>
<th>Green School</th>
<th>%</th>
<th>Blue School</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myspace</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>Homeplace</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Homeplace extensions</td>
<td>10</td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gathering place</td>
<td>54</td>
<td>50</td>
<td>21</td>
<td>60</td>
</tr>
<tr>
<td>Keeping place</td>
<td>19</td>
<td>18</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>[special holiday]*</td>
<td>9</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL FREQUENCY</td>
<td>107</td>
<td>100</td>
<td>35</td>
<td>100</td>
</tr>
</tbody>
</table>

* NOTE: Special holiday places that were not Keeping Places but were a distinct category of favourite places were included as a special category for comparison.

The most commonly conceptualised place of both Green and Blue School students was Gathering Place as can be seen in Table 7.1, with this accounting for over half of the conceptual places (60% Blue School and 50% Green School) that were described as deeply meaningful and relational (i.e. conceptual places according to the second stage analysis). Keeping Places were more highly valued by the Green School students while Homeplace and Myspace were the dominant preferences of the Blue School students. The impact of the Green School closure threat may have influenced this group of adolescents to preference Keeping Places, while the Blue School young people may be more connected to home and bedrooms in keeping with their situation of older students focused on their studies. Sapphire and Flint’s earlier report of completing homework and study on their computers in their bedrooms supports this suggestion. The Green School students differed from the Blue School students in their connections to extended family bases. With only a small number of adolescent co-researchers it is unrealistic to make generalisations from this data other than to note the most obvious trend of Gathering Places as the dominant conceptual place. This is consistent with adolescent developmental priorities for engaging in social activities with peers (Berzonsky & Adams, 2003).

Section summary

The places valued by the adolescent researchers have been described in this chapter section. The predominant preferences were for home and places to gather with friends, often at school. The young people’s place preferencing appears centred on their adolescent development processes aligning with my proposed theoretical model to account for place engagement that identifies adolescent imperatives of active experiences, socialising, restoration and autonomy as mediating factors. As Jewel summarised:
(My) favourite place is free, it’s personal, you feel like you can do anything. So you feel independent.

Now having presented the places that the young Melbourne researchers valued; namely their homeplaces, gathering places, places for being active, natural and restorative places, and their keeping places, the next section of this chapter explores the ways the adolescents interacted with these places.

**Interactions**

The previous chapter section elucidated the places that the Melbourne adolescent researchers valued. Two levels of place category were described; substantive or descriptive place groups (Ary et al., 2010) and conceptual places that had been identified from the underlying meaning and relationships articulated by the adolescents in their interrogation of their photo data. The young people’s explanations about their identified important places were frequently centred around the ‘how’, ‘why’ and ‘what’ of place interactions. This chapter section explores the key interaction themes, or overarching categories; about the connectedness and belonging the young people articulated about many of their valued places, about what makes places meaningful for them and about the predominant ways they engaged with places – being active or taking time to ‘chill’. The first type of place interaction to be considered is that of connectedness.

**Connectedness**

A consistent story of interaction related to the young researchers’ valued places was one of connectedness, of a sense of belonging and being part of something – chiefly connectedness to family, friends and school places. Coral typified her connectedness to family when she explained her choice of location in the family home for her exam preparation as “Studying somewhere with nice light and close to other people so I can see what is going on is important!” It was apparent that Coral needed to keep in touch with family activities even when she was focusing on study. Brown et al. (2002) maintain that family and school are young people’s key instruments of support with peers a third layer of support for adolescents in affluent minority contexts. Much of the adolescents’ discourse related to their homes and
bedrooms was about both the place and the people they felt connected to, as was evident from their comments about their homeplaces presented earlier in this chapter.

A sense of belonging to both place and the people of a place was most noticeable when the young researchers’ attention was focused on friendship group ‘territory’ at school. The Green School students in particular held long and revisited discussions about places they identified as ‘theirs’ around the school, where they could gather away from the adult gaze and just be with the group. They were very protective of their adolescent territory as is evident from their conversation about this special place at school that, at the time of this discussion, was located at the back basketball court and surrounds behind the buildings:

Ruby: I recon as you get older you like privacy...
Researcher: Yes.
Ruby: ...not saying anything but ....hee...
Researcher: Because the teachers all walk through there too don't they?
Ruby: We don't like that.
Researcher: Laughs
Ruby: We like to keep away from the teachers.
Pearl: That's why we go to the basketball court.
Researcher: OK.
Pearl: Spread out.
Researcher: The basketball court - is it because nobody really walks past there that much?
Jewel: If they do then you know them.
Jade: We have lessons right?
Researcher: Yes
Jade: We have our teaching time. We need space from the teachers!
Girls Yeah /yeah.
Jade: That's what recess and lunch is for. Teachers shouldn't do that to us.
Pearl: Yeah!
Jasper: That's what everyone needs.

The Green School students clearly identified that the basketball court was where they belonged (not the teachers!). Their preference for a place where they were able to be independent and private is a feature of adolescent place interactions that has been observed in other teenagers (Morrow, 2007; Sommer, 1990).

It was evident that the Green School students in particular felt strongly connected to their school in general and to their adolescent places around school in particular. Ruby exemplified
her strong attachment to school with her post on Facebook of “[Green School], most days of my life I've been here and by far it is the best school ever!!!!!!!!” School connectedness is a common theme in health promotion literature, with a focus on the developmental and wellbeing benefits associated with a sense of belonging to school (see for example Blum, 2005; Waters et al., 2009). From the volume of photo data and the associated commentary it was obvious that school was an important aspect of all the young people’s lives. Their overall preferences of homeplaces followed by school places, as noted in the beginning of this chapter, aligns with Brown et al.’s (2002) positioning of family and then school as the key support structures in an adolescent’s life.

Brown et al.’s proposition that a third level of support for adolescents in affluent minority contexts exists through their peers was a noticeable dimension of the Melbourne adolescents’ lives. Much of the young researchers’ attention was focused on interactions with friends and places that facilitated this – places for fun and activity with friends, and places to retreat to with friends (and at times family). It was evident that sometimes the interactions with friends were the key feature of the photo data, that the place was in fact irrelevant. As Figure 7.16 shows, despite the caveat of location photographs only, some photo data collected was of the young researchers clowning around for the camera in front of a number of different place backdrops. Through images such as Figure 7.17 the adolescents illustrated their prioritising of socialising and the places that afforded these activities, aligning with Owen’s contention that places for socialising are important for adolescents’ developmental processes (1994, 2003), and also supporting my theoretical framework that identifies adolescent imperatives as mediators of place engagement.

![Figure 7.17: Jade’s photo of Ruby and Pearl fooling around for the camera at school.](image)
Having explored socialising as a key place interaction of the adolescents I move now to briefly consider the adolescents’ physical activity interactions with place.

**Being active**

Physical activity was often noticeable as an integral dimension of the adolescents’ socialising activities. The basketball court, soccer ground, tennis court or open space for just running around with friends have been described as valued place interactions in previous sections of this chapter. Mannion et al. (2006) have also observed that young people value interacting physically with their important places. Pearl’s “second home”, her family cabin at a beach holiday area she describes as a place infused with fun activities with friends:

> Normally the beach is the place. That’s where all go down kayaking, we have a kayak. Riding our bikes around, playing midnight ‘tiggy’ and just going to each others’ houses and playing COD (computer game) and watching television. We just go to each other’s caravans and hang out and talk.

Jewel describes almost a compulsion to keep moving, as befits her developmental needs:

| Jewel: | Like when we were out on the island we were just walking in circles kind of and we had this moment when we were showing each other our dance skills which was kind of funny. And there were these ropes [a ropes course] and we were jumping up and down on the ropes. |
| Researcher: | So actually moving around doing things is important? |
| Jewel: | Yeah, coz if you just sit there, like, most of your day just sitting there watching TV or something, it’s just not as fun as when you socialise and do things when you socialise. |

Pearl and Jewel’s accounts of places to be active as well as to socialise highlight once more the plurality of place engagements associated with places the adolescents’ valued, extending on Castonguay and Jutras’ (2009) observations with younger children whose valued places were layered with affordance. A layer of place interactions that became evident through the second stage data analysis for underlying meaning were the people-place relationship interactions I now move to consider.

**Place-making**

It will be recalled that many of the places identified by the young Melbourne researchers as significant to them were invested with meaning - as keeping places of memory or symbolic
meaning and as places that help define who they are and their place in the world – consistent with the theory of people-place relationship constructions toward the development of a sense of place (see for example Kudryavtsev, 2011). Already examples of the adolescents’ place-making interactions, such as Ruby’s fashion design inspiration wall in her bedroom, Jewel’s childhood symbols in her bedroom in Germany and Flint’s friendship group’s gathering place at the quiet steps area at school have exemplified the adolescents’ place-making interactions.

Further examples of places of meaning and identity were evident in the narratives about personal and social group territory at school that were important to the young people, as represented by Jasper discussing his chair that he photographed in Figure 7.18:

Jasper: It’s my chair.
Me: So tell us why this is so special.
Jasper: Because it’s my spot, and it’s my chair, and my chair is my ....
Jade: Kingdom.
Jasper: Yes.
Researcher: So that’s your territory – so it’s important to have your own space?
Jasper: Yes.
Researcher: Tell us about that.
Jasper: Well cause I like my space, and I like my privacy and I like just having somewhere that... that belongs to me – well it doesn’t belong to me – the chair – but it’s .... in that chair.

The other young researchers echoed Jasper’s sentiments about the value of places at school they identified with, contributing photographs similar to Jasper’s chair in Figure 7.18 of photos of groups of chairs, form/home room and their lockers. Through these place descriptions the adolescents represented the layering of meaning and identity over the physical dimension of the place. As Malone (2007b) contends, a ‘child space’ is both a practical place and a subjective concept. This also resonates with my theoretical model of sense of place factors that mediate place engagement.
The young people’s place-making interactions were discernable as an individual subjectivity through Jasper and Jewel’s photographs of the same location, the deck chatting area adjacent to the back basketball court, showed from their different perspectives in Figure 7.19. Jewel narrowly focused on just the deck, as can be seen on the left of Figure 7.19, perceiving the location as a key socialising area. Jasper photographed a different perspective taken from the edge of the basketball court incorporating a broader focus on the whole area as the place for their social group enjoyed a range of activities, sport, seclusion and chatting. Jasper and Jewel demonstrate in Figure 7.19 a simultaneity of place stories anchored to the one location that gestures towards Masey’s (2005) notion of the relational constructedness of perceived space.
Masey portrays place-making activities such as the meaning and identity construction of territorial spaces as dynamic and constantly being reworked (2005). This was evident in the shift of the Green School students group territory from the basketball court they passionately declared as their place to have time away from teachers and classes, to a sheltered alcove outside the another building in the new school year. Ruby and Pearl explained: “The basketball court to us isn’t as important.” “No, we never go there.” Clearly exemplifying Bronfenbrenner’s (1979) conceptualising of time as a socioecological influence on development.

It will be recalled that a second stage analysis of the data revealed underlying meaning and place relationships evident from the visual information of the photo data and the young researchers’ perceptions and conceptions of the value of their nominated special places. The majority of the Melbourne adolescents’ important places were valued by them for what the places provided for them, the affordances of the locations (Gibson, 2000), as is displayed by the frequency statistics presented in Figure 7.20. In Figure 7.20 it is obvious that the Blue School adolescents predominantly perceived their important places as an affordance (68% of all their relationally conceptualised places) and evidenced limited interactions related to place meaning or identity. In contrast the Green School students often perceived their relationships with their valued places as more significant, with only 38% as places described primarily of affordance while they perceived 35% of their valued places as invested with meaning and 12% connected to their identity. It appears that place interactions related to meaning and identity were more evident in the Green School than the Blue School students’ place engagements.

![Figure 7.20: Frequencies of the relational places identified by the Melbourne adolescents.](chart.png)
Having explored the adolescents’ physical and relational interactions with place I now turn to the last key theme of place interactions they displayed, places that were valued for restoration.

**Places to ‘chill’**

The adolescents’ valuing of places they could retreat to for restoration and psycho-emotional comfort was a discernable trend in their place interactions. As Jewel explained “I know as a teenager it’s really important to have somewhere to go when you’re stressed or upset”, giving voice to an adolescent developmental imperative for time to take a strategic retreat from their active lives for needed restoration and reflection (Anthony et al., 2014; Owens & McKinnon, 2009). The places valued to ‘chill’ were varied as is represented by the conversation between the Green School students:

| Pearl:          | If someone’s having a bit of an emotional time, you don’t want to be around everyone I guess. |
| Researcher:     | What other places do you use like that?                                                      |
| Jade:           | We just walk around.                                                                           |
| Researcher:     | Just walk.                                                                                    |
| Jewel:          | I think that’s why we all love the oval and the island so much, like we can’t go over to the island but it’s more like an escape spot so if you are really struggling you just have so many places as you can go to and just relax. |
| Researcher:     | OK. What about the boys Jasper?                                                               |
| Jasper:         | We usually hang out in different groups. We all just throw the basketball and play basketball. It’s like groups. |
| Researcher:     | OK. So the boys don’t tend to go somewhere to want to talk about things?                      |
| Jasper:         | Well usually...boys don’t want to talk about anything, we just punch each other.             |

Jasper in his facetious way was highlighting the difference between the boys and the girls’ restorative interactions with their valued places. Flint at the Blue School supported Jasper’s thinking that boys deal with emotions differently to the girls, seeking out places to be active with friends to get over emotional times with his comment:

| Flint:          | I don’t do a lot of peaceful and quiet time, that kind of thing. I just go with friends, I much prefer to be with friends than being alone |
| Researcher:     | I see. I had some, girls mainly, actually say that when they’re stressed out or angry or something, just going outside and just sitting quietly sort of calms them down. |
Flint: I get stressed pretty easily but I don’t really have to relax anywhere, I sort of go with friends and do something, take my mind off it.

Gender differences in place valuing from past adolescent place studies has been inconsistent: Sommer (1990) observed that boys preferred natural places more than girls but Abbott-Chapman and Robertson (2009) noted the opposite. The female adolescent researchers in this study described their restorative places in affectionate detail. Jade’s family farm was “rejuvenating” for her as she described:

Jade: For me at my farmhouse, when I’m up there I just feel like it’s a breath of fresh air. I feel like I can be by myself.
Researcher: So an escape you were talking about before?
Jade: Yeah exactly, an escape. If I’m having a problem at school I’d go to my farmhouse at the weekend and think well this is a nice break, go on the ute and just ride around. To me it’s just really special coz I feel I can sort of escape. I feel like that’s my time of escape. So I’ve got all this homework and I’m starting to panic and I need to calm down, so I jump in the back and we go for a ride, look at the cows and look at the farm and go on a road next to it, and he (her father driving) goes really fast and you sort of feel like – it’s escape.

Jade’s view from the back of the ‘ute’ (utility truck) is shown in Figure 7.21. Similarly Pearl photographed a view of her favourite restorative place, her backyard tree, seen in Figure 7.22. Jade, Pearl and others amongst the female Melbourne researchers identified natural places as restorative consistent with other studies that have demonstrated that teenagers perceive nature as a place of renewal (Wals, 1994, Owens & McKinnon, 2009).
Pearl represented her restorative interactions associated with her special backyard tree (shown in Figure 7.22) as one aspect of her strong connection to this special place in her life:

Pearl: That’s the tree. I have so many memories up there. When I had a tantrum or wanted a bit of cry, I’d climb up my tree and I’d sing up there and write stories and I’d take a whole bag of stuff and I’d climb up and just do all the activities up there.

Researcher: So do you still go up there?

Pearl: Yes. I went up there a few days ago. It’s a thinking place as well, definitely.

Researcher: A thinking place. Can the rest of the family find you?

Pearl: Yeah, yeah, they know.

Researcher: They know you’re there but they’re not going to...

Pearl: They have to come forward, they have to come forward to see me up there. Like climb right up.

Researcher: But they never climb right up there? So you’re pretty private up there?

Pearl: Yeah, it’s just the fresh air and everything. It’s great. I bring my friends up there as well.
Pearl obviously valued her tree for a multiplicity of reasons suggesting that the layering of place interactions strengthen the place connectedness. In this instance Pearl sought her tree for restoration, it is a keeping place of memories, occasionally she used this as a base for socialising and also described a place, and therefore self, identity aspect to her interactions with her tree. Her adolescent processes and place relationship factors mediate her engagement with her tree contributing to her development and wellbeing consistent with my theoretical model.

In total contrast, use of digital spaces for strategic teenage retreat time, was described by some of the young researchers. Both Ruby and Jasper explained the restorative benefits of online interactions:

<table>
<thead>
<tr>
<th>Name</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jasper</td>
<td>If I want to clear my mind I go on my computer and play [game title]. I like to practice running and stuff but I also like to stay at home and nerd out.</td>
</tr>
<tr>
<td>Ruby</td>
<td>I’m the same sometimes. If I’m sick of everyone then I go into Minecraft or something. I just go and play on games because it’s just like you are not in the real world.</td>
</tr>
<tr>
<td>Group</td>
<td>(Talking over top of each other agreeing) yes/mmm/yeah.</td>
</tr>
<tr>
<td>Researcher</td>
<td>So that’s another way of escaping?</td>
</tr>
<tr>
<td>Ruby</td>
<td>My mum hates it - when I’ve got stuff to do, my mum gets really mad at me for playing Minecraft for ages with my brother but you’re just in this other world and you can build whatever you want or do whatever you - you wouldn’t understand!</td>
</tr>
</tbody>
</table>
Interacting in digital spaces was not a strong trend in the young Melbourne researchers’ types of place interactions as seen in the frequency distribution chart in Figure 7.23. From Figure 7.23 visual inspection of the distribution indicates that actively engaging with place experiences and friends dominated the place interactions of both the Blue School and Green School adolescents (51% of all Green School interactions and 73% of all Blue School interactions), consistent with Abbott-Chapman and Robertson’s (2009) study of Tasmanian adolescents. Figure 7.23 also indicates that the Green School adolescents attended more to belonging, nature appreciation and the iconic value they invested in places, while the Blue School adolescents rated learning associated with places more than those of the Green School.

![Figure 7.23: Frequency distribution of valued places interactions.](image)

Differences between the two groups of adolescents’ preferred places by interaction, as summarised in Figure 7.23, may be accounted for by contextual factors - the Blue School researchers were mostly two years older than the Green School researchers and, consequently, had a greater focus on their education as they were reaching their final school years. Additionally the impact on student connectedness after the Green School’s almost closure the year before the research activities was evident from the adolescents’ place discourse.
Section summary

This chapter section focusing on the Melbourne adolescent researchers’ interactions with their valued places revealed that their interactions were closely aligned with place characteristics and adolescent processes. A sense of belonging or connectedness was evident in relation to their preferred places of home and school, as were relational interactions around place meaning and place identity. Lively place interactions of being active and having fun with friends dominated their place interactions, befitting their developmental imperatives. Balancing this were strategic retreats to natural and digital places for restoration.

Nature appeared amongst the adolescent researchers’ valuable places and place interactions explored in the previous chapter sections. In the next section I turn to consider how nature was positioned in the young people’s lives.

Positioning of nature in the Melbourne adolescents’ lives

Natural places were discernable as a dimension of the adolescent researchers’ valued place discourse. This chapter section presents the young people’s photographs and narratives in relation to how they positioned nature in their lives; through their articulated perceptions, their preferences as exhibited through their valued place photographs and interpretations, and where nature was perceived as a fundamental element in their lives. Initially I explore the adolescents’ ideas about nature.

Perceptions about nature

During Think Tank research team meetings, informed by constant comparative research processes (as outlined in Chapter Four, Methodological Approaches), provocative excerpts from the literature stimulated the place discourse, including Wals’ questions in his research with urban adolescents in the USA of “What is nature to you?” and “Can you find nature in your neighbourhood?” (1994, p. 8). These questions prompted some lively discussions as the young researchers articulated their conceptualisations of nature and its positioning in their lives; such that eventually versions of the questions were included in the survey instrument the research teams developed (refer to the next chapter for discussion of the Phase 3 survey research). The young co-researchers deemed these questions pertinent as summarised by Ruby’s comment “I think the nature part of your life is really important.”
In answering these questions themselves, the Melbourne young researchers demonstrated a gender difference in their conceptualising of nature according to the scale devised by Loughland et al. (2002) that rates young people’s level of sophistication in defining the (natural) environment. The boys all (n=3) defined nature with an ‘object’ focus while the girls (n=5 as Jewel had returned to Germany by this stage) all perceived nature from a ‘relational’ viewpoint according to Loughland et al.’s rating measure. Flint exemplified conceptualisation of nature as an object or thing by his response to the “What is nature” question as “Nature is something that is not man made. Was originally here.” In contrast, typifying the girls’ articulation of the relationship they have with nature, Pearl’s response was “It’s like for me, it’s really harmonious and I feel really calm – it’s yoga sort of. I guess for me it’s a lot about animals coz I’m really big with animals – I love animals and I have a dog at home. And I guess it can be broad, it can be nature, it can be so much – plants, animals, you know, farm land. It can be anything. Like our world is nature.”

Despite this disparity all the young people could easily nominate where they found nearby nature as part of their lives: in their backyards, as part of green sporting venues (ovals, golf courses), at the beach and nature reserves or parks. As discussed earlier in this chapter the beach was a recurrent category of place the young people all valued as represented by Jade’s comment “The beach is quite important to me as well. I often go for a run down there, or a walk with my mum, which is nice coz, that gives us time to speak and also it’s quite peaceful there.”

It will be recalled that Melbourne is built circling Port Phillip Bay. Both Blue School and Green School are located within the beachside suburban area of Greater Melbourne, close to one of the State’s Marine National Parks in the self-proclaimed ‘Garden State’ of Australia. This means access to nearby nature is readily available despite residing within the suburbs of a four million strong city. Jade’s photos of her local beach, her nearby neighbourhood nature, are presented in Figure 7.24.
As is evident from Jade’s beach photos in Figure 7.24, her local beach located in the Marine State Park is a nature-rich environment that she preferred for recreation. Other natural environment preferences of the young researchers will now be considered.

**Natural places preferences**

In addition to recognising nature as an element in their neighbourhood, the Melbourne adolescents included natural places amongst their preferred places. It will be recalled from the previous chapter section that the girls identified natural places they value to ‘chill’, such as Pearl’s backyard tree and Jade’s family farm. Referred to earlier, the beach, as an Australian icon was prominent amongst the young researchers’ favourite places. So much so that three of the girls contributed to the photo data very similar stereotypical sunset views of the beach as seen in Sapphire’s version in Figure 7.25. Sapphire explained her attraction to the beach as “It’s, like, I think it’s just the view. So it’s like, peaceful, so in some way you can relax your mind as well.”
Sapphire’s appreciation of the therapeutic benefits of a peaceful nature view, such as the one shown in her beach photo in Figure 7.25, echoes Owens (1988) and Owens and McKinnon’s (2009) findings with Californian adolescents that appreciated the restorative benefits of a view of nature.

Nature was strongly represented in the adolescents’ favourite family recreation places, such as Pearl’s beachside caravan and Jade’s family farm discussed earlier in this chapter. These special places that the adolescents valued for a number of reasons (family time, socialising, being active and enabling restoration) were often nature-based locations. Jewel’s story of her family tradition of gathering in the snow-covered Alps (Figure 7.26) typifies this. She explained: “I go skiing every year and we have this one week tradition every year - we meet up with five other families and rent this hut in the middle of nowhere. And there’s a river close by and then we walk (cross-country ski) up that (indicating on the photo, Figure 7.26) mountain at the back…….that’s not a normal ski area where tourists go skiing. That’s like nature where you can’t go [downhill] skiing.”

Jewel’s commentary about her annual family ski trip to the wilderness areas of Austria shown in Figure 7.26, gestures towards Payne’s (2010) contention that families and family activities
are highly influential environmental educators and mediators of young people’s connections with nature.

![Image](image.png)

**Figure 7.26: Jewel’s family’s annual nature engagement place – the Austrian Alps.**

As previously demonstrated in this chapter, the Green School adolescents enjoyed the unique natural environment of their school grounds with its extensive wetlands (with island) and abundant nearby nature integrated into the school design. They frequently expressed their desire to have unrestricted access to the more ‘wild’ areas of the school. Their choices of places for their ‘chill’ times with friends – the teenage deep and meaningful conversations and personal reflective times – tended to be the nature rich areas of the school such as ‘The Chair’ sculpture by the wetlands pictured in Figure 7.27. This was explained by the girls’ discussion of ‘The Chair’:

Ruby: We all the love the chair.
Researcher: You all love the chair? What is it about the chair?
Jade: It’s where we go to talk.
Pearl: It’s like if someone is having sort of a down day, I think I go out there with one of them and...me and Ella go out there quite a lot.
The Green School adolescents sense of place identity, that was connected to nature as exemplified in their place preferences and their valuing of nature depicted earlier in Figure 7.23 *Frequency distribution of valued places interactions*, suggests an ecological aspect to their self identity that I move to consider.

**Ecological identity**

The strong connectedness to nature the Green School adolescents exhibited resonates with the development of an ecological identity, that is nature as an integral element of self identification (Clayton, 2003; Thomashow, 1995). Their place-identity as part of their self-identity (Proshansky, 1978) linked to the naturalness of their school environments as represented by their conversation about their school:

Jade: I think it’s nice that we have a more natural environment. It’s not just like a concrete jungle here, there’s places where you can go sit on the grass.

Ruby: Concrete jungle?

Jade: It’s a term. It’s not just a little patch of oval you know. It’s not an oval in the middle of school and its grass. It’s nice that we’re surrounded by trees and grass and it’s actually really nice to be able to go sit on the grass with friends and not like everyone’s crowded in this one little tiny oval. It’s just spread out everywhere. It’s really nice coz it’s sort of more, not secluded but personal.
Indicated from perusal of their photographs and conversations, the Green School adolescents exhibited a greater preference for natural places than the Blue School students. This trend is supported by the place listings frequencies shown Table 7.2.

It is evident from the place listings frequencies in Table 7.2 that the Blue School adolescents’ most valued places were their bedrooms and indoor socialising places, while the Green School adolescents’ most valued place was the school grounds (outdoor) socialising places. These frequency distributions support the premise that the Green School students exhibited a heightened preference for natural places in comparison with the Blue School adolescents.

Table 7.2: FREQUENCY DISTRIBUTION OF THE ADOLESCENTS’ VALUED PLACES

<table>
<thead>
<tr>
<th>Place categories</th>
<th>Blue School</th>
<th>Green School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Outdoor recreation</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Sporting</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Indoor recreation</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Retail</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Iconic/symbolic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Virtual/gaming/network</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>With device</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Beach holiday</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Snow holiday</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Extended family homes</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nature holiday</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tourist holiday</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Weekender beach</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weekender farm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Friends place</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Home- family rooms</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Home - garden</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Home- pets</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Home- pool</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Home - bedroom</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Home- backyard</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Beach</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Park</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>School-canteen</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>School-farm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>School grounds learning</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>School INDOOR socialising</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>School OUTDOOR socialising</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>School INDOOR sporting</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>School OUTDOOR sporting</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>School symbolic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>School territory</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>School attractive</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>School bus</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTALS</td>
<td>41</td>
<td>100</td>
</tr>
</tbody>
</table>

NOTE: Listing omits excess multiples and obvious mistakes
A reductive thematic analysis of the young people’s valued places into spatial types, as shown in Figure 7.28, further supports this contention that the Green School adolescents had a greater connection to nature than the Blue School Students.

![Figure 7.28: The places the young researchers identified as valued by spatial type.]

It is obvious from Figure 7.28 that the Blue School researchers primarily preferred built places not natural places (58% of places) whereas the Green School Students mainly preferred places that were nature rich (32% nearby nature and 27% wild nature places). The spatial classifications of ‘nearby nature’ included backyards, courtyards etc. that were landscaped with plants, while the ‘wild’ nature category included any green, blue or white (Korpela, 2014) primarily natural setting. The Green School students had greater opportunities to incorporate nature into their lives as their school setting exposed them to a more nature-rich setting every school day. This familiarity with nature obviously impacted on their choices of valued places, elevating the nature preferences of Green School students.

The Green School adolescents’ connection with natural environments went beyond their school setting. Their families tended to preference weekender and holiday locations that were nature rich, as exemplified by Ruby’s annual holiday at Warburton on the river with her cousins and friends. Ruby’s photo of herself on the river is reproduced in Figure 7.29. She described this experience interacting with nature:
Ruby:  I go with my auntie, I don’t go with my mum, so it’s also a good time to spend time with my auntie and uncle and cousins.

Researcher:  So, again the family element as well as new friends and social.

Ruby:  And fun because like learning and stuff.

Researcher:  And camping? Nature?

Ruby:  Yeah, I get so much freedom with my auntie, like seriously she doesn’t care where I go.

Ruby:  That’s the river.

Researcher:  That’s the river, where? Warburton?

Ruby:  Yeah. And like the caravan park is here and there’s a river going around the whole caravan park and it’s just starts here and it flows right down and we’re down the bottom so all we have to do is walk to the top and then we just catch a ride, go down the rapids and everything all the way back to our caravan.

Ruby’s description of her valued place, the river holiday location, and interactions with this place, reaffirms earlier observations that the adolescents’ valued places are those that fulfil a multiplicity of needs. Ruby valued the Warburton River camp for connectedness and socialising with family and friends, as somewhere to be active and have stimulating experiences, and somewhere she was able to have greater independence and freedom. Ruby’s interactions with the river camp were mediated by her developmental processes, her family and the layers of place meaning from annual visits – all factors identified in my theoretical framework of adolescent, place relationship and social ecology system factors that mediate place engagement.
Ruby’s family’s choices of holiday and weekend locations and their selection of the Green School with its nature-rich environment for Ruby’s education, signify a family preference for nature that accords with Payne’s (2010) postulation of family-based environmental education. Influenced by her family choices, Ruby has developed her connection with nature evident in her preferencing of nature-rich valued places. Her experience at the river camp may well become a significant life experience of the type Palmer and Chawla have observed to promote pro-environmental attitudes and behaviours in adulthood (see for example Chawla, 2007 and Palmer et al., 1999).

Jewel also demonstrated an integration of nature into her life through her photo of herself at sunset at the local beach seen in Figure 7.30. Jewel explained how this photo was different from other similar beach sunset photos other young researchers had contributed to the data such as Sapphire’s photo seen earlier in Figure 7.25:

![Figure 7.30: Jewel at the beach.](image)

Jewel: That’s at the beach.
Researcher: And that’s you doing some gymnastics is it?
Jewel: Yeah. I thought it was kind of perfect.
Researcher: Lovely. It’s beautiful.
Jewel: Coz it’s the beach where I love to be and I love doing gymnastics and I also love being in nature so...

Jewel’s explanation for her beach photographs in Figure 7.30 indicates that she perceives herself as a gymnast and a nature lover; that is her self-identity incorporates an ecological identity dimension (Clayton, 2003; Thomashow, 1995).

Similarly Pearl, another of the Green School students, evidenced her ecological identity with the photograph she used to identify herself on Facebook shown in Figure 7.31.
Pearl also demonstrated the natural environment as part of her self-concept with the photograph that she used to identify herself on Facebook shown in Figure 7.31. Most of the adolescent researchers portrayed themselves as typical teenagers with the images they selected for their Facebook profile – with friends, clowning around and dressed for a special event (these were visible as a tag in the research group communications – see Appendix I). Pearl instead depicted herself as someone in nature gesturing towards an ecological identity.

*Figure 7.31: Pearl’s Facebook profile.*

Suggestions of an ecological dimension to the adolescent researchers’ identity was only evident amongst the Green School girls, consistent with the observation that the Green School students valued a predominance of natural places and the noticeable gender difference in choice of nature as restorative.

*Section summary*

This chapter section has explored how the adolescent researchers positioned nature in their lives. The girls tended to demonstrate a closer connection with nature with their valuing of natural places as restorative and their predominantly relational view of nature. All of the young researchers identified the presence of nature within their lives. The Green School adolescents placed greater value on nature-rich environments suggesting a familiarity with nature mediated by their families’ preferences influence their positioning of nature within their lives. Some of the Green School girls evidenced nature as connected to their self-identity.

The following chapter section as the final section of this chapter moves to investigate the role of environmental learning and learning in nature associated with the places the young researchers identified as important in their lives.
Environmental learning

This chapter section continues the narrative of the young Melbourne adolescents’ interactions with nature with a focus on their learning related to natural environments, including learning in their school grounds.

Learning in nature

There was a noticeable disconnection between the adolescent researchers’ perceptions of learning about the environment and learning in nature. The young people reported school assignments, the internet, teachers and general public discussion on environmental topics as ways they learnt about the environment. Learning was very rarely mentioned in conjunction with their interactions with nature, signalling a disconnection.

The Blue School young researchers displayed strongly held convictions that the school grounds were not useful for their learning as represented by the comments:

<table>
<thead>
<tr>
<th>Researcher:</th>
<th>What value or purpose do the school grounds have for you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flint:</td>
<td>Just a place to be with friends. A place to be outdoors. To get away from the classroom that kind of thing.</td>
</tr>
<tr>
<td>Researcher:</td>
<td>Anything to do with learning?</td>
</tr>
<tr>
<td>Flint:</td>
<td>Not a huge amount.</td>
</tr>
<tr>
<td>Coral:</td>
<td>School grounds is sport. At recess a lot of people play sport.</td>
</tr>
</tbody>
</table>

Flint and Coral evidently perceived the school grounds as only useful for sports or socialising.

Later conversation brought to notice Coral’s perception of the school grounds for distraction and play:

| Coral:       | If it’s a nice day we will pester the teachers to have class outside which happens sometimes but it’s never really a productive class if you go outside. |
| Researcher:  | Not productive? Why? |
| Coral:       | I don’t know. Maybe you get distracted and just lounge around if it’s a nice day. |
| Researcher:  | OK. So what would you say in terms of school grounds and work? Do those terms go together? |
| Coral:       | No, its usually like classrooms and work. School grounds and play. |
Coral and Flint obviously viewed the real work of learning as only happening in the classroom. I wondered if this was a reflection of their more formal and traditional schooling, and their position as focused senior school students:

Field note: 19 March 2013 - [Blue School] post Think Tank reflections

I am struggling to get the kids to contribute beyond just superficial observations compared to the [Green School] kids who seem to be thinking more deeply and questioning themselves and their interactions with their valued places – they actually go the other way and sometimes it is hard to keep the conversations focused when the girls get enthusiastic and start to talk all over the top of each other! I wish I could get a bit of that enthusiasm going with the [Blue School] meetings. Maybe it is because I have not developed as comfortable a relationship with the [Blue School] kids. It hasn’t helped that not all the kids have been at the sessions. The school makes it hard by not making the times easy for them!! The [Green School] kids have been great with all attending all meetings and even wanting extras. Is it the difference between the two schools with [Green School] encouraging more independent and creative thinking? Or is it that the [Blue School] kids are older and more focused on academic achievement at this stage? Even bringing snacks hasn’t really loosened them up compared to the [Green School] kids who dive on the food and treat it like party time! Not sure what else to try to really connect with these kids. They seem to want to keep their distance from me – am I too much like their teachers?

The Green School adolescents had demonstrated a connectedness to nature not evident in the Blue School young researchers, as discussed previously in this chapter. In addition their school values are founded on sustainability and appreciation of natural environments, so I anticipated differences in their ideas about environmental learning in comparison to the Blue School students. However environmental learning in the school grounds or other natural places was also not recognised or valued by the Green School researchers, as Jewel explained:

I think it’s most likely best if it’s for social things, coz lessons out there you can get distracted easily, but it’s also a fun thing to have lessons out there because it’s like something different from sitting in the classroom. But it’s definitely most likely the social things that you can do out there.

Jewel, like Flint and Coral from the Blue School appeared to equate learning as only classroom based, a situation that is not uncommon according to Titman (1994), Hart (2007) and Orr (2011). The other Green School students echoed Jewel’s sentiments as is evident from Jade’s comments:

Researcher: What do you value your school grounds for?

Jade: If it’s school grounds then friendship, but if it’s school in general, for me personally, education.

Researcher: In what way Jade?
Jade: I guess, I don’t know! I’m very focused on schoolwork, I get really into schoolwork. I don’t like doing the standard; I have to do something else ….more.

Researcher: So how do the school grounds connect to that?

Jade: When I’m at school I’m sort of more focused and driven to do work but when I’m at home, I have the TV there.

Researcher: You’re at school and focused. How does that connect to the school grounds?

Jade: I guess just being in the school grounds.

Researcher: OK, so it’s a signal to you this is school - so focus.

Jade: Exactly. Except at lunchtime.

Jade clearly compartmentalised the school grounds as a place for socialising and that learning happened elsewhere. Jewel and Jade’s comments indicate that even at the environmental education focused Green School, the young people did not recognise environmental learning as included amongst their everyday school grounds interactions.

The Green School adolescents were able to recount formal environmental learning experiences beyond the classroom when specifically prompted, as Pearl related:

I remember another time when we went to another wetlands but seeing the little animals, it was so amazing. Just thinking, a lake, there was animals.

Consistent with Wals’ (1994) observation of limited reference by adolescents to learning in nature, the adolescents in this study made very few spontaneous references to learning in connection to their valued natural (or other) places. When reminded, the Green School students were able to identify examples of formal learning outdoors but the dominant view of the adolescent researchers was that outdoors and nature were not connected to their education.

The young researchers evidenced a strong opinion that learning about the environment was not part of their outdoor and nature interactions. This leads me to consider what sort of learning was connected to their place interactions, shifting focus to social learning.

Social learning

The adolescents evidenced a restricted view of learning as that defined by schoolwork tasks. They did not appear to make the connection to other experiences, including social interactions, as learning.
It will be recalled from earlier in this chapter that the Green School adolescents’ opportunities to connect with nature was mediated by family. Coral from the Blue School explained the difference between school and family nature experiences:

**Researcher:** Family and friends outdoor stuff seems to be quite different [to that at school]. Can you kind of put your finger on it for me about how they're different?

**Coral:** Well school is a very controlled environment and there are boundaries with what you can do because of safety and with the teachers there. Which actually changes the environment. So if you’re out there with friends and family, you’re not really having to say, abide by those rules, by teachers and stuff. But with your family, you can relax, you can kind of do what you want and not have to worry about what everyone else is doing, what the teachers saying, that kind of thing.

**Researcher:** Saying?

**Coral:** Yeah, instructions. There are certain rules that you have to abide by when you’re out.

**Researcher:** OK, so it’s more about freedom and choice?

**Coral:** Yeah.

It was evident from Coral’s explanation and the Green School researchers’ similar opinions that the young people valued flexible, social interactions with nature; that school restrictions inhibited their nature interactions and potential experiential environmental learning. This reiterates my earlier finding that adolescents’ outdoor nature experiences were primarily mediated by the social context of family. Social activities, not formal schooling experiences, were also evident as influential mediators of the adolescents’ interactions in nature. The adolescents did not connect formal environmental learning with learning in nature; instead they valued social learning in nature, resonating with Wals’ (2007) call for a social learning focus in environmental and sustainability education.

**Section summary**

The adolescents’ perceptions of learning predominantly centred around classroom activities - they did not recognise social learning or other activities in nature as learning experiences. Consequently they did not regard their school grounds as important for learning; instead they view the school grounds as primarily for social activities. Family-mediated interactions with nature, in comparison to school managed activities, were viewed by the adolescent researchers as enabling greater nature experiences. These findings suggest social learning as a useful facilitator of learning in nature.
Chapter conclusion

In this data chapter elucidating the findings of the Melbourne-based adolescent researchers, I have initially presented the places that the young people valued; namely their homeplace and extensions of homeplace into other regularly used family locales; socialising or gathering places; places for being active; natural places; places they valued for their restorative qualities; and places that were the keeping places of memory and iconic meaning. Following the detailing of the specific places the young researchers identified as important to them, the chapter then went on to exemplify the interactions the adolescents engaged with in their preferred places related to their sense of connectedness and belonging to places, physical experiences of place, the sense of place interactions of meaning making and identity construction, and restorative place interactions. Following was an exposé of the positioning of nature in the young researchers’ lives, exploring their perceptions, preferences and evidence of developing ecological identities within the Green School cohort and a gender difference in nature connectedness. Finally this chapter attests to the adolescents’ perceptions of learning in nature as distantly connected to their education but identifies that social experiences with family and friends in nature promotes nature experiences, suggesting a consideration of social learning as a mediator of environmental learning.

In summary the findings from the research with the Melbourne adolescent co-researchers are:

- Family home base(s), including their bedrooms, and places to gather with friends at school were the adolescents’ most valued places;
- Valued places were often interacted with in multiple ways, with underlying place relationships eliciting place conceptions beyond spatial dimensions into keeping places of meaning and places of identity;
- Socialising dominated place interactions. Being active and having fun with friends were important influences for place preferencing, with the place often just as background. The adolescents’ were primarily focused on themselves as central to the valuing of place;
- Restorative places were valued – home, bedroom, nature and for a few digital spaces.
- Nature was more important to the Green School students with their nature familiarity and family mediation of nature experiences;
- The girls demonstrated a closer connection to nature than the boys in the group; and
- Environmental learning associated with the adolescents’ valued places was not evident, instead social learning dominated.
In this chapter the Melbourne adolescent researchers portrayed their personal journeys of place navigation in the process of shaping their adult selves. Their valued places were frequently those the young people valued in many ways, suggesting multiple factors that mediate place engagement. Such factors that mediated the adolescents’ interactions with places were consistent with the influential factors identified in my theoretical model of place engagement; namely adolescent developmental processes, place relationships, and socioecological systems.

Naturally this rich tapestry of adolescent narratives of place presented here has many loose threads, based as it is on only just nine stories of place in Melbourne. Consequently, to broaden and build our understandings of places that matter to adolescents, the research team (the nine young Melbourne co-researchers and I) designed and administered an anonymous online survey that we invited the rest of the students at the adolescents’ schools to participate in. The findings from this survey follow in Chapter Eight – Survey of places that matter to adolescents.
CHAPTER EIGHT

SURVEY OF PLACES THAT MATTER TO ADOLESCENTS

Introduction

The previous two chapters have detailed the findings from the research activities with my adolescent co-researchers in remote India (Chapter Six) and Melbourne (Chapter Seven) where the adolescents contributed photographs of their valued places and interrogated their conceptualisations and perceptions about the places that matter to them. These findings were utilised by the Melbourne-based research team (researcher and my co-researchers) to inform the development of an online survey tool in order to further explore the places that matter to teenagers. The adolescent population of the two schools where my co-researchers attended were then invited to complete this anonymous online survey. The findings from this survey are presented in this chapter.

As in the previous two data chapters, I present the findings under the areas of interest in this study articulated in the research questions: namely adolescents’ valued places, patterns of interaction with these places, positioning of natural places in their lives, and environmental learning. As before, the data presentation is visualised via a flow chart map of the data chapters, indicating the positioning of this chapter in relation to the other data chapters and the key data themes as shown in Figure 8.1.

The Places that Matter Research Survey enabled the adolescent participants to detail their valued everyday and favourite places. In addition they identified their perceptions of places within a restricted focus on ‘green’ or natural environments and at school. Questions about their place interactions and preferences completed the survey exploration of adolescent places.

Before detailing the adolescents’ place data, I first turn to considering the introductory survey information about the participants’ everyday activities that give a glimpse into an affluent minority teenager’s typical day.
An adolescent’s typical day

The survey participants indicated the times they spent in various daily activities enabling a glimpse into the adolescents’ typical day. Figure 8.2 displays the times the adolescents indicated they spent outside, with friends, engaging with various communications media and in travelling between places. It is evident from the participants responses displayed in Figure 8.2 that most of the young people spent some time engaging with social media and other forms of electronic communication every day but they also spent time outdoors and in face-to-face social interactions. The adolescents strongly preferred spending time with their friends with over half the respondents indicating that they spent more than five hours a day with
their friends, consistent with other reports of adolescents spending almost one third of a typical day talking with friends (Spear, 2000).

Figure 8.2: Times survey respondents reported spent on activities in a typical day.
The majority of respondents indicated they spent 1-3 hours outside on a typical day - 31% indicated they spent 1-2 hours outside and a further 25% indicated they spent 2-3 hours outdoors, i.e. 56% spent 1-3 hours outdoors. Research has indicated a positive relationship between time spent outdoors and physical activity (Munoz, 2009). Therefore the time the respondents spend outdoors aligns with the Australian Bureau of Statistics (ABS) 2011-2012 findings that, on average, young people spent 1½ hours engaged in physical activity, exceeding the recommended 60 minutes a day spent in moderate exercise (2013).

For the majority of the survey respondents the times they reported spent on screen-based activities (on social media, watching TV, on phone applications and working on a computer), as with other young Australians in the recent national health survey, exceeded the recommended maximum of two hours of screen time a day (ABS, 2013). This is consistent with world-wide concerns that children and young people are increasingly spending more time indoors and engaged in technology-mediated activities to the detriment of time spend outdoors (Barratt Hacking et al., 2007a; Clements, 2004; Elkind, 2001; Louv, 2005, 2007).

Most of the adolescents spent 30 minutes to two hours a day in travel (86% of those surveyed), while a small number of them spent many more hours in their day travelling to and fro. In designating their neighbourhoods as places they valued in the survey, some of the young people identified locations faraway from their school that would necessitate extensive time in a daily commute to school. This choice some families have made to send their children to schools far removed from home is consistent with emerging concerns about the adult-managed ‘busy-ness’ in young people’s lives as they hurry from one scheduled activity to the next (Clements, 2004; Elkind, 2001; Munoz, 2009; NSW Commission for Children and Young People, 2012).

Obviously the times spent in the different activities in a typical day, as reported by the survey respondents shown in Figure 8.2, are not mutually exclusive with the many hours spent with friends incorporated into other activities.

The times the males and females spent in the different daily activities were similar except in the area of screen-based communications. This can be seen in Figure 8.3 where the boys predominantly indicated they spent a short time in these activities but the girls’ responses indicated longer times spent on phones and social media. A Pearson product-moment correlation coefficient was computed to assess the relationship between gender and time spent on social media and also time spent on the phone (texting etc.). There was a small correlation observed between gender and time spent on social media, $r = .256$, $n = 136$, $p = 0.003$. Similarly a small correlation was evident between gender and time spent on phone
(‘texting, using apps.’), \( r = .203, n = 137, p = .017\). The crosstabulation shown in Figure 8.3 demonstrates the girls spent more extended time on phones and social media. Overall there was a modest indication that the female participants preferred time communicating via electronic means to a greater extent than the males in the survey.

![Figure 8.3: Gender differences in reported times spent in electronic communications.](image)

The times spent in activities the survey respondents nominated as typical for their daily life gives a glimpse into the types of places and activities they engage with. The actual places identified by the young people as valuable for engaging in these daily and preferred activities are now presented. Connections made between places and activities are considered in the subsequent chapter sections considering interaction patterns, positioning of nature and socioecological learning following this next section that outlines the places the young people in the survey indicated as important to them. Initially descriptive statistics introduce the young people’s place preferences and then deeper statistical analyses are presented as the story of the places that matter to the adolescent survey respondents unfolds.
Valued places

Survey participants listed their valued everyday places, all time favourite places, the natural or ‘green’ places they valued, their favourite natural environment and the places they most valued at school. For each of the listed places (some with first, second and third preferences noted) the participants explained what it was about their identified places that made them valuable. Place preferences are an expression of underlying needs as preferences and perceptions are closely related (Kaplan and Kaplan, 1995), so this exploration of the adolescents’ place preferencing illuminates their perceptions and needs in relation to places and nature.

As shown in Figure 8.4 and aligning with my young co-researchers in both India and Melbourne, the survey respondents identified home/family (Homeplaces33), school and community places as their most valued. It will be recalled that as well as homeplaces the Melbourne researchers indicated their school as a highly valued place, while the India researchers also rated community places as significant. As is evident from Figure 8.4 the survey respondents did not similarly recognise school or community places so highly, with a clear preference for homeplaces above all others.

The types of home/family, community and school places identified by the survey participants as valuable are shown in Table 8.1. The preference statistics for these places varied dependent upon the participants’ focus (everyday, favourite, natural or school) and these preferences will be detailed further in this chapter section. Table 8.1 is presented as an introduction to the range of locations the adolescents nominated as valuable to them.

The extended range of the family unit (Homeplaces) incorporated other regular home bases the family uses such as a relative’s house (for example the home of grandparents who have regularly cared for the young people growing up) and holiday or weekender places. This conceptualisation of ‘home’ equates with that of the young people in Abbott-Chapman and Robertson’s (2009) study in Tasmania, Australia, where the adolescents perceived their family ‘home range’ as a similarly elastic space, incorporating homes beyond their normal residence

33 As discussed in Chapter Six, for the purposes of this study I use the term Homeplace to include the family home and yard/growing area. Extended Homeplace (Homeplace +) is then extensions to the family unit of related family homes, holiday homes and special holiday locations that are regularly visited as part of family life. Together these are their homeplaces.
in their home range. The relatively mild winters in Australia mean that family holiday houses\(^{34}\) (summer houses or cottages) are used throughout the year as more of a family base than perhaps in other locations, to the extent that these places are part of the family home base and used at weekends as well as during holiday periods.

![Bar chart showing percentage of everyday and favourite locations.](image)

**Figure 8.4: Survey participants’ valued everyday and favourite locations.**

The community places the survey respondents identified as important to them tended to be recreationally related: for sports and activities, walking the dog along the neighbourhood creek or meeting up with friends at the local shopping mall. While the range of places the young people identified within their schools that they valued included the unexpected locations of the canteen and bus, as well as the stereotypical places as a teacher I would expect teenagers to value. Specific details of the places the survey respondents identified (as noted previously) varied with the participants’ focus – be it through a lens of favourite, everyday valuable,

\(^{34}\) This includes cabins and semi-permanent campsites.
natural or school places – and these details will be outlined shortly in this chapter section in relation to the place themes of *homeplaces*, bedrooms, community places and valued places at school.

**Table 8.1: LISTING OF TYPES OF PLACES VALUED THROUGHOUT THE RESPONSES.**

<table>
<thead>
<tr>
<th>HOMEPLACES</th>
<th>SCHOOL</th>
<th>COMMUNITY</th>
<th>NEARBY NATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Bedroom</td>
<td>· Canteen</td>
<td>· Recreation eg pool, skate park</td>
<td>· Anywhere outside</td>
</tr>
<tr>
<td>· Family gathering areas e.g. lounge, study</td>
<td>· Farm area</td>
<td>· Recreation indoors eg dance studio</td>
<td>· Beach</td>
</tr>
<tr>
<td>· Food related - kitchen, dinning area, fridge</td>
<td>· Library</td>
<td>· Retail / shopping</td>
<td>· Green sporting</td>
</tr>
<tr>
<td>· Dedicated games or media room</td>
<td>· Outdoor learning - sports</td>
<td>· Sporting ground (outdoor)</td>
<td>· Iconic or symbolic</td>
</tr>
<tr>
<td>· Family pet areas</td>
<td>· Outdoor learning in school grounds</td>
<td>· Symbolic - key cultural and sporting</td>
<td>· Park</td>
</tr>
<tr>
<td>· Garden</td>
<td>· Socialising- indoors</td>
<td>· Neighbourhood area</td>
<td></td>
</tr>
<tr>
<td>· Swimming pool</td>
<td>· Socialising - school grounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Backyard activity areas</td>
<td>· Sporting - indoors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Grandparents or other extended family’s home</td>
<td>· Sporting - outdoors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Family beach house/weekender</td>
<td>· Symbolic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Family hobby farm/weekender</td>
<td>· Territory - peer group/personal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Regular family beach holiday location</td>
<td>· Welcoming/ appealing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Regular family bush holiday location</td>
<td>· Bus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>· Regular family snow holiday location</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*NOTE: Generic valued place listing – variation occurred with everyday, favourite, natural and school focus.*

In the survey there were two unconstrained place identification questions related to everyday places and ‘all time favourite’ places. For these place types participants were requested to list 2-3 places within these categories that they valued. (As early questions in the survey, many participants completed listing of three places of each type and long explanations. Later listings of favourite natural environments and school locations showed evidence of some survey fatigue, or possibly less interest in these places, with reduced contributions to these open response questions).
Initial categories of the everyday and favourite places respondents identified were consolidated under thematic headings of home/family places, community places (including sporting venues), friends’ places, natural places and digital spaces. This initial analysis indicated some similarities in the types of places most valued by adolescents between the everyday and favourite categories, as shown in Figure 8.4. In both the everyday and favourite places that the adolescents valued, home and community predominated as the most valued places, consistent with similar preferring of home and community places by the young co-researchers in this study in both India and Melbourne as noted from Chapters Six and Seven. This also accords with Castonguay and Jutras’ (2009) study of less privileged Montreal children’s (ages 7-12) preferred outdoor places where there were few differences between liked and favourite places in their neighbourhoods. Similarly these findings correlate to Korpela et al.’s (2002) study of young people’s (ages 8-13) favourite places in Finland where sporting and home were the most popular places; and Sommer’s (1990) research with Estonian adolescents (ages 11-17) whose most favourite place was their homes (usual residence and summer homes). Thus demonstrating that the surveyed adolescents’ valued places were similar to adolescents in other contexts, both in terms of geography and time.

In addition to the universally valued *homeplaces* and community categories of places, school was indicated by the survey respondents to be a popular everyday place but not a favourite place. Favourite and everyday valued places play a role in place-identity and therefore self-identity construction (Korpela, 2002; Munoz, 2009; Proshansky, 1978) and in the positioning of the natural environment as part of identity (Clayton & Opotow, 2003; Thomashow, 1995). Thus both favourite and everyday valued places, as well as valued natural places and school ground locations are of interest in this study, both in terms of adolescent development and ecological identity formation, incorporating exploration of not just natural environments the young survey respondents preferred but taking a wider view of how natural environments are positioned within all the adolescents’ place preferencing and interactions. With this in mind I now turn to considering the survey findings about the young people’s most preferred everyday and favourite places: their *homeplaces*, the special zone within the home of their bedroom, and valued community places.

**Homeplaces**

The family residences (home and extensions of home into relatives’ houses and family holiday homes) were seen by the majority of the young people surveyed as their most valued place (59% of all the everyday places (n= 368) and 52% of all favourite places (n=363) nominated),
consistent with other studies of young people's valued places (Abbott-Chapman & Robertson, 2009; Korpela et al., 2001; Sommer, 1990).

Some of the young people in the survey also identified specific zones of their homes that they valued the most, with their bedroom rated highly amongst their valued everyday places as evidenced in the frequency statistics in Table 8.2.

### Table 8.2: FREQUENCY DISTRIBUTION HOMEPLACES WITHIN RESPONDENTS’ EVERYDAY AND FAVOURITE PLACES

<table>
<thead>
<tr>
<th>HOMEPLACES</th>
<th>Everyday (ED) count</th>
<th>% of ALL ED places(^{35})</th>
<th>Favourite count</th>
<th>% of ALL Fav places</th>
</tr>
</thead>
<tbody>
<tr>
<td>home (holistic)</td>
<td>88</td>
<td>23.9</td>
<td>46</td>
<td>12.7</td>
</tr>
<tr>
<td>family areas</td>
<td>23</td>
<td>6.3</td>
<td>13</td>
<td>3.6</td>
</tr>
<tr>
<td>food related</td>
<td>9</td>
<td>2.4</td>
<td>8</td>
<td>2.2</td>
</tr>
<tr>
<td>games/media</td>
<td>3</td>
<td>0.8</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>garden</td>
<td>1</td>
<td>0.3</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>pets</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>pool</td>
<td>2</td>
<td>0.5</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>bedroom</td>
<td>63</td>
<td>17.1</td>
<td>31</td>
<td>8.5</td>
</tr>
<tr>
<td>backyard</td>
<td>9</td>
<td>2.4</td>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td>extended family's</td>
<td>11</td>
<td>3.0</td>
<td>36</td>
<td>9.9</td>
</tr>
<tr>
<td>weekender beach</td>
<td>3</td>
<td>0.8</td>
<td>12</td>
<td>3.3</td>
</tr>
<tr>
<td>weekender farm</td>
<td>3</td>
<td>0.8</td>
<td>7</td>
<td>1.9</td>
</tr>
<tr>
<td>regular beach hols</td>
<td>0</td>
<td>0.0</td>
<td>10</td>
<td>2.8</td>
</tr>
<tr>
<td>regular bush hols</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>1.4</td>
</tr>
<tr>
<td>regular snow hols</td>
<td>1</td>
<td>0.3</td>
<td>10</td>
<td>2.8</td>
</tr>
<tr>
<td>special nature hol*</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
<td>1.7</td>
</tr>
<tr>
<td>special tourist hol*</td>
<td>0</td>
<td>0.0</td>
<td>56</td>
<td>15.4</td>
</tr>
</tbody>
</table>

* Special family holidays have been included for comparisons. These were not considered conceptually as homeplaces, although they were often perceived as favourite places of special family times.

The family home was seen as significant by providing for the physical and emotional needs of the young people, as represented by these exemplar comments contributed to the survey:

\(^{35}\) A full frequency distribution listing of all the favourite, everyday and other valued places thematic category responses can be found in Appendix N.
“Everything that matters to me is there.”

“My house is just one of my favourite places. I live there and all my stuff is there not to mention my family also live there.”

“It’s my home, where I live, where my family lives and all my friends are close by.”

“My home, my bed - Because I like food and sleep.”

“That my family is there along with my pets and other belongings.”

When specific areas within the home were mentioned as valued places (apart from the special case of their rooms that will be discussed separately below), the survey respondents preferred the family gathering areas and food related zones of their houses. The focus on food, also evident with the young people in India as reported in Chapter Six, is consistent with the growth needs of this age (Spear, 2000). As one girl reasoned for her selection of the kitchen as one of her valued everyday places, “Food is everything!” The family areas were also often explained as where the young people were able to access screen-based activities in the home, as exemplified by one young man’s comment about the reason he valued his family ‘living room’ was because “All the technology is there.” Another boy described one of his favourite places as “the media room [which] has the TV and all the gaming consoles that connect to the TV.” This trend was consistent with the parental practice of banning screen devices from the young people’s bedrooms that was noted by the young Melbourne co-researchers in Chapter Seven and in keeping with recommendations internationally (Straker et al., 2014).

The home range of the young people often stretched to include extended family homes (10% of all favourite places and 3% of valued everyday places), mainly those belonging to grandparents, and the family’s regular second or holiday ‘home’ (22% of all favourite places and 5% of valued everyday places). The inclusion of grandparents’ homes as part of their homeplaces (and therefore consistent with adolescent valuing of their family residences as important to them as described previously) is explained by one girl in describing her primary favourite place as “My grandparents house - I spent a lot of time there growing up and my papa and grandma live there and I love visiting them.” This gestures towards Elkin’s (2001) characterisations of modern children as ‘hurried’ along to various caregivers to accommodate parental schedules and commitments.

36 The adolescents’ survey responses often evidenced poor spelling and grammar that have only been occasionally corrected for sense, ensuring the comments still reflect the young people’s own ‘voice’.
Extended *homeplaces* of favourite family weekend and holiday places included “My farm - Because most of my favourite memories and best days of my life have been set there and I am sure there are many more to come.” And about another favourite family farm “I love the freedom and being with my family and going on the back of the ute (pickup truck).” Weekender houses particularly beachside locations were valued because “I love the beach and having a holiday with my family” and “I get to be with all my family but also bring my friends down and enjoy surfing”, as well as “Because it’s where I do mountain bike riding and it’s good to get away from the city”, and “Falls Creek (snowfields village) - Because it is like a second home.” Extended *homeplace* preferencing by the survey respondents was orientated to family time, relaxation and leisure pursuits.

Many of the young people also identified favourite places as places where family lived overseas (for example one girl listed one of her favourite places as “London - My Dad’s family all originated there and he lived there almost his whole life and it’s very special there and I will probably move there when I am older”). Other favourite places, often overseas, were where the young people shared a memorable holiday with their family (for example “I have a lot of good memories from Bali with my family”). Although included in the initial thematic analysis as home/family places these special holiday places were not described in the same way as the young people discussed their *homeplaces* (for example by using personally-connected descriptions such as ‘I love…’, ‘my room/family’ and ‘I live…’) and were subsequently not included within the *homeplaces* overarching concept category in the second stage thematic analysis (as outlined in Chapter Four). These special holiday places represented a substantial proportion of the survey respondents’ favourite places (17% of all listed favourite places), many of which were nearby nature or wild nature environments (35%) that will be revisited in later discussions on the young people’s positioning of nature in their lives.

Many of the adolescents surveyed also identified their bedrooms as places that were important to them (8.5% of all favourite places listed and 17% of the young people’s valued everyday places). I will now examine in more detail the special zone within the family home that is the teenager’s bedroom.

*My bedroom: my space*

The teenage bedroom plays a special role in young people’s lives in affluent minority societies as a place where they have privacy, a place that they have ownership over and where they have a degree of autonomy in how they interact with the world (Abbott-Chapmen & Robertson, 2009; Bloustien, 2000; Hodkinson & Lincoln, 2008; Owens & McKinnon, 2009;
This trend was strongly demonstrated with a clear message from the Melbourne survey participants that their bedrooms were their private space where they could be alone to interact as they chose; findings that were also in parallel with the views of the young Melbourne co-researcher as presented in Chapter Seven. This valuing of their personal space within the family home, their bedroom or ‘myspace’, is exemplified by the following participants’ descriptions of how their bedrooms were valuable to them:

“It’s my own space where I can do whatever I like.”

“my private area to talk to friends and play computer games and read.”

“i can do what ever i wish and get away with it (bat-cave)”

“I might go there all the time but it’s really my favourite place - everything I love belongs there.”

Many responded that their bedrooms were a place of restoration, consistent with Owens and McKinnon’s (2009) contention that young people need places, such as their bedrooms, of psychological comfort as befitting their developmental tasks of cogitating on their niche in the world and developing their self-identity and self-esteem. This also accords with my theoretical model for place engagement outlined in Chapter Four that identifies adolescent developmental processes as factors that mediate place connections. Adolescent imperatives for ‘strategic retreats’ to places that enable restoration and reflection are recognised (Anthony et al., 2014; Berzonsky & Adams, 2003). Spear (2000) explains this is due to brain restructuring during adolescence that means adolescents are more vulnerable to stressors.

The use of bedrooms as a place of adolescent retreat and restoration is exemplified by the following responses about why respondents valued their bedrooms:

“In my room it is nice and peaceful and i am able to relax and be alone.”

Having privacy and an 'escape' to relax, read, spend time on my computer etc.

“relax, sleep, snuggle.”

“This is where I can sit and think about things.”

Many respondents commented about making use of screen devices as part of bedroom activities which clearly demonstrated modern affluent teenagers’ increasing use of their bedrooms as gateways into virtual spaces, consistent with Hodkinson and Lincoln’s (2008)
work with young people in the UK and Abbott-Chapman and Robertson’s (2009) research with Tasmanian teenagers. The computer, gaming consoles or phone were often mentioned by the survey respondents as an intrinsic feature of their bedrooms, as evidenced in one of the previous comments. The following comments represent the more screen-focused of the responses from the participants:

“my room has my mac and all my hand held gaming consoles.”

“I love sleeping and just being in bed with my phone”

“Because I can be alone (to read, be on my computer (1/2 the time), etc) , it has my bed and it is where my computer is (1/2 of the time).” [In other comments this boy explained that he split his time between his parents’ separate homes.]

As one young man summed up in his final comment on the survey, “The bedroom is probably the most loved room by the teenager, it is a safe haven and a place to relax, chat with friends on social media, it almost feels like it is [taken] for granted.”

After the home and extensions of home that were the most valued places by the Melbourne survey participants, community places were the next most valued of the adolescents’ favourite and everyday places. The community places valued by the young people will now be detailed.

**Community places**

After their *homeplaces* the young people’s next major preference category was community places (13% of all everyday valued places (n= 368) and 20% of their favourite places (n=363).

As can be seen from Table 8.3, sporting grounds were the most popular of all community places the survey respondents identified as important to them, drawn from their listings of their favourite places and valued everyday, local ‘green’ and natural environments. This corresponds with young people in Finland who identified sporting places as one of their most valued places (Korpela et al., 2001).
Table 8.3: FREQUENCY DISTRIBUTION OF COMMUNITY PLACES VALUED BY THE PARTICIPANTS

<table>
<thead>
<tr>
<th>Place</th>
<th>E/day (3 prefs.) count</th>
<th>% of all ED</th>
<th>FAVs (3 prefs.) count</th>
<th>% of all FAVs</th>
<th>Valued natural (3 prefs.) count</th>
<th>% of all natural places</th>
<th>FAV natural (1 pref.) count</th>
<th>% of all FAV natural</th>
</tr>
</thead>
<tbody>
<tr>
<td>recreation OUT e.g. skate</td>
<td>3</td>
<td>0.8</td>
<td>17</td>
<td>4.7</td>
<td>3</td>
<td>0.9</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>recreation IN e.g. gym</td>
<td>1</td>
<td>0.3</td>
<td>9</td>
<td>2.5</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>retail e.g. mall</td>
<td>8</td>
<td>2.2</td>
<td>9</td>
<td>2.5</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>sporting ground</td>
<td>32</td>
<td>8.7</td>
<td>20</td>
<td>5.5</td>
<td>15</td>
<td>4.5</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>iconic/symbolic</td>
<td>0</td>
<td>0.0</td>
<td>8</td>
<td>2.2</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>neighbourhood/suburb</td>
<td>5</td>
<td>1.4</td>
<td>9</td>
<td>2.5</td>
<td>6</td>
<td>1.8</td>
<td>2</td>
<td>1.5</td>
</tr>
</tbody>
</table>

As one of the world’s most livable cities (CNN, 2013), Melbourne with its mild climate has a sports-focused culture. Australian Rules football (an eclectic mix of Gaelic football, rugby and indigenous codes), cricket and netball are part of a young person’s experience growing up, with most neighbourhoods supplying at least one ‘oval’ or green sporting setting that is a common community activity and gathering place. In describing their attachment to their local sporting grounds the survey participants reflected this inclusion of sporting and associated activities through comments such as:

“Because I love playing sport and Football is one of my very favourites.”

“Where my favourite sport is held and my closest friends and I bond.”

“I can play sport and get fit and catch up with friends.”

“I love soccer and I can play soccer there.”

Being with friends was frequently noted by the young people as part of the sporting experience, as evidenced in the sample comments above. Friends and socialising play an important role in an adolescent’s life (Brown et al., 2002; Gerrig et al., 2011; Scott, 2009). Friends represent a significant dimension of the adolescents’ social ecological system (Bronfenbrenner, 1979), thus connecting to the underpinning theoretical framing for this research of factors that mediate place engagement. It is therefore not surprising that where the young people gather most weekdays, their school, was also a key valued place that will be explored in the following.
Valued places around school

Both *homeplaces* and community places predominated in the survey respondents’ listings of their valued everyday and favourite places. Their school was perceived as a valued everyday place but not a strong favourite in contrast to the my adolescent co-researchers, particularly those from the Green School, who highly valued their school.

School plays a large role in the lives of Melbourne and other affluent settings adolescents, particularly in these days of hurried and protected childhoods (Elkind, 2001; Malone, 2007a) when school is one of the declining outdoor spaces readily available to young people. School, particularly the secondary level, with the increasing focus on standardised testing in affluent minority education systems (Smith, 2002), often determines the next phase of a young person’s life – be it university (college) direction, apprenticeship or workforce opportunities, and as such schooling becomes a dominating influence in adolescents’ lives. It is not surprising then that the survey participants identified school as one of their more valued everyday places. Their main focus however was not valuing places related to learning, instead, their school-based preferential places were the school grounds sporting and socialising areas as evidenced by the survey responses of the most valued places at school described in Table 8.4.

Table 8.4: DESCRIPTIVE STATISTICS FOR MOST VALUED PLACES AT SCHOOL

<table>
<thead>
<tr>
<th>Valued school PLACES</th>
<th>count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>outdoor sporting</td>
<td>28</td>
<td>25.2</td>
</tr>
<tr>
<td>anywhere outside with friends</td>
<td>19</td>
<td>17.1</td>
</tr>
<tr>
<td>iconic/symbolic</td>
<td>11</td>
<td>9.9</td>
</tr>
<tr>
<td>indoor socialising/common room</td>
<td>10</td>
<td>9.0</td>
</tr>
<tr>
<td>my classroom</td>
<td>10</td>
<td>9.0</td>
</tr>
<tr>
<td>outdoor socialising</td>
<td>10</td>
<td>9.0</td>
</tr>
<tr>
<td>canteen</td>
<td>9</td>
<td>8.1</td>
</tr>
<tr>
<td>library</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td>drama/music room</td>
<td>3</td>
<td>2.7</td>
</tr>
<tr>
<td>access to technology</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>indoor sporting</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>bus</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>farmlet - animals</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>111</td>
<td>100</td>
</tr>
</tbody>
</table>

As can be seen from Table 8.4, and analogous to the respondents’ preferred community areas, school was valued for places to be active and to gather with friends, consistent with young people’s place interaction preferences in Finland (Korpela, 2002), Tasmania (Abbott-Chapman & Robertson, 2009) and California (Owens & McKinnon, 2009). The young people did acknowledge that their school was a valued place for learning but their chief everyday reason
for school being important to them is summed up by one young man’s explanation that “School is fun because I see all my friends.”

Natural places, friends’ places and digital spaces were also identified as important everyday and favourite places by the young people in the survey but these places were not perceived by the majority to be as valuable as their homeplaces, community places or school. Of these minor preference place types, nature, particularly the beach, was often identified as a restorative place, reinforcing the observation noted in Chapter Seven that the beach is an important place to Australians (Nakagawa & Payne, 2011). Additionally, the valued extended family bases frequently included natural elements. The role of nature in the young people’s lives was the subject of a number of the survey questions and will be explored in detail later in this chapter.

Having outlined the places the adolescent survey respondents perceived as important to them, I will now turn to a deeper examination (second stage analysis as outlined in Chapter Four) of their place preferences through identifying their conceptualisations of place and their rankings of the typical teen places identified by the research group (researcher and adolescent co-researchers).

**Valued places conceptualisations and preferencing**

As noted in the previous chapter outlining my Melbourne co-researchers’ data, the way the young people involved in Phase 1 and 2 research activities explored their conceptual and emotional perceptions of the significant places in their lives (as did the survey participants) gave rise to overarching conceptualised place themes, consistent with Kaplan and Kaplan’s (1995) contention that place preferences are linked to core concerns. As with the young researchers’ data, the places identified by the young people in the survey were, when possible from their explanations, aggregated into second stage recontextualised thematic categories beyond homeplace and the bedroom myspace places that emerged intuitively. The second stage thematic categories of place conceptions significant to the young people were: Homeplace, Homeplace extended, (Homeplaces) Myspace, Gathering place (places to gather with friends and ‘hang out’) and Keeping place (places that hold special meaning or memories). These key adolescent place concepts are consistent with and follow indications from previous adolescent place studies (Abbott-Chapman & Robertson, 2009; Owens, 1988, 1994; Owens & McKinnon, 2009; Sommer, 1990).
The thematic grouping of the survey participants’ favourite and valued everyday places into key place conceptualisations from (where possible) the young people’s place descriptions and explanations of why these places were important to them is shown in Figure 8.5. This representation of the participants place data in the conceptualised place themes, derived from the adolescents’ cognitive and emotion perceptions of their valued places, confirm the findings outlined previously in this chapter of the actual places the young people listed; namely home/family places were of primary importance to the adolescents, including the identified ‘territory’ of their bedroom. In addition places to gather and have fun with friends were important. Again these findings are consistent with previous research into adolescents’ valued places, indicating there has been little change in young people’s important places over generations despite the changes of increasing communications connectivity interwoven into affluent minority teenagers’ daily lives. Although the trend for using the bedroom as a gateway into virtual communications and sharing spaces evident in these findings is something worth monitoring in future research. Places that hold memories were of lesser importance, other than the memorable holiday locations. The separation of Homeplace extended from core Homeplace shown in Figure 8.5 indicates the positioning of these extensions to the core family unit home base as key favourites places for the adolescents.

<table>
<thead>
<tr>
<th>Everyday places</th>
<th>Favourite places</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeplace extended, 17</td>
<td>Homeplace, 75</td>
</tr>
<tr>
<td>Gathering place, 71</td>
<td>Gathering place, 55</td>
</tr>
<tr>
<td>Keeping place, 6</td>
<td>Special holiday memory, 65</td>
</tr>
<tr>
<td>Myspace, 62</td>
<td>Myspace, 32</td>
</tr>
<tr>
<td></td>
<td>Keeping place, 10</td>
</tr>
</tbody>
</table>

*Figure 8.5: The respondents’ conceptual place preferencing for their favourite and valued everyday places (favourites n= 307; everyday n= 288).*

The survey of places that matter to adolescents reported on in this chapter extended beyond the young people’s favourite and valued everyday places to consideration of nature and
natural places. The positioning of nature in the survey respondents’ lives will be detailed in a forthcoming section of this chapter but for the purposes of comparison, the most popular conceptual place within each of the place types focused on in the survey are listed in Table 8.5. Table 8.5 lists the most popular conceptualised places identified by the survey respondents under each of the place focus types asked about in the survey. This summary table of the conceptual places most popular with the survey respondents further supports the findings detailed in this chapter; namely that places the young people most valued were their homes, extended family locales and places to gather for activities with friends. Table 8.5 demonstrates that even when the survey forced the adolescent participants to focus beyond the free-choice favourite and valued everyday places, and constrained their thinking to natural and school-based places, they were consistent in their preferencing of homeplaces and gathering places through the preferencing of these within their valued nature and school related places. This trend is compatible with Owens and McKinnon’s (2009) proposition that the places and place-related activities adolescents value are associated with the developmental processes that are significant for this life stage. They argue that adolescents need to be engaged in physical and social activities, as well as psychologically comforting connectedness and consolidation activities, for their physical, mental, social and emotional health and wellbeing. Alignment of the adolescents’ place preferencing with their developmental needs also accords with my theoretical framework that identifies adolescent processes as factors that mediate place engagement.

Table 8.5: THE MOST POPULAR CONCEPTUALISED PLACES IDENTIFIED IN THE SURVEY

<table>
<thead>
<tr>
<th>Place focus in survey</th>
<th>Most popular concept of place articulated by the survey respondents</th>
<th>Proportion within group %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyday preference 1</td>
<td>Homeplace</td>
<td>65</td>
</tr>
<tr>
<td>Everyday preference 2</td>
<td>Gathering place</td>
<td>40</td>
</tr>
<tr>
<td>Everyday preference 3</td>
<td>Gathering place</td>
<td>31</td>
</tr>
<tr>
<td>‘All time favourite’ preference 1</td>
<td>Homeplace</td>
<td>23</td>
</tr>
<tr>
<td>‘All time favourite’ preference 2</td>
<td>Homeplace extended</td>
<td>27</td>
</tr>
<tr>
<td>‘All time favourite’ preference 3</td>
<td>Homeplace</td>
<td>27</td>
</tr>
<tr>
<td>Natural or ‘green’ place preference 1</td>
<td>Homeplace extended</td>
<td>42</td>
</tr>
<tr>
<td>Natural or ‘green’ place preference 2</td>
<td>Homeplace</td>
<td>48</td>
</tr>
<tr>
<td>Natural or ‘green’ place preference 3</td>
<td>Homeplace</td>
<td>39</td>
</tr>
<tr>
<td>Favourite natural environment</td>
<td>Homeplace extended</td>
<td>59</td>
</tr>
<tr>
<td>Most valued place at school</td>
<td>Gathering place</td>
<td>92</td>
</tr>
</tbody>
</table>
Further support for the surveyed adolescents preferring their *homeplaces* and places for being active was gathered through a place/space ranking activity in the survey, where participants ranked nominated places (identified as appropriate by the research team in Phase 2, Think Tank, research activities) from 1 (most important) to 10 (least important). The ranking results from the 138 responses to this survey question are represented in Figure 8.6 that enables the key trends in the rankings to be visualised (for the numerical data, refer to the descriptive statistics matrix in Appendix Q).

**Figure 8.6: Place rankings by percentage of responses for each nominated place within the 1 (most) to 10 (least) important places rankings.**

From Figure 8.6 the pattern of the young people’s rankings of specific places can be seen. The most importantly ranked places (rankings of 1, 2, 3) are clustered around bedroom, sporting ground, regular family holiday/weekender and backyard. The graph peaks for these places
early in the ranking list indicates the popularity of these places. The least valued places with peaks for the lower rankings of 10, 9, 8, are seen for Facebook (with the most votes for one item overall at 43%, ranking Facebook as the least important) and the playground at school. Responses were polarised for the ‘Other online sharing spaces’ with both most and least importing ranking status recording as somewhat high. For the remaining places the responses were spread across the 1 - 10 rankings with only moderate fluctuations.

The mean ranking for each of these nominated places, as shown in Table 8.6, gives an indication of the average importance positioning within the respondents’ rankings of the places. Again confirming the importance of homespaces (in the ranking as bedroom). While Facebook, at almost the last in the averages, reflects a low rating by most respondents and as seen previously in the dispersal graph in Figure 8.6. Although some of the respondents (12%) had the directly opposite view, rating Facebook as their top of the 10 place alternatives.

Table 8.6: AVERAGE RATING NUMBER FOR EACH PLACE OPTION IN THE 1-10 (MOST TO LEAST) IMPORTANCE RANKING (n=138)

<table>
<thead>
<tr>
<th>Place options for ranking</th>
<th>Average rating (1-10) for the 138 responses*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedroom</td>
<td>3.56</td>
</tr>
<tr>
<td>Beach</td>
<td>4.35</td>
</tr>
<tr>
<td>Backyard</td>
<td>4.89</td>
</tr>
<tr>
<td>Sporting ground</td>
<td>4.93</td>
</tr>
<tr>
<td>Regular family holiday/weekend place e.g. farm, beachhouse</td>
<td>5.13</td>
</tr>
<tr>
<td>Other online sharing spaces, e.g. gaming, YouTube, Instagram, Twitter</td>
<td>5.33</td>
</tr>
<tr>
<td>Recreation areas (not sporting) at school</td>
<td>6.17</td>
</tr>
<tr>
<td>Recreation areas (not sporting) in your local area e.g. park</td>
<td>6.40</td>
</tr>
<tr>
<td>Facebook</td>
<td>7.07</td>
</tr>
<tr>
<td>Playground at school</td>
<td>7.19</td>
</tr>
</tbody>
</table>

**NOTE:** Lower mean values indicate greater importance in the 1 – 10 ranking, similarly the higher values representing the least importance ranking.

Section summary

Through the adolescents’ responses to a number of open, focused and closed questions in the survey, the places they value have been revealed to be predominantly home and family places, with their own bedrooms and the extended family geographies of regular holiday/weekend
homes included as important within this category. The other key preference was for places where the young people can be with their friends, being active, having fun and generally enjoying life; their ‘gathering places’.

With the places that matter to the surveyed adolescents now defined, I turn to an exploration of the ways they engaged with these valued places.

Interactions

When identifying their valued places in response to the survey questions, the adolescents described not just locations but also the ways they engaged with these settings, explaining how and why they valued and interacted with the places. The person-environment and person-person interactions within a specified location contribute to the creation of the construct ‘place’, as places are relational (Bonnett, 2013; Greenwood, 2013; Gustafson, 2001; Stedman, 2003; Stevenson, 2011). The interactions with their priority places described by the survey respondents included physical (embodied) interactions (e.g. moving through places as part of sport, enjoying eating or other sensed experiences), social and emotional interactions (e.g. finding comfort with quiet times at home) and cognitive interactions (e.g. learning, reflecting). Malone (2007b) describes four main child-environment relationships: physical, social, nature-connectedness and learning. The place interactions described by the adolescent survey participants generally aligned within Malone’s place interaction dimensions and are listed in Table 8.7. Table 8.7 is presented as an introduction to the range of interactions the adolescents associated with their valued places, the interaction details varied according to the focus on everyday, favourite, natural or school places as will we examined in detail in this chapter section.

Table 8.7 TYPES OF PLACE INTERACTIONS DESCRIBED BY THE SURVEY RESPONDENTS

| Physical, movement, food etc. | Learning |
| Experiencing, fun | Virtual |
| Socialising | Iconic, meaning, memory |
| Connectedness, belonging | Safety/safe haven |
| Appreciating natural elements | Privacy/alone/my space |
| Reflective, relax, ‘chill’ | Education - future/life focus |

NOTE: Generic listing – variations occurred dependent on place focus.
The interactions the adolescents described in relation to their valued places, as listed in Table 8.7, incorporated Malone’s categories of physical/embodied experiences (movement, experiencing), social experiences (socialising, belonging, iconic meaning), nature-related experiences and learning, but extended beyond these dimensions into psychological comfort experiences (relax/reflect, security, personal space) and a few into virtual interactions. Malone later (2008) proposed a modified version of her young person-environment interaction dimensions to include emotional wellbeing and personal development domains recognising, as I have in this study, that young people’s interactions with their everyday and valued places includes psychological and mental health impacts as well as the more obvious physical and social development and learning. Malone (2007b) included young people’s engagement in virtual spaces as examples of social interactions. I separated out virtual interactions for this study in order to shine a spotlight on the impact of this rapidly expanding place of engagement in young people’s lives, consistent with Malone’s (2007b) contention that young people’s preferences in place making activities warrant further attention.

Within all divisions of place inquiry in the survey – valued everyday places, favourite places, ‘green’ and natural places, and school places – the adolescent participants’ place interactions were dominated by a preference for socialising and being actively engaged with places, as shown in Table 8.8. The summary listing in Table 8.8 of the adolescents’ most frequently noted ways of interacting with and in all divisions of place in the survey indicated a preference for active engagement with places (often with friends). This active engagement with place included doing things, being physically active, ‘hanging out’ and socially connecting with friends and family; all activities consistent with young people’s preferences in other place studies (Abbott-Chapman & Robertson, 2009; Korpela et al., 2002; Owens, 1988, 1994; Owens & McKinnon, 2009). Being active and social are adolescent developmental imperatives that noticeably influenced the participants’ preferred place interactions as illustrated in Table 8.8 and as predicted through my model of place engagement mediating factors outlined in Chapter Four, Theoretical Framework.

As one respondent commented at the end of the survey, “I think teenagers like to have their own space but also like to be with friends and experience new things. This might not be everyone but this defines me.”
Table 8.8: THE MOST POPULAR PLACE INTERACTIONS IDENTIFIED IN THE SURVEY

<table>
<thead>
<tr>
<th>Places identified:</th>
<th>Most popular type of interaction</th>
<th>Proportion within group %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyday preference 1</td>
<td>Connectedness/belonging</td>
<td>29</td>
</tr>
<tr>
<td>Everyday preference 2</td>
<td>Socialising</td>
<td>28</td>
</tr>
<tr>
<td>Everyday preference 3</td>
<td>Physical/body/movement</td>
<td>32</td>
</tr>
<tr>
<td>All time favourite preference 1</td>
<td>Experiencing/living/doing/fun</td>
<td>32</td>
</tr>
<tr>
<td>All time favourite preference 2</td>
<td>Experiencing/living/doing/fun</td>
<td>30</td>
</tr>
<tr>
<td>All time favourite preference 3</td>
<td>Experiencing/living/doing/fun</td>
<td>27</td>
</tr>
<tr>
<td>Natural or 'green' place preference 1</td>
<td>Experiencing/living/doing/fun</td>
<td>32</td>
</tr>
<tr>
<td>Natural or 'green' place preference 2</td>
<td>Physical/body/movement</td>
<td>36</td>
</tr>
<tr>
<td>Natural or 'green' place preference 3</td>
<td>Physical/body/movement</td>
<td>50</td>
</tr>
<tr>
<td>Favourite natural environment</td>
<td>Experiencing/living/doing/fun</td>
<td>38</td>
</tr>
<tr>
<td>Most valued place at school</td>
<td>Socialising</td>
<td>34</td>
</tr>
<tr>
<td>Favourite outdoor experience</td>
<td>Physical/body/movement</td>
<td>25</td>
</tr>
</tbody>
</table>

The identification of favourite and everyday places in the survey was free choice while other divisions of place inquiry in the survey of natural, favourite natural and school places constrained the participants to consider only locations that met these criteria. Despite these restrictions the same place interactions were preferred by the majority of the adolescents for all divisions of place inquiry as illustrated in Table 8.8. This consistency is fitting in consideration of the adolescents’ developmental needs for social and stimulating experiences (Brown et al., 2002; Matteson, 2012; Owens & McKinnon, 2009; Spear, 2000; Stevens et al., 2007). The everyday and school places are where young people are primarily located at this phase of their life. This is where they feel connected to and where they interact with the people that affirm and reflect their social positioning, which is in accord with the survey respondents preferencing of connectedness and socialising interactions associated with their everyday, including school, places as evident in Table 8.8. The other surveyed locations – favourite, natural and outdoor places – were where the majority of the participants preferred embodied experience of the place – the active, physical, sensuous and playful experiences - which are similarly accordant with adolescents’ developmental tasks of ‘exercising’ their physical, cognitive and social selves.

37 A full frequency distribution listing of the interactions the survey respondents described for their favourite, everyday and valued places is shown in Appendix O.
I now move to consider each of these key adolescent interactions the survey respondents listed, of connectedness, socialising and actively engaging in experiences, in addition to their place interactions related to meaning- and identity-making, and seeking retreats that are developmentally important interactions evident in their responses.

**Connectedness**

Places of belonging that the young people surveyed felt connected to were predominantly those associated with home and family - 59% of all their valued everyday places and 69% of all their favourite places were *homeplaces*, that is their home and the extended family unit locations.

**Relationship between EVERYDAY places and place interactions**

The association between valued everyday (conceptual) places and the interactions survey participants described for these places was statistically related as shown by a chi-square test for independence. As can be seen by the frequencies cross tabulated in Table 8.9, there is a significant relationship between the first preference everyday places and the interactions in these places, $X^2 (24, N = 117) = 157.45, p < .001$. In particular it is evident from Table 8.9 that connectedness (35 of the 117 cross tabulations) was the most frequent association that was with *homeplace*. The next most frequent cross tabulation evident from Table 8.9 was privacy (15 of the 117 cross tabulations) for the place category of bedroom. When viewed in combination these two frequencies reflect the sense of belonging the young people felt towards their home and family, and the claiming of their personal bedroom space within the home.

This association between the adolescents’ conceptualised everyday places and the way they engaged with these places was also shown to be statistically correlated through a Spearman’s rank-order correlation computation that indicated there was a substantial correlation between the respondents’ first preference (conceptualised) everyday place and their place interactions, $r_s = .581, n = 117, p < .01$.

The association between the everyday places and place interactions continued into the respondents’ second and third preference everyday places, which are indicated as related and statistically correlated with the place interactions: The second preference everyday places and place interactions are related, $X^2 (32, N = 90) = 147.50, p < .001$ and modestly correlated, $r_s = .22, n = 90, p < .05$. The third preference everyday place and place interactions are related, $X^2 (28, N = 73) = 109.64, p < .001$ and substantially correlated, $r_s = .533, n = 73, p < .01$. Again
indicating there was a relationship between the everyday places the participants valued and the ways they interacted with these places.

**Table 8.9: CROSS TABULATION BETWEEN PRIORITY (1st PREFERENCE) EVERYDAY PLACES AND INTERACTIONS**

<table>
<thead>
<tr>
<th>Everyday (conceptual) places</th>
<th>Interactions</th>
<th>Physical Experience</th>
<th>Socialising Connectedness</th>
<th>Renewal</th>
<th>Learning</th>
<th>Virtual</th>
<th>Safe haven</th>
<th>Privacy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedroom (Myspace) Homeplace</td>
<td>Count</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Homeplace extended Gathering place</td>
<td>Count</td>
<td>2</td>
<td>20</td>
<td>0</td>
<td>35</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>3</td>
<td>23</td>
<td>7</td>
<td>38</td>
<td>18</td>
<td>1</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

[Note: $X^2 (24, N = 117) = 157.45, p < .001$]

**Relationship between FAVOURITE places and place interactions**

The young people’s (conceptualised) favourite places and interactions for these favourite places also exhibited a linkage between the family home bases and interactions of connectedness and belonging. The adolescents’ favourite place interactions covered a broader range of experiences than that with everyday places, with the inclusion of nature appreciation and memories/iconic meaning interactions. Learning did not rate at all as an interaction associated with the respondents’ first preference favourite places as it did in everyday place interactions. Their conceptualised places also expanded on those of the everyday valued places to include favourite special holiday places and places that hold special significance to them through special memories or as symbols of special meaning, consistent with Abbott-Chapman and Robertson’s similarly noted places with “memory overlay” (2009, p. 425). This is exemplified by one girl’s explanation of her favourite place listing of the summit of Mt. Stirling, explaining the meaning this place has for her as a personal symbol: “Because it was an achievement to reach the summit with a group of really brilliant people.”

The association between the adolescents’ favourite (conceptual) places and the interactions survey participants described for these places was also statistically related as shown by a Chi-square test for independence. As can be seen by the frequencies cross tabulated in Table 8.10,
there is a significant relationship between the first preference favourite places and the interactions with these places, $\chi^2 (45, N = 110) = 157.73, p < .001$. The marked association between the family bases and connectedness interactions are evidence in the cross tabulations seen in Table 8.10 where homeplaces represented the highest crosstabulation counts (13 extended, 8 home and 1 bedroom, totaling 22 overall for all homeplaces).

This association between the young people’s conceptualised favourite places and the way they engaged with these places was also shown to be statistically correlated through a Spearman’s rank-order correlation test that indicated there was a low correlation between the respondents’ first preference (conceptualised) favourite places and their place interactions, $r_s = .292, n = 110, p < .01$.

Table 8.10: CROSS TABULATION BETWEEN PRIORITY (1st PREFERENCE) FAVOURITE PLACES AND INTERACTIONS

<table>
<thead>
<tr>
<th>Favourite (conceptual) places</th>
<th>Interactions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical Experience-</td>
<td>Socialising</td>
</tr>
<tr>
<td>Bedroom (Myplace)</td>
<td>Count 1</td>
<td>5</td>
</tr>
<tr>
<td>Homeplace</td>
<td>Count 4</td>
<td>7</td>
</tr>
<tr>
<td>Homeplace extended</td>
<td>Count 2</td>
<td>5</td>
</tr>
<tr>
<td>Gathering place</td>
<td>Count 7</td>
<td>3</td>
</tr>
<tr>
<td>Keeping place</td>
<td>Count 2</td>
<td>0</td>
</tr>
<tr>
<td>Holiday special</td>
<td>Count 0</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>Count 16</td>
<td>37</td>
</tr>
</tbody>
</table>

[Note: $\chi^2 (45, N = 110) = 157.73, p < .001$]

As found with the participants’ valued everyday places, their second and third favourite place listings also followed the relational trends evident in the first preference favourite place responses - of a relationship between their favourite places and interactions, and a marked association between homeplaces and connectedness/belonging interactions. The second preference favourite place and place interactions evidenced significant associations through chi-square computations, $\chi^2 (45, N = 110) = 129.91, p < .001$, and a low correlation from a
Spearman’s rank-order computation, \( r_s = .23, n = 110, p < .01 \). The third preference favourite places and interactions showed an association, \( X^2 (35, N = 71) = 101.64, p < .001 \), but not a statistically significant correlation, \( r_s = .12, n = 71, p = .3 \).

In contrast to the valued everyday preferencing, the survey respondents broadened their favourite place focus from predominantly the home to include their extended homebases, so a broader homeplace range that I term homeplaces. Enjoying experiences on special holidays also rated highly in the adolescents’ descriptions of their favourite places, gesturing towards one of the other priority interactions of the surveyed adolescents of actively engaging with their valued places. The active engagement with place is considered in more detail as a separate place interactions category later in this chapter.

The marked association noted between the participants’ homeplaces and connectedness/belonging interactions have previously been represented in comments from the young people included in the earlier discussions about their home and bedroom. Additional illustrative participant comments shown below were typical of the many pithy replies about the respondents’ reasons for valuing home, family and extended family unit locations; implicit in these concise responses is the message that the reason for the connection is so obvious it almost does not need to be stated:

“It's where I live”

“I love my bedroom”

“That my family is there along with my pets and other belongings.”

“[At home] I feel comfy and safe”

" It is where the people I'm the most closest to are”

“My grandparents live there”

Connectedness to the people (and pets) of the adolescents’ homeplaces was often an integral aspect of their sense of belonging to this special place. Similarly, Mannion et al.’s (2006) investigation into young people’s valuing of outdoor places identified that interpersonal interactions was a key element contributing to the young people’s valuing of places. Chawla and Palmer have identified that significant adults mediate young people’s relationships with natural places (see for example Chawla, 2007 and Palmer & Suggate, 1996). As illustrated by the participants’ comments above, family was integral to the young people’s negotiation of their person-place relationship to their homeplaces, including the natural elements within
homeplaces. This is exemplified by one female informant’s repeated references throughout the survey to her connection to her grandmother and her grandmother’s garden:

<table>
<thead>
<tr>
<th>My 2nd preference everyday valued place is:</th>
<th>My Nana’s Home</th>
</tr>
</thead>
<tbody>
<tr>
<td>What makes this place valuable to me is:</td>
<td>My Nana is a lovely woman, and her house has a lot of childhood memories in it. My nana’s home is warm, friendly, and cosy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>My 2nd preference 'green’ place is:</th>
<th>My Nana’s Garden</th>
</tr>
</thead>
<tbody>
<tr>
<td>What makes this place valuable to me is:</td>
<td>My Nana’s Garden is completely of her making, and I used to help her with the creation of it. When you walk through the paths she used to walk in, you get a feel of her presence there. I love this place the most I think, because of all the memories I have in it.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How I learn about nature / the natural environment?</th>
<th>My Nana and Mum are a big influence on me when it comes to Nature. They were the ones who taught me everything I know, and watching gardening programs on TV influenced me too.</th>
</tr>
</thead>
<tbody>
<tr>
<td>My favourite natural environment:</td>
<td>I value my Nana’s garden the most - answered this in questions above.</td>
</tr>
</tbody>
</table>

Other participants noted similar self-family-environment connectedness in relation to their valued places. The interpersonal interactions associated with the adolescents’ valued places was an interaction theme that was frequently referred to in the participants’ responses in relation to all categories of their valued places. Accordingly I now turn to focusing on this interaction theme of social activities.

**Socialising**

Friend-related words were the most frequently occurring group in preliminary analyses of survey data after the functional loves-related word cluster (love, loved, loves, lovely), with place and fun related words as third and fourth most frequently occurring word groups in the adolescents’ open ended responses in the survey (refer to Appendix K for the word cloud visualisation of most frequently occurring words used by the adolescents in the survey). This early hint that socialising was an important part of the surveyed adolescents’ places and interactions was, as expected according to adolescent developmental needs (Berzonsky & Adams, 2003; Spear, 2000), a clearly evident interaction theme that has already been alluded in this chapter: The most prevalent activity on a typical day was being with friends; playing
sports with friends was part of interaction at valued community places; school as a valued place for being with friends; and ‘gathering places’ emerging as a conceptualised (thematic reduction) place, all point to the importance of socialising with friends as a valued activity in the young people’s place interactions. This finding is consistent those of other researchers who identify socialising as young people’s important reason for visiting favourite places (Korpela et al., 2002), as a priority in engagement with outdoor places (Mannion et al., 2006; Munoz, 2009; Owens 1988, 1994; Owens & McKinnon, 2009), and as part of being active and having fun associated with favourite place preference interactions (Abbott-Chapman & Robertson, 2009).

The survey respondents viewed school as a valued place for socialising. A Pearson product-moment correlation test was computed to assess the relationship between their participants’ valued school locales and the ways the participants engaged with these. There was a marked correlation, $r = .58$, $n = 51$, $p < .01$. The number of cases was lower than in previous correlations as this was at the end of the survey (questions 44 and 45) and so influenced by participants’ survey fatigue. Additional tests confirmed the relationship. It can be seen from the frequencies cross tabulated in Table 8.11, there is a marked association between gathering places at school and socialising from a chi-square test for independence conducted to examine the relationship between the participants’ conceptualised places and interactions, $X^2 (5, N = 51) = 51.0, p < .001$.

<table>
<thead>
<tr>
<th>Most valued school places</th>
<th>Interactions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical</td>
<td>Experience</td>
</tr>
<tr>
<td>Gathering place</td>
<td>Count</td>
<td>8</td>
</tr>
<tr>
<td>Keeping place</td>
<td>Count</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>8</td>
</tr>
</tbody>
</table>

[Note: $X^2 (5, N = 51) = 51.0, p < .001$]

School plays a major role in affluent minority young people’s lives. The survey participants have indicated that, from their perspective, social interaction is the key dimension of their
school experience – learning rates little mention. One interpretation from this could be that with the increasing reduction in independent mobility of young people of affluent, protective parents (Malone, 2007a), school has become young people’s main venue for gathering with their peers. An interpretation that resonates with Morrow's (2007) finding from her study of adolescents in rural England where social interactions were more important than actual places in engendering young people’s sense of belonging.

The following participants’ survey contributions represent this preference for socialising interactions associated with their valued places:

“I chose these places because this is were i can meet with my friends and have a great time.”

“[School] Is where all my friends are”

My favourite places are “Places that include a lot of people” because “I love spending time with people and socialising with one another”

An everyday valued place is the “Classroom - Because it’s where I spend a lot of time with people that I really like”

An everyday valued place is the “Park [for] hanging out with friends”

My favourite non-sporting outdoor experience is “Biking around with my friends. I think it's fun to spend time with friends exploring while biking.”

“My favorite thing outdoors is when I get to get away from everything and just be with friends and have fun - I like that I get to just get away from doing anything I have to do and just do what I want to do”

When ranking specific activities they preferred in local ‘green’ places and in their school grounds, the survey participants rated playing/hanging out, having fun and being with friends as their most preferred activities in both locations as shown in Table 8.12, again reinforcing the adolescents’ valuing of places for socialising and the connection with choices influenced by their adolescent development imperatives.
Table 8.12: PARTICIPANTS’ RANKING (AVERAGES) OF ACTIVITIES IN LOCAL ‘GREEN’ PLACES AND IN THEIR SCHOOL GROUNDS – MOST TO LEAST (1-10) RANKINGS

<table>
<thead>
<tr>
<th>Activity choices</th>
<th>School grounds (n = 131)</th>
<th>Local ‘green’ place (n = 122)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(in rank order most to least liked)</td>
<td>(almost in rank order most to least liked – positions 3-5 mixed to align with activity names)</td>
</tr>
<tr>
<td>Playing / hanging out, having fun</td>
<td>3.35*</td>
<td>3.25</td>
</tr>
<tr>
<td>Being with friends</td>
<td>3.41**</td>
<td>3.85^</td>
</tr>
<tr>
<td>Playing sports/games</td>
<td>5.09</td>
<td>5.35</td>
</tr>
<tr>
<td>Exploring and finding out interesting things</td>
<td>5.38</td>
<td>5.02</td>
</tr>
<tr>
<td>Being peaceful, quiet and thoughtful</td>
<td>5.56</td>
<td>4.79</td>
</tr>
<tr>
<td>Doing adventure and challenge activities</td>
<td>5.66</td>
<td>5.63</td>
</tr>
<tr>
<td>Getting away from adults / being private</td>
<td>6.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Doing anything in the outdoors, nicer than inside</td>
<td>6.17</td>
<td>6.43</td>
</tr>
<tr>
<td>Hands on learning about something new</td>
<td>6.92</td>
<td>7.34</td>
</tr>
<tr>
<td>Avoiding work and responsibilities</td>
<td>7.45</td>
<td>7.35</td>
</tr>
</tbody>
</table>

* highest ranking response count overall at 34.4% for rank of 2 and ** second highest ranking response count overall of 30.5% for Ranking of 1.
^ third highest ranking response count overall for this group of rankings with 24.6 % at Ranking 1 after 28.75% ranked adventure activities at number 6 and 26.2% rated being quiet and peaceful at the number 1 ranking.

The adolescents’ responses in the survey often interwove socialising, connectedness/belonging and energetic, fun experiences in explaining their interactions with their valued places, echoing the Melbourne co-researchers’ plurality of place interactions related to places of value. A recurring message was that actively engaging with place-based experiences was preferred. Accordingly I now turn to focusing on the survey respondents place interactions that involve being active.

**Being active**

As I have already displayed in Table 8.8 on page xx when introducing this chapter section on the adolescents’ place interactions, actively engaging with places by moving, sensing and feeling interactions were the most popular (9) categories of interactions in all 12 varieties of place-related survey questions. Being active, having fun experiences, usually with friends,

38 Detailed survey ranking response statistics can be found in Appendix Q.
dominated the adolescents’ preferred place interactions, consistent with Chawla’s (2002) contention that important places for adolescents are those that meet their needs for social and physical interactions, and concordant with similar place studies with young people (Abbott-Chapman & Robertson, 2009; Korpela et al., 2002; Mannion et al., 2006).

The very physical nature of the young people’s interactions with places was brought to light in the section of the survey that focused on their favourite (non-sporting) outdoor experience. The adolescents reported on activities such as “When I climbed the Sydney Harbour Bridge. It was so intense and adrenaline full”; and “tree surfing - because it was very fun and different”; as well as “Paintball - It is heaps of fun”.

In general the boys valued the more physical interactions with their important places. For example 23% of boys preferred sporting grounds at school compared to 7% girls while their other school places preferences were similar. In ranking activities in the school grounds, 19% of boys rated playing sports/games as their first preference compared with only 6% of the girls. Similarly in their local ‘green’ places 21% of boys rated playing sports/games as their most preferred activity while only 6% of girls did. In their favourite outdoor experiences more boys (27%) preferred the physical aspects of the experiences than girls (24%), whereas more girls (37%) preferred the social aspects of the experience than boys (14%).

The physically active, interpersonal and place affinity interactions of the survey participants’ valued places were the most strongly represented modes of interaction, as have been presented in this discussion of the survey findings in relation to the adolescents’ place connectedness, socialising and being active interactions. The participants’ interactions related to their developmental task of identity creation, their place meaning-making and the positioning of nature were not as obvious through the adolescents’ survey responses but still of interest to this study. Therefore I now turn to exploring the survey place interactions data from, first, a place-making perspective and then to complete this chapter section considering the adolescents’ place interactions, I will present the young people’s perceptions of places that are safe havens.

*Place-making*

In developing a relationship with places, place attachment, place identity and meanings associated with place, are all aspects of developing a sense of place (Kudryavtsev et al., 2011). Young people’s favourite place preferencing is aligned with place identity and therefore with self-identity construction, one of adolescents’ developmental tasks (Owens & McKinnon,
The survey participants’ explanations of their favourite and valued everyday places at times exhibited perceptions of meaning associated with places and place identity. Figure 8.7 displays the relative importance the participants assigned their favourite and valued everyday places, from the place just as a background to the place holding meaning for the young person or being incorporated into their sense of who they are and their place in the world, that is their self-identity. In contrast to the valued everyday and favourite place relationships of Figure 8.7, the other divisions of place investigated through the survey (school, local ‘green’ and favourite natural) were overwhelmingly perceived as affording or enabling the young person’s interactions.

Special places of meaning, both famous and every day ‘sacred’ places help young people define their identity (Chawla, 2002). This was particularly evident in a number of the young people’s valuing of Melbourne’s iconic sporting venue, the MCG, where world-renowned cricket matches and the very popular national game, Australian Rules football matches are played. With comments such as “It is valuable to me because I love watching Football” and "LOVE WATCHING THE BLUES!” it was evident that this iconic place held meaning for these young people. Other famous and more personal places were ‘keeping places’ of meaning, exemplified by this favourite place listing of “Uluru [Ayres Rock, because of] the history and the amazement of the rock” and an everyday example of “Mum and dads old factory - It was my first house”.

Figure 8.7: Favourite and valued everyday place relationship categorisations.
For some of the young people how they perceived themselves and what was important to them, that is their developing self-concept, was apparent through their connection to their valued places. For these adolescents their place interactions contributed to identity production (Malone, 2007b), which was represented through the following two informants’ contributions to the survey:

<table>
<thead>
<tr>
<th>Survey question</th>
<th>Dancing Girl’s responses</th>
<th>Soccer Boy’s responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>An everyday valued place:</td>
<td>City</td>
<td>Beachside Soccer Club</td>
</tr>
<tr>
<td>What makes this place valuable to me?</td>
<td>I love the city because I do dancing</td>
<td>I play soccer for my team</td>
</tr>
<tr>
<td>A ‘green’ place I value:</td>
<td>Park</td>
<td>Front yard</td>
</tr>
<tr>
<td>What makes this place valuable to me?</td>
<td>I love the park because I can do my now thing and play with my brothers</td>
<td>I exercise, play soccer and have fun</td>
</tr>
<tr>
<td>My all time favourite place is:</td>
<td>Dancing [Studio]</td>
<td>Beachside Soccer Club</td>
</tr>
<tr>
<td>What makes this place my favourite is:</td>
<td>Dancing because I do it three times a week and I love doing it</td>
<td>I play soccer for my team</td>
</tr>
<tr>
<td>School grounds improvements needed are:</td>
<td></td>
<td>Put a full size soccer pitch with goals</td>
</tr>
</tbody>
</table>

Other participants such as ‘Basketball Boy’ and ‘Horse-crazy Girl’ contributed comments such as “I am obsessed with basketball” and “I spend a lot of time there and love horses” that demonstrated both identity and meaning connected with their valued places. Many of the survey participants also commented about places they loved and/or they felt proprietary about, particularly in reference to their home or their favourite place, enabling an insight into their place identity and therefore their self identity, as represented by comments “My bedroom - For me to have my own place, to think and have my private place.”, “Courts [because] I am obsessed with basketball and I like to improve my game” and “It’s my home, where I live, where my family lives and all my friends are close by.”

The adolescents’ home and personal bedroom were also discussed in terms of safety and security, highlighting a minor but persistent trend that emerged from the survey responses that I will now consider.
Safe havens

Similar to Owens and McKinnon’s (2009) study with teenagers in California, the young people in this study identified places that provided an escape, a place of security to relax and settle, what Owens and McKinnon describe as restorative places that provide “psychological comfort” as part of their developmental need for thinking and reflective time (p.51). These safe havens mentioned by the survey participants were predominantly the home, including their bedroom, and places in the outdoors, as represented by the following survey responses:

“[Home] It's a safe haven and place to relax after school.”

“The fact that I grew up in my home, helps me to relax, and forget everyday worries. My Parents are also mostly home, and they comfort me when I am worried.”

“Beach - It is a peaceful place to me that I find relaxing and enjoying”

“My house - Because i love my home because i can just chill when i get home and do nothing ;)”

“My Bedroom - I get quiet time to myself and that is where I use the computer.”

Places that provided the surveyed adolescents with a restorative retreat have similarly been noted in other places studies with young people where such retreats were their own private space (Sommer, 1990), home (Abbott-Chapman & Robertson, 2009; Korpela et al., 2001), and nature (Abbott-Chapman & Robertson, 2009; Korpela et al., 2001; Sommer, 1990). Although the usefulness of nature as a restorative environment for adults has been demonstrated, this relationship has not always been evident with adolescents who have also found places of restoration that include shopping malls and sporting venues (Korpela et al., 2002) and, as identified by the Melbourne co-researchers in this study and reported in the previous chapter, in the escape into electronic gaming.

The adolescents in the survey did value connections with nature, including the family pets, as beneficial for their wellbeing, consistent with other findings (Barratt Hacking et al., 2007a; Bingley & Milligan, 2004; Chawla et al., 2014; Faber Taylor & Kuo, 2006; Korpela et al., 2002, 2014; Malone, 2008; Munoz, 2009). The personal and emotional wellbeing benefit of contact with nature identified by survey participants is represented by the following comments:

“My Dog, Bella, is the world to me. I love her so much, and being next to her, I feel that I can comfort her, and by doing this, she comforts me.”
“I love places that have a beautiful view because it makes me happy and appreciate what I have”

“(The) Oval - It’s a good place to be calm and think about things”

“Beach - Its a place where i always go to think”

“Park - It is a good and relaxing place to think about everything”

“If I ever feel stressed, I hang out at the beach. I like to listen to the gentle waves crashing, and playing in the sand. I live close to the beach”

The Melbourne female co-researchers photographed and discussed natural environments as places of restoration more than the males in the research groups, as outlined previously in Chapter Seven. The survey responses confirmed that the girls gravitated more towards natural environments than the boys with 41% of the girls’ favourite places identifiable by type being nearby or ‘wild’ nature and 22% of their valued everyday places were also natural environments. In contrast, 31% of the boys specified natural environments amongst their favourite places and only 14% identified nearby and ‘wild’ nature places as valued everyday locations. The girls rated their school grounds as more important for being quiet and thoughtful than the boys (62% compared with 47%), consistent with a gender difference in seeking nature for restoration noted by Korpela et al. (2002).

Section summary

In this chapter section the surveyed adolescents’ interactions with their valued places have been presented. Similar to previous youth place studies, their preferences were for home/family base interactions related to a sense of connectedness, belonging and psychological restoration; and a strong preference for active, fun and friends related interactions. Their interactions contributing to a sense of place and construction of place- and self-identity were noted, as was the seeking out of residential and natural places to retreat to for respite, comfort and reflection time. Such interactions align with adolescents’ developmental tasks, my theoretical framework and Malone’s (2007b) classification of the different facets of young people’s place interactions, namely the physical, social and natural. Malone’s final category of the “learning child” (p. 10) was not strongly evident in the surveyed adolescents’ valued place interactions.
Place based learning will be considered further in the final chapter section but before this I now turn to considering how the adolescents in the survey positioned nature in their lives.

**Positioning of nature**

As identified in the previous chapter section, nature played a role in the adolescents’ quiet, restorative times between active ‘play’ interactions with their valued places but this was not a major preference of the surveyed adolescents. As a focus of this study, the positioning of nature in the young people’s lives was a feature of the survey instrument beyond inquiring into the adolescents’ valued places, particularly considering recent incorporation of digital spaces into young people’s lifestyles. Their perceptions about nature and outdoor activities as well as their positioning of nature in their lives will be presented in this chapter section while their perceptions of their school grounds nature for activities and learning will be considered in the following chapter section.

**Valued natural places**

The types of places the surveyed adolescents preferred in their open response listings for their favourite and everyday places were predominantly built environments consistent with their preferencing of their *homeplaces* as their dominant valued place. Nature was not highly positioned in their place preferences as can be seen in Figure 8.8, where nearby nature and ‘wildscapes’ were valued but not by the majority of the participants. This finding is consistent with Owens’ (1994) study of teenagers, also from Melbourne, who also preferenced built places and Korpela et al.’s (2002) findings of Finnish young people’s dominant preferences for residential and sporting places. Although these findings differ from some previous adolescent place studies where natural environments were included in young people’s priority places - Abbott-Chapman and Robertson’s study in Tasmania, Australia (2009); Finland older teens and young adults research by Korpela et al. (2001); Owens’ study in California (1988) and Sommer’s research with adolescents in Estonia (1990). Thus the positioning of nature in young people’s lives in these affluent minority contexts is not straightforward. This is in direct contrast to the less-privileged majority context young people in remote India that participated in the earlier phase of this research study (as presented in Chapter Six), who positioned nature as highly valued and integral to their lives.
Very few survey participants preferred technology plug-in places as their favourite and most valuable everyday places, however, as discussed previously in this chapter, the young people’s valuing of bedrooms and family ‘technology hubs’ for connection to screen-based interactions echoes Louv’s (2007) emotive calls for concern that our young people are staying indoors where the electrical outlets are.

When the survey participants’ attention was directed towards identifying the natural places they valued in their lives, numerous places that included elements of nature were nominated, as can be seen in Table 8.13, with the beach, park, backyard, forests/bush and the school ground the most popular.
Table 8.13: PLACES IDENTIFIED IN RESPONSE TO NATURAL ENVIRONMENT QUESTIONS

<table>
<thead>
<tr>
<th>Places</th>
<th>Valued natural places (all preferences)</th>
<th>%</th>
<th>Favourite natural (one preference option)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>recreation OUT eg skate</td>
<td>3</td>
<td>0.9</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>recreation IN eg gym</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>sporting ground</td>
<td>18</td>
<td>5.5</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>iconic/symbolic</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>neighbourhood/suburb</td>
<td>6</td>
<td>1.8</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>regular beach hols</td>
<td>3</td>
<td>0.9</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>regular bush hols</td>
<td>5</td>
<td>1.5</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>regular snow hols</td>
<td>5</td>
<td>1.5</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td>weekender beach</td>
<td>9</td>
<td>2.7</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>weekender farm</td>
<td>8</td>
<td>2.4</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>special nature hol</td>
<td>7</td>
<td>2.1</td>
<td>6</td>
<td>4.5</td>
</tr>
<tr>
<td>special tourist hol</td>
<td>2</td>
<td>0.6</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>home garden</td>
<td>8</td>
<td>2.4</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td>g'parents garden</td>
<td>4</td>
<td>1.2</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>home veggie garden</td>
<td>2</td>
<td>0.6</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>backyard</td>
<td>43</td>
<td>13.0</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td>nature/outside</td>
<td>1</td>
<td>0.3</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>beach</td>
<td>70</td>
<td>21.2</td>
<td>40</td>
<td>30.3</td>
</tr>
<tr>
<td>nature iconic/general</td>
<td>15</td>
<td>4.5</td>
<td>4</td>
<td>3.0</td>
</tr>
<tr>
<td>park</td>
<td>86</td>
<td>26.1</td>
<td>14</td>
<td>10.6</td>
</tr>
<tr>
<td>Forest, bush, etc.</td>
<td>0</td>
<td>0.0</td>
<td>29</td>
<td>22.0</td>
</tr>
<tr>
<td>school grounds</td>
<td>33</td>
<td>10.0</td>
<td>6</td>
<td>4.5</td>
</tr>
<tr>
<td>none</td>
<td>2</td>
<td>0.6</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>TOTALS</td>
<td>330</td>
<td>100</td>
<td>132</td>
<td>100</td>
</tr>
</tbody>
</table>

More Green School survey participants than Blue School participants identified nearby nature and wild nature places amongst their preferred places as demonstrated in Figure 8.9. This association was only shown to be significant with the second preference favourite places using a Pearson product-moment correlation test where there was a low correlation between school and 2nd preference favourite place, \( r_s = .28, n = 122, p < .01 \). However this trend aligns with the same cohort difference evident in the Phase 2 research activities with my adolescent
co-researchers: the Green School students preferred more natural places than the Blue School adolescent co-researchers in Chapter Seven.

Figure 8.9: Variations in place type preferencing between the survey participant school cohorts

The Green School students in the survey demonstrated a higher inclination to value natural places consistent with an observed trend for an increased affinity with nature due to familiarity (Abbott-Chapman & Robertson, 2009) and a decreased affinity with nature due to unfamiliarity (Kong et al., 1999). The Green School is located in a ‘green wedge’ border to an outer Melbourne suburb and includes extensive native landscaping and created ‘wildscapes’ of bushlands and wetlands, while the Blue School is a very traditional school located much closer to Melbourne’s centre, situated in a highly built up suburb. Thus the Green School students have extensive nature-contact opportunities at school in comparison to the Blue school students. This decrease in affinity with natural places with an increase in urbanisation is also supported by Owen’s (1994) findings regarding other Melbourne adolescents’ place preferences in the suburb of Sunshine, a highly urbanised and industrialised western suburb,
where the young people, like the Blue School students in this study, evidenced low preferencing for more wild natural environments.

As well as contact with nature at school, the Green School students, with homes located in the less built-up, outer areas of Melbourne, described contact with nature mediated by their family situation. This is represented by one Green School girl who described her relationship with the nature-rich area of Red Hill where she lives (a picturesque rural town on the urban fringe), which was one of her valued places: “This is where I grew up and it is a beautiful environment. [My favourite natural environment is] Red Hill but there are probably better places I haven’t got to see yet. I have loved it since I was a little kid and it is still very beautiful to me.” Similarly one of the Green School boys explained his connection to the river where he lives: “Always take my dog for a walk there. Meet lots of people.” and later when describing his favourite natural environment as this neighbourhood river he explained “It's always a nice place to go down when you’re bored. My parents, Buddy (my dog) and me always go down there and sometimes Buddy and me swim there together.” Family mediation of contact with nature in the Green School students is supported by the greater number of these students who demonstrated an appreciation for nature as the reason for their valuing of their favourite experience in the outdoors - 20% of the Green School students described appreciating nature as the reason for valuing their favourite outdoor experience in comparison to 6% of the Blue School students. A Pearson product-moment correlation coefficient was computed to assess the relationship between the school the survey participants attended and their ways of experiencing the outdoors. There was a low correlation between the participants’ school and their favourite outdoor experience listing, \( r_s = .22, n = 108, p < .05 \). The school the participants attended influenced their experiences of the outdoors.

As a further step in identifying the adolescents’ positioning of nature in their lives, questions in the survey instrument were directed towards revealing their perceptions about nature, which I now turn to considering.

Perceptions about nature

As described in Chapter Seven, my young co-researchers viewed Wals’ research question of “What is nature to you?” (1994, p. 8) as an important inclusion for the survey design. The survey participants’ responses to this question have been categorised according to Loughland et al.’s (2002) conceptualisation scale for understandings of the term environment. The scale begins with the environment (here specifically nature) defined as just a place, with each step in the scale adding a layer of understanding, becoming progressively more sophisticated and
knowledgeable about nature towards the sixth systems thinking approach. A schematic for the conceptualisation scale and the alignment of the survey participants’ responses with this scale are shown in Table 8.14.

**Table 8.14: Hierarchically Categorised Survey Responses to ‘What is Nature’**

<table>
<thead>
<tr>
<th>Level</th>
<th>Nature as …</th>
<th>Count (n=134)</th>
<th>Just girls (n=52)</th>
<th>Just boys (n=78)</th>
<th>Green (n=68)</th>
<th>Blue (n=66)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>… a place</td>
<td>17</td>
<td>4</td>
<td>13</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>+ living things</td>
<td>61</td>
<td>23</td>
<td>35</td>
<td>28</td>
<td>33</td>
</tr>
<tr>
<td>3</td>
<td>+ people</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>+ provides for people</td>
<td>48</td>
<td>21</td>
<td>26</td>
<td>28</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>+ people care for nature</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>+ sustaining people-nature reciprocal relationship</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

*Categorised according to Loughland, Reid and Petocz’s (2002) environmental understanding scale.*

The majority of the adolescents (58%) had an object view of nature: they conceive nature as an object, consistent with the egocentric focus of this life stage (Eccles et al., 1993) and findings of similar studies with young people (Loughland et al., 2003; Pointon, 2013). This object view was strongly focused on nature as other, with none of the participants including themselves as an element of nature within the object view grouping. The relational view of nature was also evident in the participants’ responses, predominantly in Category 4 (see Table 8.14), where the participants’ relationship with nature was focused on nature providing something for humans.

Representative responses of the participants’ variously perceived views of nature according to Loughland et al.’s (2002) hierarchy were “Nature is an outside place.” (Category 1); “greenery, bush, water, rainforest and native animals” (Category 2); [no responses aligned with Category 3]; “Somewhere with plants, animals and water where I can enjoy myself.” (Category 4); “Nature is very fascinating to me in the way that all chains for and the animal food chain and all. I think nature is very underrated to people and many people just don’t care about it
anymore.” (Category 5); and “A natural, healthy environment where people and animals can thrive on the natural resources.” (Category 6).

There was a gender difference evident where more girls (48%) had a relational view of nature than boys (39%) consistent with Loughland et al. (2003) and Pointon’s (2013) findings applying the same conception scale. The girls were also more likely than boys to view their relationship with nature as restorative (38% of those girls that conceptualised nature as relational compared with 8% of the boys). As represented by the comment from one girl that “Nature is valuable to me as I love places with a beautiful view and serenity as it puts me in a better mood, its a good place to think about everything and just relax with friends or by yourself.”

The Green School students were more likely to hold a relational view of nature, despite the gender imbalance (almost double the number of boys) in this school. Of the Green School students 47% held a relational view of nature compared with 36% of the Blue School students. The Green School students’ relational view of nature aligns with the greater affinity with natural places they demonstrated in their valued places choices, as discussed previously in this chapter. This finding is also consistent with Pointon’s (2013) findings that locational context has an impact on adolescents’ conceptions of nature and Wells and Lekies’ (2006) findings that interactions with ‘wild’ compared with ‘domesticated’ nature, such as the Green School’s extensive wetlands (Figure 8.10), have a greater impact on pro-environmental attitudes and behaviours.

The participants’ relational view of nature was however predominantly that of nature enabling or affording them something – freedom, fun and peacefulness as exemplified by one girl’s comment that nature is “A place that is relaxing, calming and a place to run around and be free”, similar to Mannion et al.’s findings (2006) that young people in the UK valued the outdoors for activities, freedom and relaxation.
The survey responses to the question ‘What is nature to you?’ are remarkably similar to those of the Detroit adolescents Wals worked with 20 years ago (1994). Both groups of young people identified dimensions of nature that included nature as plants and animals, untouched wilderness, ecological systems, and offering free, quiet and peaceful experiences. The application of Loughland et al.’s (2002) conceptualisation categories enabled a systematic analysis of the survey responses to distinguish how the adolescents’ perceptions position themselves in relation to nature.

Complementing this was another survey question ‘How is nature a part of your life?’, informed again by a question from Wals’ study [“Can you find nature in your neighbourhood?” (1994, p. 8)], to directly ask the participants how they position nature in their lives. I now turn to considering the responses to this question, in conjunction with the adolescents’ detailing of their favourite outdoor experiences and places, to scrutinise their natural environment preferences.

**Natural places preferences**

As outlined previously in this chapter, the majority of the surveyed adolescents did not position nearby nature and wild nature settings as their most valued places, with the majority of young people placing more value on their home and family-unit bases, collectively termed here their *homeplaces*. The participants from the Green School, which is situated in an
extensively landscaped and ‘wildscaped’ ‘green’ setting, evidenced a higher affinity for natural places amongst their favourite and valued everyday places than the Blue School students.

For all participants the most popular natural or ‘green’ everyday places they described under their preference listings were ‘domesticated’ (Wells & Lekies, 2006) or ‘nearby nature’ (Kaplan & Kaplan, 1995). Of the first preference natural places listed, 77 of 132 places were nearby nature (58%), as were 88 of the 127 second preference green place listings (69%) and 46 of the 67 third place listings (69%). Examples the participants cited for the natural or ‘green’ places they most value in their everyday life were predominantly their local parks and back gardens, and in the case of the Green School students, their school. In comparison, later in the survey when asked to describe their favourite natural environment, 83 of the 131 environments (63%) described were ‘wild’ nature, predominantly the beach, national parks and wilderness areas such as rainforest and bushland areas. The full data set of the natural places the survey respondents listed as important to them was presented previously in this chapter in Table 8.13.

When asked directly to describe how nature is a part of their life, consistent with Wals’ (1994) findings and the previously used nature conceptualisations from Loughland et al. (2002), the survey participants positioned nature in varying degrees of relationship importance to their lives. Informed by both Wals and Loughland et al. grouping systems, a classification for analysing how the young people positioned nature in their lives was developed as shown in Table 8.15, with the survey response counts categorised according to this grouping. As is evident from Table 8.15, most adolescents perceived nature as part of their life but nine (8 males and one female) did not think nature had any role in their life with blunt comments such as “It isn’t” and “Not at all” clearly conveying this message. As in the previous topic of ‘What is nature to you’, nature was again perceived by some as just the surroundings or backdrop to their lives (object view) but most participants identified a relationship with nature (Loughland et al.’s (2002) categories 3 – 6). The relational view responses to ‘How is nature a part of your life?’ were slightly more prevalent from girls than boys (for all relational perceptions, 76% of girls held these perceptions compared with 72% boys). There was little difference between the perceptions of the place of nature in their lives between the students of the two schools, except for a small number of Blue School students (8%) identifying nature as learning when no Green School students held a similar view. This view is exemplified by the comment “It [nature] helps me learn by making me experience things better than learning them in school”. This result seems to be at odds with the previous findings that the Green School students were more attuned to nature. This conundrum will be considered later in this chapter when additional data concerning environmental learning is considered.
Table 8.15: SURVEY PARTICIPANTS’ IDENTIFICATION OF HOW NATURE IS A PART OF THEIR LIVES

<table>
<thead>
<tr>
<th>Nature in life categories</th>
<th>All</th>
<th>Females</th>
<th>Males</th>
<th>Green School</th>
<th>Blue School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
<td>1</td>
<td>8</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>10</td>
<td>12</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>54</td>
<td>27</td>
<td>27</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>2</td>
<td>10</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Totals</td>
<td>114</td>
<td>45</td>
<td>65</td>
<td>55</td>
<td>59</td>
</tr>
</tbody>
</table>

A further insight into understanding the participating adolescents’ positioning of nature in their lives has been gained through the consideration of their favourite outdoor (non-sporting) experiences, as the outdoors is generally conceived as outside places most often incorporating ‘green’ or natural elements (Munoz, 2009).

Eight respondents to this section of the survey did not have a favourite non-sporting outdoor experience, preferring only sporting outdoors experience or no outdoors interactions at all, contributing comments such as “All my outdoor experiences are sporting experiences” and “Going indoors - It was more fun than anything else you can do outdoors.”

Of the 108 respondents that did identify a favourite outdoors experience, most once again preferred active, engaging experiences, having fun with friends, consistent with Owens and McKinnon’s study with adolescents in California (2009). This was a consistent interaction preference message from the young people surveyed that seemed applicable to most places they engage with. The frequency distribution for the types of activities the participants nominated as their favourite outdoors experiences are presented in Table 8.16.

Table 8.16: SURVEY RESPONDENTS’ FAVOURITE OUTDOORS (NON-SPORTING) EXPERIENCES

<table>
<thead>
<tr>
<th>Type of experience/interaction</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>physical, movement, food etc.</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>experiencing, fun</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>socialising</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>connectedness, belonging</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>appreciating natural elements</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>reflective, relax, ‘chill’</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>learning</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>virtual</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Totals</td>
<td>109</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: seven additional respondents identified indoor, sporting or no favourite outdoors experiences.
The active, social activities outdoors the survey participants described were often related to family holiday experiences or going to the park with friends as represented by the responses: “Going for a camping trip. I enjoyed it because it was a nice experience. We were with family friends and we would go for a swim everyday. We would also play beach cricket. We ate by the campfire and it was great!” and “My favourite thing outdoors is when I get to get away from everything and just be with friends and have fun”.

Again the majority of adolescents evidenced a positioning of nature as a backdrop to their activities or as entertainment, even a challenge (“Climbing Uluru”), the most popular types of nature engagement noted by Wals with the Detroit adolescents 20 years ago (1994). Other categories of interaction with nature noted by Wals, that of for learning and for reflection, were also evident through comments such as: “I love looking at the night sky - I love it because I find that I can always calm myself and think clearly when I’m watching the night sky.” – which is another example of the restorative benefit of nature described by the survey participants that was noted earlier in this chapter. And an example of learning in nature was: “Going to New Zealand and looking at the nature and wildlife. It was beautiful. It was pretty and nice to learn something new.” A newer type of interaction that would not have been noted by Wals 20 year ago was the response from two participants about “Playing my iPad outside - Because it is fun to play on my iPad”. Unlike the teenagers Wals worked with in Detroit, the young people in this study did not perceive nature as a reflection of the past, or as a threat or as a threatened place, although one girl did gesture towards this with her comment about her favourite outdoors experience of being a tour guide that she values for “Enjoying what we humans consider beautiful and appreciate the fact that the things i see won’t last forever”. Most of the adolescents however were more self focused, concentrating on what the outdoors affords them.

The differences in affinity with nature noted previously between the ways the two groups of students position nature in their lives is supported by their listings of favourite outdoor experiences. More Green School than Blue School students exhibited an appreciation of nature as their main reason for valuing their experiences as described earlier (11 compared to 3). However this trend becomes complicated with the observation that all nine responses related to the restorative aspects of their favourite outdoors experience were from Blue School students. Indicating the trend of nature connectedness mediated by school and family experiences may not be as straightforward as evidenced from simply the adolescents’ place preferencing.
Interestingly, despite some popularist views that Australia’s nature is dangerous, in their descriptions of outdoors experiences and in all their other place interaction explanations, no student viewed nature as scary or threatening, as has been noted by other scholars (Kellert, 2002; Wals, 1994). The closest one participant came to viewing nature negatively (other than the young people who indicated that nature did not have any meaning or part of their lives) was to describe nature as “A beautiful but an unpredictable way of life.” In fact some survey participants identified that outdoor places (beach and local park) were among their valued places because these places made them “feel safe”. The absence of the perception of nature as threatening may be due to the focus of the survey on valued places. Alternatively the overwhelmingly positive view of nature expressed by the young people surveyed may be influenced by their experience of Melbourne’s safe bay beaches and may also point to the way Melbournians, living in an area with a mild climate, tend to incorporate outdoor activities as part of their lives (walking and exercising in parks, cycling, fishing, beach-going, etc.) such that the young people are familiar and accepting of their nearby nature. The majority perception of nature was summed up by one girl’s view that nature is “Precious and important”.

Section summary

Overall the surveyed young people did not perceive nature and natural places amongst their most valued places but most did include nature as part of their lives, identifying the role of everyday and favourite natural places and activities in the outdoors.

While not perceived as a main preference place, the adolescents surveyed generally positioned nature as included in their lives. The beach, local parks, backyards and, for the Green School students their school, were everyday natural places that they valued. Favourite nature places included the beach again as well as other wild ecosystems such as the Australian bush or rainforests. A small number of the young people however did not perceive nature as having any role in their lives, preferring indoors and technology or sport related experiences.

For most of the young people their preferred outdoors/nature experiences involved social and physical interactions, although the restorative and aesthetic aspects of nature were also appreciated. Nature was predominantly viewed by the surveyed participants as an affordance of the setting with most of the young people focused on themselves not on any intrinsic value of nature itself, supporting Kaplan and Kaplan’s (1995, 2002) findings that during adolescence there is a change in the relationship with nature when compared with children and adults. The adolescents’ conceptualisations of nature were mainly as an object and for those that held a relational view of nature, most related to what nature afforded them.
There were gender differences noted in the positioning of nature in the young people’s lives with more girls than boys having a relational view of nature and more girls valuing the restorative qualities of nature. The Green (‘wildscaped’) School students evidenced a greater affinity with nature more regularly than the Blue (traditional) School students, suggesting that familiarity with nature through school and family experiences may promote nature connectedness.

In the following chapter section I now turn to examine the adolescents’ environmental and nature/outdoors related learning, with a particular focus on learning in their school grounds.

**Environmental learning**

Throughout the adolescents’ descriptions of their valued places and interactions the participants seldom specifically mentioned learning although learning impacts were suggested from their survey responses. This chapter section considers the place- and nature-related learning evident in the survey participants’ responses, initially considering aspects of environmental learning, followed by a focus on learning in the school grounds.

**Environmental learning**

Environmental learning as defined by Rickinson, Lundholm and Hopwood (2009) in their book about environmental learning is “a broad conceptualisation of learning that occurs when learners engage with content that pertains in some way to the environment (not just natural or physical) or environmental issues” (p. 2). Environmental learning that occurs when adolescents interact with nature in their valued places is a focus of this research as articulated in one of the subsidiary research questions for the study. Although acknowledging some interpretations of environmental learning that include learning in the outdoors, Rickinson et al. limited their exploration of environmental learning to classroom settings. In the introduction to their book they state that little is known about environmental learning from the learner’s perspective. As one strategy to gain an insight into adolescents’ environmental learning perspectives the survey included a question that asked how the young people learned about the natural environment. Their responses are presented in Table 8.17.
Table 8.17: HOW THE ADOLESCENTS LEARN ABOUT NATURE

<table>
<thead>
<tr>
<th>How they learn</th>
<th>Count</th>
<th>*Inclusions in combination learning modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>39</td>
<td>incl school 38</td>
</tr>
<tr>
<td>Experience</td>
<td>30</td>
<td>incl experience 29</td>
</tr>
<tr>
<td>Family</td>
<td>6</td>
<td>incl family 18</td>
</tr>
<tr>
<td>Internet</td>
<td>2</td>
<td>incl media 7</td>
</tr>
<tr>
<td>Media - TV</td>
<td>2</td>
<td>incl internet 6</td>
</tr>
<tr>
<td>Friends</td>
<td>1</td>
<td>incl books 3</td>
</tr>
<tr>
<td>Books</td>
<td>2</td>
<td>incl friends 3</td>
</tr>
<tr>
<td>Multiple (combo) ways*</td>
<td>46</td>
<td>**</td>
</tr>
<tr>
<td>TOTAL</td>
<td>128</td>
<td>**</td>
</tr>
</tbody>
</table>

As is noticeable from Table 8.17, school, that is formal learning as Rickinson et al. (2009) concentrated on in their Environmental Learning book, was a major source of learning for the participants but they also rated experiences highly as a means of learning about natural environments. As one young man explained, environmental learning to him is “through experience and hands on activities”. In another response that gestures towards family mediated environmental learning, one of the participants identified environmental learning that connected to the groups’ popularly identified category of favourite places, the family holiday, through the comment “By going on holidays and learning when it is actually there.”

All of which points to a broader conceptualisation of environmental learning than that of Rickinson et al., one such as that articulated by Barratt Hacking, Barratt and Scott:

> Environmental learning is a term that is associated with changes in an individual’s environmental knowledge, attitudes and behaviour, and in addition we also believe it can reflect changes in an individual’s skills and sense of identity as a result of interacting with the environment or environmental issues. (2007a, p. 535)

This conceptualisation of environmental learning encompasses the place-based learning the surveyed adolescents have described in this study. Learning was not articulated as a high priority in the adolescents’ engagement with natural and valued places, as demonstrated in this chapter, but their experiences were nevertheless learning experiences – some learning evidenced understandings related to nature while other learning was more about personal learning (identity and emotional self-regulation through nature restoration) and social learning (social positioning and social skills) through their self-people-place interactions. Social learning encompasses a diversity of learning processes that are socially and/or societally based (Wals, 2007). Thus a more fitting descriptor for the learning the participant adolescents evidenced in this study is social and ecological or socioecological learning, echoing Bronfenbrenner’s social ecology theory that informs this study, and my theoretical model, and also the interdisciplinary
environmental/PE/outdoor/health socioecological educational approach recently proposed by Wattchow et al. (2014). The different ways of knowing their favourite and valued places the adolescents represented in their place commentary in the survey demonstrated both social and ecological learning: the strong connection to the beach many of the young people incorporated into their preferred activities and restorative strategies; the identification of ‘wild’ nature as valuable to many Green School students; the sense of place and sense of belonging the adolescents articulated about their valued places and people; all display different ways of knowing about themselves and the places they interact with, both natural and built - that is, they evidence social and ecological learning. Similarly the adolescent researchers in both India and Melbourne demonstrated socioecological learning in relation to their valued places.

As a setting for socioecological learning that includes accessible nature, the school grounds were of interest to this study. Accordingly I now turn to presenting the socioecological learning the surveyed adolescents reported they engaged with in their school grounds.

*School grounds for learning*

As presented previously in this chapter, gathering places and socialising were the surveyed adolescents’ dominant place and interaction preferences around school. Learning was generally not spontaneously connected with the school grounds and, when questioned about the school grounds and learning, the disconnect between the young people’s perceptions of learning as formal school work and the school grounds was represented by the comment “Although we have beautiful ground at our school, we rarely visit them, and never to learn. The grounds and our learning are very separate things as we keep our learning in the classroom.” Instead the young people predominantly viewed the school grounds as an escape from being “trapped inside”. The participants’ view that learning only happens inside is a commonly held perception (Hart, 2007; Orr, 2011; Titman, 1994).

When asked to indicate if they thought their school grounds were valuable for their learning however, all participants overwhelmingly (88%) viewed their school grounds as beneficial. In describing how they valued their school grounds for learning, the sporting and being active interactions were again important to the participants, as in other place interactions reported in this chapter. Learning and the school grounds as part of the schooling ‘package’ were highly rated as school grounds benefits, as were the social aspects of socialising and belonging, upholding the proposition of the socioecological nature of outdoor learning. The proportional
responses of the learning-related benefits of the school ground are presented in Figure 8.11 and exemplified by the survey responses:

“We need a break from work and we can run around have fun with friends and get fit”

“Because they [the school grounds] influence your happiness levels which is valuable for learning.”

“I learn social skills, one of the most important skills”

“I don't really think it helps me learn, it just allows me to calm and relax and have a break from the stress of school”

“Without school grounds there wouldn’t be school”

Again differences are evident between the Green and Blue School students, with many more Green School students identifying learning and belonging associated with their school grounds and more Blue School students valuing their school grounds for the experience of being outdoors, for relaxation and as part of the educational ‘package’ of their school.

To reveal the adolescents’ perceptions of types of learning in the school grounds, the survey included a series of photo-prompt, likert-scale rating questions, probing the participants’ conceptions of learning in the outdoors at school. The responses to these visual-textual prompt questions are presented in Figure 8.12.
Figure 8.11: Activities participants’ valued school grounds interactions (n = 108).
**THE IMPORTANCE OF ACTIVITIES AS PART OF LIFE AT SCHOOL – PHOTO PROMPT RESPONSES (1-3)*

### Gardening

- Extremely important
- Neither important nor unimportant
- Not at all important

*Response counts as percentage (n=128)*

### Being quiet & thoughtful

- Extremely important
- Neither important nor unimportant
- Not at all important

*Response counts as percentage (n=126)*

### Fitness activities

- Extremely important
- Neither important nor unimportant
- Not at all important

*Response counts as percentage (n=1)*

*Importance rating was on a seven-level continuous likert scale with only end and midpoints labelled.*
THE IMPORTANCE OF ACTIVITIES AS PART OF LIFE AT SCHOOL – PHOTO PROMPT RESPONSES (4-6)

Looking after the environment

Just enjoying nature

Fieldwork

response counts as percentage (n=126)

response counts as percentage (n=127)

response counts as percentage (n=127)
Figure 8.12: Survey responses (items 1-9) indicating importance of outdoor photo-prompt activities at school.
A visual inspection of the graphed responses to the photo prompts activity shown in Figure 8.12 indicates a difference in the participants’ responses to the different outdoor activities, with a marked preference for spending time with friends and fitness activities as part of their life at school. These differences in the participants’ responses to the different types of school grounds learning was also a statistically significant variance demonstrated by a one-way repeated measures ANOVA, that was conducted to compare the scores on the seven-level likert scale of importance ratings of activities in the respondents’ life at school (continuous scale with only end and midpoints labeled, least to most ratings). The means and standard deviations are presented in Table 8.18. There was a significant effect for outdoor activities, $F(2, 113) = 50.896, P<.0005$, indicating significant trends in preferencing of particular outdoor activities at school. The mean responses displayed in Table 8.18 (higher values indicate closer to the ‘extremely important’ rating) show Hanging out with friends consistently rated highly as indicated by the high mean score and limited standard deviation from this mean.

**Table 8.18: MEAN AND STANDARD DEVIATIONS OF LIKERT SCALE RATINGS FOR ACTIVITIES AT SCHOOL**

<table>
<thead>
<tr>
<th>Outdoor Activity</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hanging out with friends</td>
<td>6.6</td>
<td>.80</td>
<td>121</td>
</tr>
<tr>
<td>Fitness activities</td>
<td>5.3</td>
<td>1.7</td>
<td>121</td>
</tr>
<tr>
<td>Looking after the environment</td>
<td>5.0</td>
<td>1.5</td>
<td>121</td>
</tr>
<tr>
<td>Working on real-life projects</td>
<td>5.0</td>
<td>1.5</td>
<td>121</td>
</tr>
<tr>
<td>Just enjoying nature</td>
<td>4.7</td>
<td>1.7</td>
<td>121</td>
</tr>
<tr>
<td>Being quiet and thoughtful</td>
<td>4.5</td>
<td>1.7</td>
<td>121</td>
</tr>
<tr>
<td>Using nature for creative inspiration</td>
<td>4.4</td>
<td>1.8</td>
<td>121</td>
</tr>
<tr>
<td>Fieldwork</td>
<td>4.1</td>
<td>1.7</td>
<td>121</td>
</tr>
<tr>
<td>Gardening</td>
<td>3.5</td>
<td>1.8</td>
<td>121</td>
</tr>
</tbody>
</table>

There were gender differences in the way the adolescents rated the different school ground activities. The girls were more inclined than the boys to rate Being quiet and thoughtful (62% compared to 47%) and Using nature for creative inspiration (65% compared to 43%) as important than the boys, whereas the boys rated Working on real-life projects more highly than the girls (74% compared to 57%, with 27% of boys rating this activity as extremely important compared to only 8% of the girls). The correlations between the gender differences related to Using nature for creative inspiration and Working on real-life projects were shown to be statistically significant through Pearson product–moment computation, although the correlation coefficients generated were low [Using nature for creative inspiration and gender correlation: $r_s = .27, n = 123, p < .01$ and Working on real-life projects and gender correlation: $r_s = .23, n = 123, p < .01$]. Surprisingly, particularly considering the other survey findings
reported in this chapter that the girls preferred the restorative interactions with nature more than boys, there was no statistical correlation evident between the Being quite and thoughtful activity ratings and gender.

There were also differences between the school groups in the way the adolescents rated the different school rating ground activities. Table 8.19 shows the school grounds activities, as described in the survey questions, where the Green School students evidenced a significant difference from the Blue School students. The Green School students rated Gardening, Looking after the environment, Just enjoying nature and Working on real-life projects as more important than the Blue School students. All of these correlations were low but statistically significant as presented in the statistical summary table, Table 8.19. These findings indicate that the Green School students perceived learning activities in the school grounds as important learning while the Blue School students were less convinced. In addition, all the adolescents from both schools preferred school ground activities related to socialising and being active, consistent with the other findings from my survey and previous studies (Mannion et al., 2006) - being physically active and with friends are the adolescents’ priorities, again reinforcing the imperatives of their developmental processes influencing place engagement as noted previously in this chapter.

Table 8.19: SCHOOL – OUTDOOR ACTIVITY PREFERENCES CORRELATION DATA

<table>
<thead>
<tr>
<th>Activity</th>
<th>Rated as important Green School %</th>
<th>Rated as important Blue School %</th>
<th>Correlation data (Spearman rho from Pearson product-moment test, 2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Looking after the environment</td>
<td>73</td>
<td>56</td>
<td>rs = .28, n = 125, p &lt; .01</td>
</tr>
<tr>
<td>Working on real-life projects</td>
<td>75</td>
<td>58</td>
<td>rs = .20, n = 127, p &lt; .05</td>
</tr>
<tr>
<td>Just enjoying nature</td>
<td>66</td>
<td>52</td>
<td>rs = .18, n = 126, p &lt; .05</td>
</tr>
<tr>
<td>Gardening</td>
<td>30</td>
<td>20</td>
<td>rs = .24, n = 127, p &lt; .01</td>
</tr>
</tbody>
</table>

That the Green School students identified outdoor learning activities around school as more important than the Blue School students is at odds with the earlier findings reported in the chapter section on natural place preferences where five students from the Blue School perceived nature’s role in their life was related to learning, whereas no Green School students took this view. The correlations demonstrated here and the earlier findings presented that show the Green School students associate their school grounds with learning more than the Blue School students: Previously in Figure 8.11: Activities participants’ valued school grounds interactions, it was noted that 40% of the Green School students described learning as valuable in their school grounds compared to 24% of the Blue School students. Additionally the earlier findings in Figure 8.9, Variations In Place Type Preferencing Between The Survey Participant
School Cohorts, indicated that the Green School students exhibited a higher preferencing for nature in their favourite and valued everyday places. The combination of these findings strongly suggest that the Green School students were more attuned to nature and learning in nature than the Blue School students. That this was not a universal inclination for all the students is indicated by the five Blue School students who diverged from this trend and perceived learning in nature as important in their lives. This trend for the Green School students to have a greater affinity for nature and learning in nature is a logical expectation from the Green School context – that of a nature-connected setting (100 acres of landscaped and ‘wildscaped’ nature) and learning in nature curriculum opportunities, unlike the Blue School and most secondary schools (Mannion et al., 2006; Rickinson, 2004), suggesting that familiarity and experience in nature promotes nature connectedness.

Some of the Blue School students did recognise the lack in their school grounds when asked what they would change, as represented by comments such as “I would add more green and less concrete” and “I would make it like the natural outdoors, how we were meant to learn, lots of trees, bush, etc.” (26% of the Blue School students wanted more ‘green’ in their school grounds compared to 3% of the Green School students). Predictably all the students tended to want more facilities (sports equipment, water slide, etc.) and regulations changed to suit their personal preferences but many of the Green School students were happy with their school grounds (34%) and how they were used (44%) and didn’t see the need for change. Whereas only 9% of the Blue School students indicated they were happy with their school grounds, that there were no changes needed, but 33% held the view that no changes were needed in the way the school grounds were used, despite many wanting physical greening changes. This suggests a lack of awareness amongst the Blue School students of learning activities that can take place in the school ground and a perception that learning only happens in classrooms.

Despite some recognition of outdoor activities as valuable for learning at school, the chief interest of the majority was for fun and friends as shown in Table 8.20, where these factors were identified by the survey participants as most important benefits of outdoor learning.
There was a statistically significant variance in the participants’ ratings of outdoor learning benefits as shown by a one-way repeated measures ANOVA that was conducted to compare the scores on the seven-level likert scale ratings of outdoor learning descriptors (continuous scale with only end and midpoints labeled, least to most ratings). The means and standard deviations are presented in Table 8.21. There was a significant effect for outdoor learning descriptors, $F(6, 105) = 37.891, P<.0005$. Once again activities with friends are rated overall as the most preferred, with the highest mean score and limited variation from this rating in the responses noticeable in Table 8.21. Responses indicated that the participants enjoy outdoor learning but are less certain as to the value of this for their education.

### Table 8.21: MEAN & STANDARD DEVIATIONS OF LIKERT RATINGS FOR BENEFITS OF OUTDOOR LEARNING

<table>
<thead>
<tr>
<th>Outdoor learning activities are......</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>A time to have fun with friends.</td>
<td>6.0</td>
<td>1.3</td>
<td>111</td>
</tr>
<tr>
<td>Better than being in the classroom.</td>
<td>5.5</td>
<td>1.7</td>
<td>111</td>
</tr>
<tr>
<td>Enjoyable learning.</td>
<td>5.4</td>
<td>1.6</td>
<td>111</td>
</tr>
<tr>
<td>An important part of my learning.</td>
<td>4.8</td>
<td>1.7</td>
<td>111</td>
</tr>
<tr>
<td>Help me understand topics better.</td>
<td>4.5</td>
<td>1.6</td>
<td>111</td>
</tr>
<tr>
<td>Not important for my grades.</td>
<td>3.5</td>
<td>1.9</td>
<td>111</td>
</tr>
<tr>
<td>A bludge.</td>
<td>3.3</td>
<td>1.7</td>
<td>111</td>
</tr>
</tbody>
</table>

*NOTE: higher mean indicates greater agreement on the seven point likert scale.*

There were no significant differences between the genders and between the school groups in their ratings of the benefits of outdoor learning, implying, once again, that the chief imperatives for the participating adolescents were the social and physical elements of the
interaction, consistent with the findings from the survey that have been discussed in this chapter.

Section summary

Despite few spontaneous references to learning associated with their favourite, valued everyday places and nature/natural places, when prompted to consider sources of environmental learning, outdoor learning and their school grounds the adolescents recognised the benefits of outdoor learning. Their primary imperative regarding outdoor and environmental learning was for enjoyable experiences with their peers, which supports the proposition for a socioecological view of outdoor learning. Many participants perceived learning primarily associated with formal classroom, content knowledge but in probing deeper the students revealed an appreciation for different outdoor learning experiences related to personal, social and environmental learning. There were some gender differences in preferences and differences also noted between the two school groups. Apart from the predominant preferences of being with friends and energetic activities, the girls showed a preference for quiet, contemplative activities while boys we more interested in real-life projects in the school grounds. The Green School students were more attuned to learning in their school grounds, consistent with this school’s nature-rich setting.

Chapter conclusion

The findings presented in this chapter build upon those of the previous two chapters outlining the data from the Melbourne-base and India-based adolescent co-researchers. The young Melbourne researchers were in fact instrumental in designing the survey for this study.

The survey findings have been presented in this chapter in relation to the places the adolescents valued, the ways they interacted with their valued places, the way they positioned nature in their lives and their perceptions regarding environmental learning and school grounds learning. Additional findings about the times the adolescents reported they spent engaged in different activities in a typical day were also considered. The survey findings presented in this chapter enable a glimpse into the life of adolescents in Melbourne and into the what, how and why of their valued places. Their preferences of valued places – favourites, everyday and natural – enabled insights into the young people’s conceptions of place and nature.
The young people described an often busy life, with some of them travelling long distances to school and most of them spending long hours with friends. Technologically-mediated communication was an integral part of their lives with the majority spending more time on screen-based activities than the national recommendations, often with their bedroom as the gateway into virtual interactions, again against guidelines. They did however spend substantial time outdoors, on average more than the nationally recommended amount.

Like generations of affluent minority context teenagers before them, the participating adolescents predominantly valued their home and other associated family bases (extended family and second/holiday homes), including their private bedroom space. Strong connectedness and belonging associations with home and family-unit bases (homeplaces) provided psychological comfort and contributed to the adolescents’ developing sense of self. Their personal territory of their bedroom provided desired privacy and a safe haven for restoration. The inclusion of digital spaces as valuable to the adolescents was not a widespread trend but screen-mediated activities were often an integral aspect of their bedroom and home interactions.

Beyond their homes and special family places, places to gather with friends and enjoy activities were preferred. Gathering places included community places that were primarily valued for sporting activities, and school. School was perceived as important more for being with friends than as a focus for learning activities.

A picture emerged of the adolescents’ main activity interests – socialising and engaging in physical activities and enjoyable experiences. These preferences were consistent throughout their place engagements and accord with the developmental tasks of this age group and other research findings; therefore supporting my theoretical model of factors that mediate place engagement. Balancing their busy, energetic, social times, restorative activities were also important to the young people, again consistent with their developmental tasks related to self-discovery. Home was a key restorative place but some of the adolescents valued nature settings for restoration.

The adolescents’ home bases and favourite places were often a keeping place of meaning and memory related to their developing place connectedness/sense of place and sense of self.

Most of the adolescents recognised nature as part of their lives but did not position this as a priority place dimension. The majority of the adolescents exhibited an object view of nature and of those that took a relational view most of these were focused on the affordance of nature. There were gender differences noted regarding the young people’s relationship with
nature, with girls tending to prefer the restorative and contemplative activities in nature more than boys, while boys enjoyed the more physical sports and project orientated activities.

Favourite extended home- and family-unit places (extended family, regular holiday/weekender places) and special family holiday locations were noted for natural environment connections, suggesting families as mediators of childhood-nature connectedness.

Learning in nature or nature as learning was not a spontaneously valued place interaction for most of the adolescents however, when prompted, learning in the outdoors, particularly at school was viewed as important. Environmental, personal and social learning outcomes from outdoor learning were recognised but more so by the Green School students who have more familiarity with outdoor learning in their nature-rich setting. Overall the Green School students demonstrated a greater affinity with nature through their preferencing of ‘nearby’ nature and ‘wildscapes’, and were more attuned to learning in the school grounds, suggesting school directed experiences with nature promote nature connectedness.

Socioecological learning emerged as a more applicable descriptor than environmental learning for outdoor environmental learning with adolescents, recognising the focus on the personal and the social at this life stage.

In summary the findings from the survey of Melbourne adolescents are:

- The adolescents’ lives are busy and electronically connected;
- Home, their bedrooms, places of regular family recreation and places to gather with friends were most important to the adolescents;
- School was predominantly valued for socialising;
- Most of the adolescents’ place interactions were stimulated by their developmental imperatives of being actively engaged in experiences and socialising;
- Places of retreat and restoration were valued, primarily home but sometimes in nature;
- Sense of place and sense of self interactions were connected to their most valued places;
- Most of the adolescents perceived nature as extraneous in their lives;
- Familiarity and family are suggested as mediators of nature connectedness;
• The adolescents’ relationship with nature tended to be self-serving with nature viewed as an affordance for the young people’s activities; and

• Learning in the school grounds was little recognised.

The following, final, chapter synthesises the findings from the three data chapters (Chapter Six – Places that matter to the adolescents in India, Chapter Seven – Places that matter to the adolescents in Melbourne and this chapter about the survey of places that matter to adolescents). From this synthesis conclusions and implications are derived.
CHAPTER NINE
SYNTHESIS AND CONCLUSIONS

Introduction

In the beginning of this thesis I described how I was struggling as a secondary school teacher to engage some of my students in outdoor learning; that my perception of what was a wonderful opportunity to escape from the classroom and immerse ourselves in satisfying work in the natural environment did not match with their obvious disenchantment with the activities. I had all the tricks of the trade: the ponding nets and E. coli testing kits, the garden spaces ready to create edible artistry, but all they wanted to do was make daisy chains and hang out with their friends. I wondered why they were not engaging with the outdoor learning I arranged. And so I began – inquiring into seeking new perspectives on ways to connect adolescents with nature; guided by the research question:

What local places are significant to adolescents and how do they engage in those places?

And the subsidiary questions:

- How do adolescents perceive the natural environment as part of the places and spaces (physical and digital) they inhabit?
- What environmental learning is associated with adolescents’ priority places and spaces?

Chapter One of this thesis introduced and orientated the study, locating it within the (re)emerging field of place studies and less researched areas in environmental education of adolescent groups, student perceptions, consideration of less-privileged majority contexts, contemporary adolescent place connectedness and the secondary schooling context. Chapter Two examined what is already known about place-based environmental education research, locating this within the broader context of environmental education and connecting it to learning in nature and adolescent schooling. Chapter Three explored three interconnected theoretical bases for the study, identifying that this research crosses boundaries between adolescence as a life stage, place psychology theory and social ecological theory, arriving at a theoretical framing for the study that draws upon these three theoretical areas to identify
factors that mediate adolescents’ meaningful interactions with the places they value. Chapter Four presented the methodological design of the study as mixed methods founded on a ‘child-framed’ research approach that involved co-opting adolescents as research partners in data gathering, data interrogation and construction of a survey tool that was later administered to a broader audience. Chapter Four also described the qualitative and quantitative analysis approaches employed. Chapter Five briefly presented the three school ‘cases’ as the context of the study that extended the research from a western modernity context (Melbourne) to a less-privileged rural context (Eastern Himalayan India). Chapters Six, Seven and Eight presented the research findings for the three research domains: working with the adolescent co-researchers in India, working with the adolescent co-researchers in Melbourne and the anonymous online survey of adolescents in Melbourne.

In this final chapter, I present a synthesis of the research findings and discuss implications and conclusions from the findings; thus contributing to the scholarly dialogue of place-based learning by illuminating aspects of the little researched areas of adolescents’ valuing of places and nature; adolescents’ perspectives about environmental learning; and environmental education in less-privileged, non-western modernity contexts by spotlighting the places that matter to teenagers in Melbourne, Australia, and the remote Eastern Himalayan region of northeast India.

I commence this chapter with a synthesis of findings aligned with the research questions, namely: places that mattered to the adolescents and their engagement with these places; followed by findings related to connectedness to nature; then the situation with environmental learning in relation to the adolescents’ valued places. From this synthesis I consider the implications that emerge from the findings related to nature connectedness supporting adolescents’ wellbeing and suggestions for a pedagogy suited to natural places. To conclude this chapter, and the thesis, I identify the limitations of this study and possibilities for future directions.

**Synthesis of findings**

Through the generous contributions of the young co-researchers from the village school in India and the two schools in Melbourne, and with the anonymous responses to the survey from Melbourne participants, a glimpse into the adolescent world has emerged. It illuminates the places and place interactions that matter to the young people which informs the structure and organisation of this synthesis: I commence with consideration of the different narratives of
adolescence from the two research contexts. A synthesis of the places that matter to the young people and why they matter follows. I then move to focus on the adolescents’ nature connectedness, including factors that mediated this, and their environmental learning.

*Childhood as contrasts*

The affluent teenager’s life in Melbourne was found to be a busy one, with time spent moving between venues and activities while still being constantly connected to friends through technology. This resonates with Elkin’s (2010) conceptualisation of the modern ‘hurried child’. Despite this, and contrary to popular concerns that technology is keeping young people inside (Louv, 2007), they did spend a reasonable amount of time outdoors. The places the adolescents in Melbourne engaged with formed a geographical patchwork, at times widely spaced, between which they were transported between: home, school, sporting venues and other places of family or recreational activity. Being with friends and being active were prime motivators for the adolescents’, primarily egocentric, place engagements.

Some of the Melbourne adolescents revealed a need for places of relaxation, safety and comfort in response to feeling stress; perhaps in reaction to their busy lives or due to never really being alone - their bedroom was often reported as a gateway into online social interactions and no longer a solitary, restorative place. Nature was the choice of many for restoration, consistent with scholars such as Hasbach and Kahn (2013) who signal increasing interest in the wellbeing benefits of contact with nature.

The lives of the adolescents in India were vastly different to their Melbourne counterparts. They roamed freely around the village and surrounds, the places they engaged with around home, the village and beyond, forming one continuous geographical place. Their lives evidenced a seamless integration of home, family, farms, village and nature, with no phones or computers available and much of their day spent outdoors. Yet this was not an idyllic country life. The tough realities of survival translated into a focus on nature as a provider with the adolescents’ prime motivator for place engagement as community wellbeing.

Now I turn to the places that mattered to the adolescents in the study and how they engaged with those places; places that have been the main focus of this research.

*Places that mattered and why they mattered*

The places of home, family and extended family activities were the places most highly valued by all the young people in this study – both those from India and from Melbourne, Australia.
Their *homeplace*, the physically and emotionally supportive place(s) where the young people felt they were nurtured and safe, and where they felt they belonged, were predominantly their most valued places. This is consistent with Marcia’s (1983) contention that adolescents require a dependable home base that enables developmental work towards their ‘adult self’. This also articulates with my theoretical framework of interrelated factors that mediate place engagement. All three of the interconnected theoretical frames that I advance as place engagement mediators are activated regarding the adolescents’ *homeplaces* – their adolescent processes in combination with place relationships and their socioecological systems – co-constructing a highly significant place of adolescent development, wellbeing and learning. It is therefore unsurprising that home also dominated preferences in the past adolescent place studies of Sommer’s (1990) study with adolescents in Estonia; Korpela et al.’s research with teenagers in Finland (2002); and Abbott-Chapman and Robertson’s study of adolescent place in the Australian state of Tasmania (2009).

*Homeplace* for the Melbourne adolescents included a number of components. The personal territory of their bedroom was particularly important to them. For many of the Melbourne teenagers *homeplace* was a conceived space that incorporated geographical locations distant to the family’s primary home; usually their other parent’s home, grandparents’ home or ‘weekender’ homes (beach, bush, farm or snowfields) where the family regularly retreated. These extensions of the core *homeplace*, although disparate in terms of geography, were still included by the Melbourne adolescents as part of their home base that they felt strongly connected to. Such an abundance of options was noticeably absent from the India young people’s situation.

In India the young people extended their perceptions of supportive places to their food and income generating family farms and evidenced a strong sense of belonging to the whole community. For the young people in India *homeplaces* - home, family and village/community related places - were valued by the majority of the adolescents as supportive of their core physiological needs and as places of belonging and identity, which parallels places valued by young people in less privileged urban communities around the world (Chawla, 2002b). They conveyed an holistic sense of connection to their whole village and natural surroundings, unlike the Melbourne adolescents’ compartmentalised patchwork of locations that made up their *homeplace*. This highlights a significant difference between the two groups of adolescents regarding the position of nature in their lives. In India the young people’s lives were intimately connected with nature but the adolescents in Melbourne lived compartmentalised lives often separated from nature. This portrays the Melbourne teenagers’ lifestyle not necessarily their attitude to nature. Most of these young people appreciated the
beauty and relaxing effects of nature, resonating with past adolescent place studies that have found that affluent teenagers value natural places: Sommer’s (1990) study of the Estonian adolescents and Abbott-Chapman and Robertson’s (2009) research with teenagers from Tasmania both found that as well as home, nature was a preferred place. While Korpel et al. (2001) identified that for university students (older teenagers and young adults) in Finland their top preference was natural places, as was in Owens’ (1988) research into the valued outdoor places of Californian teenagers. So both home and nature have been past adolescent preferences, findings that my adolescent co-researchers in India echoed.

The village, farming activities, farm animals, community-significant places and the natural surrounds were the focus of the young people in India. In comparison, as well as their homes, the young people in Melbourne were very focused on places they gathered with their friends – predominantly school and sporting venues – as places that facilitated their priority activities of socialising and being engaged in active experiences. The young people in India did identify places around the village and surrounds where they gathered with friends but this was not a priority for them, reflecting a fundamental difference between the two research settings. The young people in India were focused on the collective wellbeing of their family and community while the young people in Melbourne were very focused on themselves. This contrast points to an essential difference in the two cultural contexts that impacted on the young people’s place valuing. As highlighted by Panelli and Tipa (2007), alternative contexts to dominant affluent narratives preference collectivist and interdependent values, in comparison, striving for individualism and independence is characteristic of western modernity. Brown et al. (2002) explains this as effecting a positioning of adolescents in India as dutiful and responsible community members. This cultural difference was reflected in the Melbourne teenagers’ questing for friends and places separate from their families. In contrast the India adolescents’ focus was on places and people that benefitted their family and community. Gustafson (2001) poses the interplay of self-place-others factors as determinants of place-making. The Melbourne adolescents appeared to privilege ‘self’ in their place interactions whereas ‘self is less visible for the India adolescents. This reinforces the significance of socioecological system influences on place engagement as highlighted in the theoretical framing for this study.

Despite the marked differences between the two groups of participants in this study the accord regarding their dominant preference for homeplaces, and correlations with other adolescent place studies across generations and contexts, indicates an underlying imperative to adolescent place engagement. Owens and McKinnon (2009) advance that adolescent place relationships are strongly influenced by the developmental ‘tasks’ of their age. A position I have adopted in my theoretical model of three interconnected systems - of adolescent
processes interacting with place relationships and socioecological system elements to influence place engagement. In the model I pose adolescent developmental processes as centred around stimulating experiences, socialising, restoration and autonomy. That the autonomy processes are noticeably modified by the India adolescents’ socioecological system upholds the validity of my theoretical model.

Similarly the participating adolescents evidenced place preferencing for community and natural places (India) and places for social interactions (Melbourne) as shaped by their life stage, place making and social ecology factors. Therefore, despite recent lifestyle changes associated with modernity and the differences in context between the two countries, the places and place interactions most valued by the adolescents in this study are analogous to those of other adolescent significant places across time and space, all with the constant of adolescent developmental imperatives.

There was often a plurality in the young people’s valued places related to a layering of interactions with place. This was particularly evident in their favourite places that were valued for what the place afforded them as well as a place of meaning (both personal and community) and even a keeping place of memories. The participants’ place engagements commonly gave rise to four outcome dimensions as shown in Figure 9.1.

![Figure 9.1: Common dimensions of outcome from the adolescents’ place engagements.](image)

The adolescents’ interactions with place, influenced by their development, place making and socioecological processes (as I theorise), effect an engagement with place for fulfillment of a range of needs. The young people evidenced an engagement with place that resulted in four
interconnected dimensions of outcome: basic physiological and social (belonging) requirements for living, the formulation of self that is important for this age, and personal flourishing related to vitality and meaning – shown in Figure 9.1 as four dimensions of outcome layered over place engagement. These place engagement outcomes were not neatly partitioned as depicted for display in Figure 9.1, in reality they were merged and layered. The more valued or more (personally) meaningful the place, the more layers there were to the adolescents’ engagement with that place. For example their *homeplaces* they engaged with on all levels. In comparison a sporting ground for most was just for fun and fitness; related to their wellbeing. Although some also engaged with their favourite sporting venue on different levels as ‘Basketball Boy’ demonstrated with his repeated focus on the courts as his valued place, illustrating a sense of belonging, wellbeing and self identity with comments such as “I am obsessed with basketball and I like to improve my game (and want) allocated courts that only Jack, Tom, Alex, Ben and I can use.” Basketball Boy’s place engagement was multifaceted for diverse outcomes. A reciprocal relationship of need fulfillment and place making that established the basketball courts as a place of significance for him.

For some young Melbournians belonging interactions with peers were not anchored to particular places but to their clique, suggesting that they invested a sense of belonging in social spaces. The possibility of social spaces as more meaningful than places to adolescents extends into consideration of digital space engagement. ‘Technoscapes’ as inhabited s/places are the reality of most affluent lifestyles with young people forming the vanguard of change. The Melbourne adolescents in this study described lives where they interacted, almost seamlessly, with physical places and digital spaces, supporting Johnson and Puplumpu’s (Johnson, 2010) theorising that a techno-subsystem now exists as part of one’s social ecology. The dominance of social places preferred by the young people in Melbourne, their inclusion of digital spaces in their repertoire of social interactions, and, for some, their social spaces as movable feasts not anchored in a particular place, signal digital spaces as alternatives for adolescent social interaction. Pawson et al. (2007) advance digital social spaces as valuable supportive extensions to a young person’s social world. For most of the Melbourne adolescents participating in this research digital social networking was evident but did not supersede ‘hanging out’ with friends. ‘Place’ played an important role in the interplay of the self-place-others factors that determined their valued places. Digital, social and storied places were identified as important to a number of the adolescents in this study but physical places were their most valued, so place do still matter.

Nature and places with natural elements were significant for the young people in India and, although not a priority place for most, recognised as valued places by the young people in
Melbourne. The positioning of nature within the adolescents’ lives was of particular interest in this research into the places that mattered. Two narratives of nature connectedness were evident in the research that I now discuss.

A tale of two natures

There were two very different stories of nature connectedness in this investigation into the places that matter to adolescents. The first was nature as life. In India the young people’s lives were immersed in nature as most of their life was played out in nature - the managed nature of their family farms and the wild natural surroundings. They evidence detailed knowledge of their small village and all the surrounds, including all the natural elements. The young people in India recognised their dependence on nature as providing for their survival but they also expressed wonder and joy in nature for its bounty and beauty. They described a spiritual dimension to their connection with nature as part of their cultural practices and beliefs. Such intimate knowledge of the natural system that their lives are entwined with is a demonstration of what Orr (2011) terms ecoliteracy. In fact the young people identified with natural elements of their world, indicating what Clayton (2003) and Thomashow (1995) have referred to as an ecological identity. Their nature connectedness was evident, not just because they did not have the distractions of electronic communications and shopping malls as do their counterparts in Melbourne; their connections to nature were embedded in their culture and their rural way of life. This India adolescents’ nature connectedness is highly significant because they did not evidence a disinterest in nature as has been advanced as a characteristic of adolescence by Kaplan and Kaplan (1995, 2002). The India adolescents demonstrated that a disconnect from nature during adolescence is not an inherent characteristic of this lifestage.

The second tale of nature was nature as something pleasant. The Melbourne adolescents’ lives were insulated from nature in their urban setting and with their predominant preferencing for the built environment of home. On the whole the adolescents in Melbourne did not perceive natural places amongst their most favoured but they did include nature as a valued aspect of their lives, often for what nature afforded them in terms of settings for activities and relaxation. This is similar to Owens and McKinnon (2009) and Wals’ (1994) research where adolescents primarily valued nature for restoration and entertainment, suggesting that affluent minority teenagers do relegate nature to a peripheral position in their lives consistent with Kaplan and Kaplan’s (1995, 2002) theorising.

Orr colourfully describes people who have no recognition of their connectedness with natural systems as “ecological yahoos” (2011, p. 252). Although not ecologically illiterate yahoos in the
Orr describes people with no knowledge of natural environment elements and systems, the Melbourne teenagers generally evidenced little environmental knowing. Many of them did however display an emotional involvement with the peacefulness, beauty and spaciousness of nature and culturally iconic natural settings. Orr (2011) contends that urban dwellers, as removed from the essential naturalness of the landscape, are unable to develop a deep nature connectedness as appears to be the situation with the Melbourne adolescents, but their positive emotional involvement with nature signals potential for development of deeper nature consciousness. Kollmuss and Agyeman theorise an emotional involvement with the environment as a factor in developing a “pro-environmental consciousness” (2002, p. 256).

The Melbourne adolescents’ positive involvement with nature, although predominantly just at the superficial level of enjoying pleasant experiences with nature, is important in suggesting a leverage point for promoting deeper nature connectedness.

Causation attribution is beyond the scope of this study but what is apparent is that the lifestyle differences between the two contexts, remote rural India and urban Melbourne, have influenced the adolescents’ ecoliteracy skills and nature connectedness. This is important in signalling familiarity with nature implicit in mediating nature connectedness. This is also highly significant when taking a place-based perspective of young people’s engagement with natural places as my theoretical model indicates place engagement influences adolescents’ development, wellbeing and learning.

The research participants evidenced a range of nature connectedness and environmental knowing from the highly ecoliterate India adolescents who displayed an intimate, multilayered knowing of nature, to the Green School students who showed some appreciation and attachment to nature, and then the Blue School students who primarily perceived nature as a pleasant setting for their activities. The differences between the research cohorts suggest family situations and choices strongly influenced familiarity with nature that in turn enabled different experiences of nature, thus promoting nature connectedness.

It needs to be remembered at this point that the India adolescents’ experiences with nature were not the romanticised idyll often portrayed in the evolving childhood-nature discourse. Advocates for increased nurturing of childhood-nature relationships such as Louv evoke images of carefree, nature-savouring experiences in nature, “about awakening to creation” (2005 p. 333). This image is very different to the India teenagers’ experiences of the harsh realities of the remote, rural poor. Yes their lives were closely connected with nature but they were not necessarily living the ‘good life’ of a bucolic childhood in the natural countryside. This is not to deny the call for re(connecting) young people with nature, instead it serves as a
reminder that childhood does not follow a universal pattern and conclusions drawn from an affluent minority perspective are not necessarily generally applicable. Being mindful of the danger related to making generalisations, these findings do indicate some common factors that mediate nature connectedness that I now turn to outlining.

Factors mediating connections with nature

Family as the determinant of nature connectedness

The rural village life compelled the India adolescents’ nature connectedness. Living closely with nature and necessity ensured the adolescents from the India families developed ecoliteracy and a deep knowing of their ‘county’. The Green School families intentionally promoted their children’s nature connectedness through their choice of school and through their lifestyle that tended to preference nature-based extended family homes. The young people’s sustained interactions with the natural surrounds in India, with the ‘wildscaped’ school ground in the Green School in Melbourne and with family beach, bush, snow and farm weekenders, positively impacted on the adolescents’ nature connectedness. Family circumstances and choices that increase access to natural environments increased the young people’s familiarity with nature, consistent with Abbott-Chapman and Robertson’s findings that natural “space learning” (2009, p. 431) through familiarity increased young people’s affinity with nature. Thus family circumstances mediated the adolescents’ nature connectedness that was evident in the high ecoliteracy of the young people in India and in the stronger nature preferences of the Green School students in Melbourne. This finding gestures towards Payne’s (2010) conceptualisation of the family as a site for environmental education and is consistent with social ecology theory’s identification of the family as a core influence on a person. My Melbourne co-researchers identified that their family nature experiences offered more opportunity for nature connectedness than school-mediated experiences by virtue of the less restricted, flexible structure of family-based interactions with natural environments. This is an important indication that alternative ways of experiencing nature beyond formal school learning in nature need to be identified to better promote nature connectedness through school environmental education. The research participants described different ways of engaging with natural environments that deepened their connection to nature.

Multifaceted ways of knowing natural places

The different ways of knowing nature that the participating adolescents described were: the deep ecological knowledge of the natural environment of the young people in India; the
storied knowledge of natural places as keeping places of personal and cultural histories; the playful, lively embodied interactions with the rich stimulation of natural places; the social interactions mediated by natural places; and the meditative and restorative connectedness with nature. In keeping with their adolescent developmental imperatives of developing their physical, intellectual, social and emotional selves, the young people evidenced ways of interacting with and in nature that incorporated cognitive, affective, social, spiritual and embodied engagements. Multidimensional ways of knowing place have been recognised through others’ research and practice. Knowledge of the natural environment and adventurous engagement with nature have long been the dominant intentions of environmental education and outdoor education. Storied histories have been shown to be powerful connectors to nature (see for example Cameron, 2008; Somerville, 2007; Wattchow, 2007; Wattchow and Brown, 2011) and social interactions related to the natural environment are an emerging focus (see for example Wals, 2007). Yunkaporta and Kirby (2001) and Wheaton (2000) have advanced that multifaceted indigenous ways of knowing place can inform pedagogies for place connectedness. That the participants in this study identified multifaceted ways of knowing nature in their preferred place engagements suggests pedagogical approaches of this style as befitting for connecting adolescents with nature. Such a pedagogy is proposed in a forthcoming chapter section.

Learning about the environment in conjunction with their valued outdoor place interactions was rarely mentioned or recognised by the participating adolescents. As a focus for this study this is an issue for consideration that I now turn to.

**Environmental learning**

Learning as an activity was seldom specifically mentioned by the participants in connection with any of their valued places. Environmental learning is variously defined but the increasing use of the term ‘socioecological’ in relation to environmental education (see for example Kyburz-Graber, 2013 and Wattchow et al., 2014) gives a clear indication that environmental learning is not just about environmental knowledge; that environmental learning incorporates elements of social and personal learning. In all the research activities the adolescents in this study engaged with (photo data collection and interrogation, research team group discussions and survey responses), formal environmental knowledge learning interactions were rarely mentioned. They did however evidence learning outcomes related to environmental knowing, personal and social learning and the impacts of informal and situational learning associated with the natural environment. So despite not recognised it as such, they did engage in environmental learning in outdoor places.
The adolescents in India exhibited a deep ecological knowledge that was connected to their homes, village and way of life, not to school. Their way of learning about the natural environment was integrated with their daily activities, an indigenous way of knowing their land that was socially positioned and mediated. Schoolwork in contrast was through book and rote learning and not connected with their valued places. This indicates a lived, emplaced way of environmental learning that resulted in their high ecoliteracy and nature connectedness. This is important in identifying a successful strategy to elicit environmental learning.

The young people in Melbourne sometimes referred to learning about the environment as part of their schooling and occasionally in relation to family activities but the predominant learning interactions associated with their valued places were personal and social learning. Again this is consistent with adolescents’ developmental imperatives associated with self-discovery and establishing social competencies. The Melbourne adolescents’ learning in the outdoors was grounded in social processes with the ecological learning occurring serendipitously. This signifies that social learning was valued by the young people as both process and product and was a key motivator for their place engagements; identifying social learning as a potential focus for affluent minority students’ environmental learning in natural places.

The young people’s image of learning was that of classroom-based formal schooling, which contributed to an indoor-outdoor learning disconnect noticeable in their place discourse. There was limited recognition by the adolescents of the informal and situational learning that occurred from their interactions with and in their valued places, even if the places were the outdoor areas of their institutionalised site of learning, their school. Aligned with this was the common lack of recognition of the value of their everyday or horizontal learning (Bernstein, 1999) or of playful interactions as learning experiences that Malone (2004) and Preston (2014) argue are integral to both younger and older people’s everyday place interactions. Titman posed in 1994 that privileging of classroom (primarily cognitive) learning as the dominant definition of learning by students is a reflection of prevailing teacher attitudes that the classroom is where the important learning happens. This is a significant, persistent barrier to outdoor learning that suggests alternatives to formal environmental education in nature are needed.

Brody (2005) poses that learning in nature is more than just environmental knowledge learning; that learning in natural settings includes social, affective, embodied, personal and temporal elements as well as the cognitive aspects of learning. Incorporating the different dimensions of learning into a more holistic approach is recognised as a more productive approach to learning (Hart, 2007; Rickinson, 2004). All of which links back to my earlier
premise that the young people of the study displayed different ways of knowing their valued places, including nature. That is, they displayed a more socioecological range of learning not just environmental knowledge learning associated with the natural environment. This is an important consideration for appropriate socially-focused pedagogy to scaffold nature connectedness in adolescents.

**Key findings**

The India adolescents’ lives were rich in nature and community but limited in material resources, while the Melbourne adolescents were materially rich but nature poor. The young people’s relationship with nature impacted on their wellbeing. For the India adolescents this was at a deep, fundamental level. For the Melbourne adolescents nature was not directly linked to their immediate survival and their relationship with nature was more superficial but still benefited their wellbeing through restoration. The India adolescents were highly ecoliterate and connected to nature, indicating disinterest in nature at adolescence is not an inherent characteristic of the lifestage. Adolescent processes were illuminated as powerful mediators of place engagement but these were modified by social ecology system elements and place relationships, illustrating the validity of my theoretical model of multiple mediators of place engagement for development, learning and wellbeing.

The adolescents engaged with place in multifaceted ways that resulted in outcomes related to fulfilling basic physical and social needs, as well as outcomes of self-discovery and wellbeing. Greater layering of place interactions was evident for those places the adolescents identified as their most valued. Their family home base was their most valued place that was layered with affordance, comfort, meaning and identity. Family mediated (intrinsic situational and intentional) experiences with nature facilitated nature connectedness. Different experiential and social ways of knowing nature were strongly evident as mediators of socioecological learning. Digital space engagement was evident amongst the Melbourne teenagers but actual places to ‘hang out’ dominated their preferences.

This concludes the synthesis of research findings about the places that mattered to the adolescents from remote northeast India and urban Melbourne, how they engage with their valued places, how nature was positioned in their lives and their place-based learning. I now turn to considering the implications of these findings.
Implications

This research study adds weight to the previous identification of the places that matter to adolescents in the literature and extends this into a modern, digitally-infused context as well as into the little understood world of a less-privileged, minority, rural context. The research contributes adolescents’ perspectives on their important places, place interactions and relationship with nature in their lives. The findings also illuminate critical leverage points of emotional involvement and social interaction for connecting adolescents with nature. Many of the young participants identified natural places as important for social interactions and positive emotional experiences, suggesting the potential of nature-based social and emotional learning activities that are explored in this chapter section.

The convergence identified in the findings between the adolescents’ valued places and their developmental imperatives suggests connections with adolescent (and potentially planetary) wellbeing that are also considered. Similarly the identification of different ways of knowing nature as mediators of socioecological learning suggest a pedagogical strategy for adolescent learning in nature, leveraging the identified critical effect points, that are also explored in this section.

Nature connectedness as supportive of adolescent wellbeing

This research was partially driven by my adolescent co-researchers through application of the empowering ‘child-framed’ methodology in this study. This prompted a wide gaze across the territory of adolescents’ place interactions that draws on scholarship in adolescent development and neuroscience, environmental psychology and social ecology theory of human development to highlight convergences between environmental education, place-based education, environmental psychology, ecohealth, health promotion and positive psychology. The research findings from this investigation into the places that matter to adolescents identified that the importance of natural place interactions for the young people extends beyond environmental learning (the original motivation for this research) into healthy development and wellbeing ramifications.

The adolescent participants identified natural settings as places to be physically active, as well as places for nourishing their self-discovery and advancement of their social skills, and for strengthening solace – all important activities for adolescents’ healthy development and wellbeing that were nurtured by contact with nature. For the adolescents in India their natural surroundings also provided for their physiological needs. As well as the obvious survival needs,
the benefits of contact with nature the participants have articulated are consistent with the well-documented benefits of interactions with ‘green’ environments on physical health and the increasingly evidenced mental, social and emotional health benefits of nature-interaction that have been detailed in Chapter Two, Literature Review. Such benefits include attention restoration (Basu et al., 2014; Kaplan & Kaplan, 1995), connectedness and belonging (Basu et al., 2014; Korpela & Hartig, 1996; Panelli & Tipa, 2007); and emotional wellbeing (see the body of work by Korpela and colleagues: 1996, 2001, 2002, 2014). Collectively the identified mental, social and emotional benefits of interaction with nature signal a nature-wellbeing focus that is yet to be fully understood (Faber Taylor & Kuo, 2006; Munoz, 2009). This study contributes towards this understanding.

Adolescent health and wellbeing is emerging as a global priority with adolescent mental health issues becoming of increasing concern (Government of India, 2014; WHO, 2014). The wellbeing of young people is a predictor of adult success (Catalano et al., 2004; Lloyd, 2005) and in schools student wellbeing is linked to both academic success and healthy development (de Winter et al., 1999; Waters et al., 2009). The elevated interest in adolescent wellbeing extends into school education with an emerging interest in wellbeing strategies to enable young people to flourish (Seligman, 2011). This increased interest in adolescent health and wellbeing is important because it signals a potential workable space in secondary schools for nature interaction activities that promote wellbeing. The importance of social and emotional learning (SEL) for young people’s development, health and wellbeing (Blum, 2005) makes an increasingly persuasive argument for inclusion of SEL activities alongside discipline-based curricula in schools, particularly in the light of increasing concerns about adolescents mental health. SEL, resilience development and positive education approaches are becoming increasingly attractive to schools (Seligman, 2011). Co-curricular activities such as pastoral care mentoring, special events and residential camps are traditional strategies in secondary schools aimed at supporting young people’s personal, social and emotional learning. That such activities happen outside the formal curriculum suggests a potential space within secondary schooling for engaging in nature-based, student-wellbeing-focused environmental education. I content that such a space, away from the competitive ‘crowded curriculum’, has potential for developing a stronger environmental education presence in secondary schools by connecting natural environmental education with SEL and wellbeing promotion. This means a change in focus away from the ecological and sustainability style environmental education that currently predominates, to advocate for environmental education viewed through a personal development lens – connecting young people with nature to improve their wellbeing. That the young people in this research study demonstrated that social and emotional learning was
more evident than environmental learning in natural places, and Malone’s (2008) observation that SEL is an overlooked area in formal environmental education, adds support to my contention that the health promotion/personal development programs within schools provide a likely space for nature-based activities to extend into.

As has been established, increasing young people’s connection with nature enhances their wellbeing. The link between nature connectedness and wellbeing can also be extended to link to enhancing positive environmental attitudes. That is, adolescent nature connectedness, wellbeing and environmental care are all interconnected as I enumerate: it will be recalled that contact with nature has been demonstrated to have a restorative effect and thereby improves adolescents’ wellbeing. Brown and Kasser (2005) found wellbeing and pro-environmental behaviour were linked in adolescents. In parallel a childhood connection to nature is posed as a prerequisite for pro-environmental behaviour (Chawla, 2007; Gruenewald, 2003a; Leopold, 1966; Orr, 2011; Sobel, 2004a). Another linkage is evident through the positive emotional connections with nature associated with restorative and nature appreciation interactions detailed by the participants in this research. This is important because Kollmuss and Agyeman (2002) link emotional involvement with pro-environmental consciousness as a precursor to pro-environmental behaviour. This elated convergence of nature connectedness, wellbeing and the development of pro-environmental behaviours suggests fostering nature connectedness as a strategy for targeting dual benefits of adolescent wellbeing and enhancement of pro-environmental dispositions.

This convergence of ideas around young people’s contact with nature illuminates a potential positioning of environmental education using a personal development lens for nature-connectedness activities with students as an attractive alternative for secondary school-based socioecological learning. Thus reframing environmental education in the secondary sector as personal development/wellbeing/health promotion activities, shifting to a co-curricular space instead of within the formal curriculum where environmental education has struggled for decades to maintain a presence in the increasingly crowded and standardised disciplines curriculum. Using the existing resources of nearby nature to provide a setting “that brings out the best in people” (Basu et al., 2014, p. 186) is a powerful argument for a nature-connectedness, wellbeing pedagogy.

Based on the findings from this study identifying the wellbeing benefits of interactions with nature and the links between wellbeing, nature connectedness and pro-environmental behaviour, I advance that the nearby nature of school grounds is ideally positioned as a support tool for fostering young people’s wellbeing in schools, with complementary benefits of
increasing their sense of connectedness to nature and social caring coherence (Hämäläinen & Michaelson, 2014; Orr, 2011); potentially promoting both human and planetary wellbeing.

With young people’s wellbeing identified through this research as a potential future focus for learning in nature activities, and my appraisal of the health promotion/ personal development dimensions within secondary schools as workable space to reorientate environmental education towards, I now turn now to suggesting a framework for implementing this, again informed by the research findings.

**Mindful socioecological practices of place – mediating nature connectedness**

I commenced this research journey predominantly in response to seeking strategies to engage adolescents (and secondary schools) in outdoor environmental learning. I now understand that my teacher-perspective focus on curriculum outcomes (albeit in a lovely setting) did not intersect with my students’ learning motivations as I envisaged. Instead, their focus was on their developmental imperatives of engaging in personal and social learning important for their wellbeing and development; consequently I did not engage my students in environmental learning as planned. Now, informed by my findings identifying factors that mediate young people’s connection to nature, I propose an alternative strategy for engaging adolescents in natural places - *mindful socioecological practices of place* – a flexible framework of connected activity dimensions for place-based learning in the nearby nature of a school ground or neighbourhood setting that supports both wellbeing and nature-connectedness outcomes. The *mindful socioecological practices of place* framework is visualised in Figure 9.2.

This *mindful socioecological practices of place* framework is informed by the place interactions valued by the research participants in this study and based on my theoretical model of adolescent place engagement. The framework activates adolescent natural place engagement through the place engagement mediating factors identified in this study of adolescent development processes (stimulating experiences, socialising, restoration and autonomy); place relationships (affordance, dependence, meaning and identity); and social ecology system elements (peers, community, environment).
As is depicted in Figure 9.2, the mindful socioecological practices of place framework incorporates four interconnected activity elements – Play, Storytelling, Investigate and Contemplate – informed by my adolescent participants’ place interaction preferencing, place engagement mediating factors identified in my theoretical model, and respectfully borrowing from the lived socioecological learning about place that successfully developed the India students’ ecoliteracy. These four activities provide a contextually flexible structure for iterative nature interaction sessions in the nearby nature of the school that allow adolescents time and space to activate a connection to nature and enhance their wellbeing.

Deconstructing the place-based interaction findings from this study and in the scholarly literature illuminated adolescent preferred and successful nature engagement experiences – elements of social, physical, fun, purposeful, authentic and emotional interactions with nature that the young people in this study and in other place and youth environmental education research preferred. This deconstructed thinking enforced a shift away from my dominant scientific/ecological focus and enabled a fresh view of what learning in nature could be. Taking a reverse engineering approach, I sought a pedagogical approach that would scaffold young people’s experiences in nature to elicit nature connectedness interactions, constructing an
amalgam of interconnected place-based activities that evokes new possibilities for nature-based environmental education. Reframing nature environmental education with adolescents through my *mindful socioecological practices of place* model, away from a discipline knowledge focus, allowed me to explore other possibilities – different ways of knowing and health/wellbeing perspectives.

My pedagogical framework caters to adolescents’ developmental needs for sensed, felt and active experiences, for social interactions, for some autonomy and for restoration and reflection. The young people in this study emphatically indicated that embodied and social activities engage their interest. The Play and Investigate phases of place interaction in the framework address these developmental needs for stimulating exploratory and social activities.

Although ‘play’ is not a word the adolescents prefer to use in describing their activities (the young co-researchers in working on the design of the survey instrument rejected ‘playing around’ in favour of the descriptor ‘hanging out’), play is a word that is part of their language as can be seen in the early analysis word association presented in Appendix L that extracted ‘play’ descriptors the young people used. They ‘play’ soccer, ‘play’ computer games, ‘play’ with friends. Play is a key theme in early years education and research but is rarely included as a valid learning strategy (other than in sport) for youth or adults (Malone, 2004; Preston, 2014), yet the UN defined rights of children and young people recognises their right to play (Munoz (2009). Despite the scarcity of play in secondary schooling, it has been recognised as an important learning process: self-organising playful interactions are the essence of how we (and all animals) learn (Kolb & Kolb, 2010); play has been observed to reciprocally enrich culture and identity (Chawla, 2002); and play is embodied and embodied activity is advanced as fundamental in environmental education (Rathunde, 2009). Additionally, positive emotional responses, such as those associated with playing (e.g. having fun, being happy) are thought to enhance learning (Loughland et al., 2003; Rickinson et al., 2004).

The Investigate phase of the pedagogical framework then extends playful interactions to be more purposeful; potentially linking with formal ecological knowledge outcomes and providing space for students’ passion projects or more traditional project learning and place-based inquiry that are familiar to teachers and environmental educators.

Storied activities, as another dimension of my proposed *mindful socioecological practices of place* pedagogy model, maintain the focus on the personal, suitable for this egocentric life stage and build meaning for place-making. Storytelling was strongly represented in the place analyses of the adolescent co-researchers in this study. In parallel place/space scholars
Cameron et al. (2004), Massey (2005), Somerville (2007) and Wattchow (2007) advance storytelling as a significant place making activity; while Kolb and Kolb have identified creating space for “conversational learning” (2005, p. 207) important for promoting effective learning.

Kolb and Kolb include reflection as well as meaning making within their definition of conversational learning, blending into the final element of my nature pedagogy model, Contemplation. A reflective/evaluative phase is common in learning activities but I envisage more than this in the final phase of my nature pedagogy model. Hence the term Contemplation that can incorporate the reflective, restorative, creative retreat time important for adolescent development (Spear, 2000), a “conversation with nature” that has elements of artistry, sensuousness and affinity (Orr, 2011, p. 257).

The addition of this final element of Contemplation enables my framework to build into a connected, holistic strategy. Thus situating this proposed constellation of adolescent-appealing social and place interactions in nearby nature as one that promotes social and emotional learning, mindfulness and restorative benefits, cross-fertilised with environmental learning and nature connectedness. It is a place- and adolescent-responsive strategy for (re)inhabiting local natural places through iterative, multimodal lived experiences, that address both students and teachers’/school needs, particularly those in affluent minority settings. The model replicates the layering of place interactions - the different ways of knowing place - that distinguished the research participants’ most valued places, suggesting use of the mindful socioecological practices of place framework will build meaning and connection to the natural place base.

Places that nurture young people, sometimes termed ‘holding environments’ (Chawla, 2002b; Malone, 2004), are those that fulfil their needs and support their development. Taking a mindful socioecological practices of place approach to developing young people’s relationship with a patch of nearby nature may establish this place as a ‘holding environment’ for them. Such a place does not have to be pristine as Bannerjee and Driskell (in Chawla, 2002) found when working with young people in a ‘slum’ town in India – despite the material deprivations of their lives, the young people from this slum were “confident, connected and happy” (p. 135) as a result of living in their socially and culturally supportive environment, reinforcing the benefits to young people of developing a sustaining connection to their local places.

Being happy and other positive emotions were associations made with time in nature by many of the adolescents in this study. Seligman (2011) advances positive emotions as a significant element of personal wellbeing. The popularity of Seligman’s ‘authentic happiness’ and well-being theory and the field of positive psychology seems to have, in part, arisen in response to the discontent and malaise at times exhibited by those that are materially-rich, such that there
is an increasing interest in affluent societies in promoting happiness, meaning and personal wellbeing that is now extending to schools with the advent of positive education programs (Seligman, 2011). The growing concerns about adolescent mental health detailed earlier have focused health promotion efforts in schools and the community towards young people’s wellbeing. Making use of the proposed mindful socioecological practices of place approach has the potential to be a strategy for schools to nurture adolescents’ wellbeing, as contact with nature, as demonstrated in this study and in others in the literature (refer again to the body of work by Korpela and colleagues: 1996, 2001, 2002, 2014), can be restorative and elicit positive emotions. Thus supporting the positioning of this nature pedagogy model as a health promotion/ personal development strategy for secondary schools, a pedagogy that extends beyond cognitive learning strategies to the heart and hands learning of social, emotional, embodied, lived, storied and everyday learning, all of which have been shown to have student wellbeing benefits.

In addition to emerging from this research inquiry as a strategy to foster adolescent nature connectedness and wellbeing, the mindful socioecological practices of place framework aligns with others’ models of place-based learning, affirming the value of the framework. The 8 Aboriginal Ways of Learning model (Yunkaporta & Kirby, 2001), the notion of slow pedagogy and taking a place-responsive approach strongly influenced the development of my mindful socioecological practices of place framework.

By engaging through different dimensions of knowing place my pedagogical framework respectfully aligns with indigenous ways of knowing (Wheaton, 2000; Yunkaporta & Kirby, 2001). Somerville (2007) poses that new pedagogies of place are needed - alternatives to formal educational approaches. Richard Kahn resolutely maintains that environmental education is dominated by narrow scientific perspectives and should instead be reconstructed with “indigenous peoples’ traditional ecological knowledge” (2010, p. 105). Indigenous scholars themselves describe different ways of knowing place and nature beyond that of scientific inquiry (Wheaton, 2000; Yunkaporta & Kirby, 2001). In the Australian state of NSW Indigenous educators have developed a straightforward pedagogical framework for teachers to include Australian Aboriginal perspectives using indigenous learning processes. This framework, the 8 Aboriginal Ways of Learning, is represented by a dynamic interconnected set of processes that includes narratives, visual and symbolic learning, land-connected and experiential learning (Yunkaporta & Kirby, 2001). This 8 Ways framework of different but interconnected learning processes resonates with the place interactions the adolescents in this research preferred and appeals as a flexible, holistic approach. My mindful socioecological practices of place framework draws on the 8 Aboriginal ways framework by connecting
different learning processes suitable for adolescent learning and environmental education in natural places.

Place-based education scholars advocate for place-responsive pedagogies that are locally and contextually grounded (Cameron, 2008; Cameron et al., 2004; Payne & Wattchow, 2008; Smith, 2002; Wattchow et al., 2014; Wattchow & Brown, 2011). Taking a learning processes approach, such as in my nature environmental education model, enables contextual flexibility that can incorporate and honour teacher/school/curriculum imperatives as well as respond to the nature and culture of the place. Such an approach also builds on the strengths of adolescents – their sociability, energy, curiosity and introspection – in an adolescent-responsive as well as place-responsive manner.

The inclusion of Storytelling, Play and Contemplation in my *mindful socioecological practices of place* framework aligns with taking different approaches to the more traditional investigation/inquiry approach in nature environmental education. This would take time. The ‘slow’ movement, as a reaction to the hurried modern lifestyle, has been advanced by Payne and Wattchow (2008) as synergistic with developing a sense of place in outdoor learning. A ‘slow’ pedagogy allows time for playful, creative, storied activities, building a sense of connection to the natural place where the *mindful socioecological practices of place* are enacted; enabling multifaceted interactions with nature that Brody (2005) and Orr (2011) promote as necessary for learning in and connecting with nature. Time however is a commodity in short supply in secondary schools and as a teacher I have experienced the tensions between meeting curriculum imperatives and the desire to allow time to slow down, enable play and nurturing of students’ interests and development. Identification of an alternative space – the co-curricular space of personal development/wellbeing promotion - separate from the formal curriculum space that allows time to enact slow, place-responsive and multifaceted ways of knowing nature appeals to me as a strategy to lessen this tension.

Packaged together as malleable, place-responsive and iterative activities based around nearby nature, this *mindful socioecological practices of place* approach therefore has the potential to support young people’s wellbeing, development and learning by creating a workable space between formal and informal learning, between discipline-based and personal development curricula, between student and teacher imperatives, and between adolescents and nature. As Orr suggests, enabling young people to develop a “dialogue with place” (2011, p. 256), intentionally building their nature connectedness.

Nearby nature areas such as within the school grounds or at the neighbourhood park, creek, wetlands or beach are envisaged as the site for enacting my *mindful socioecological practices*
of place pedagogy; somewhere with natural elements that is easily accessible for iterative interactions that enable a slow pedagogy approach. Orr (2011) promotes the notion of unhurried time in nature but time that has some structure. Similarly Mannion et al. (2006) contend that just being in nature is not enough to result in environmental learning, that the experiences need form and adult mediators. The mindful socioecological practices of place model, although flexible and responsive to context and needs, provides structure in identifying different learning processes to undertake in scaffolding young people’s development of a relationship with their nearby nature. The model has an openness that can be readily interpreted by teachers to suit their interests and enable timely responses to characteristics in the natural and social environment such as weather, new growth, rehabilitation projects and student choice. Thereby building a shared pedagogy with both adolescents and nature to contribute to individual, community and environmental wellbeing.

The health and wellbeing benefits of social and emotional learning, enhancing positive emotions and restorative nature interactions are not new ideas but framing nature environmental education as conceptualised through my mindful socioecological practices of place model has leverage points of personal, social and wellbeing benefits, that have the potential to gain traction within the busy school timetable alongside formal curriculum in the increasingly important health and wellbeing space. This provides an attractive solution to caring teachers through a very easy, fluid and needs responsive set of interconnected ways of interacting with a nearby patch of nature.

Thus, informed by the research findings, my theoretical model of adolescent place engagement mediators and scholarly models of learning in nature, I advance the mindful socioecological practices of place framework as a pedagogy of place entry point towards nurturing affluent minority adolescents’ connection with nature and enhancing their wellbeing through easily teacher-managed (but still somewhat structured), enjoyable, developmentally-appropriate activities at a time in the life span when adolescents in affluent minority contexts can disconnect from nature (Hart, 1979; Kaplan & Kaplan, 1995, 2002; Korpela et al., 2002; Nabhan & Trimble, 1994).

Having explored implications of adolescents’ nature connectedness in relation to enhancing wellbeing and the application of a practices of place framework prompted from the research findings, I now move on to considering the limitations of the study.
Limitations of the study

This research is limited to only two geographically-based narratives of young people’s place experiences in three school community cases from the multiplicity of adolescent place narratives around the world, so causation and generalisations are not realistic outcomes from the research findings. This research has however demonstrated consensus with other adolescent place studies and has enhanced the existing understanding of adolescent place interactions with the inclusion of digital space preferencing and the inclusion of the previously lacking less-privileged rural majority context. This study confirms and extends on other youth place studies, revealing trends that signal future areas for research and, as Wals (1994) posed, increasing awareness of adolescent place relation factors that may apply in other situations.

Using a methodology that gave the adolescent participants in this study ‘voice’ enabled an adolescent insider’s perspective. It must be recognised, however, that this was a subjective and possibly censored version of the adolescents’ significant places that they regard as acceptable to share. This was inevitably influenced by the situational dynamics inherent in the created relationship between my young co-researchers and myself and in the anonymity of online survey participation. In general the young people expressed their appreciation for the opportunity to be consulted and were generous in sharing some of their private teen perspectives. The similarity with the findings from this study and other youth place studies indicates an authenticity to their contributions.

The language barrier that existed between the young people in India and myself (that was more extensive than expected) added to the possible censoring of the adolescents’ discussion contributions to the research activities. This was exacerbated by their teacher and another adult who interpreted, which was further compounded by the socio-ecological positioning of young people who dutifully follow their elders’ directives in this cultural context. This was in part balanced by use of the initial photo data collection method that enabled the adolescents in India to control the valued place preferencing they selected to share. Additionally it would have been preferable to include subsequent visits to the village to work with the young people and to survey other young people in the school as occurred with the schools in Melbourne, but this was not logistically possible and is a direction for further research as will be outlined in the following chapter section.

The Melbourne adolescent co-researchers considered the use of Facebook as a communication and data collection tool as a useful approach but it did not generate the level of engagement I expected. Instead most of the young people found it easier to directly transfer photos from
their phones and discuss them on the spot in the research team ‘Think Tank’ meetings. The use of Facebook did however give a glimpse into the young people’s engagement with their valued places between the Think Tank sessions.

The non-prescriptive nature of a ‘child-framed’ methodology, where the young people influence the direction of the research activities, effected a straying from the original environment education focus of this research, although this meant the research connected to other disciplines that added richness and new perspectives to contribute to the understanding of young people’s learning in nature.

Despite the limitations outlined, this research contributes to the small yet significant body of literature related to the understanding of the places that matter to adolescents and the role of nature in adolescents’ place interactions in a climate of increasing interest in the positioning of nature in childhood. This research has also illuminated a number of areas for future research and practice that I now discuss.

**Future directions**

A number of complementary research inquiries and new areas of research are suggested from this study. The immediately obvious future research possibility is to extend the research to other groups of students and contexts:

It would be worthwhile to continue with the original plan of researching with other groups of adolescents in India. It will be recalled that a second village school was to be involved with the research but unfortunately secondary school students were not available at the time of the scheduled research visit. A follow up research visit to the Eastern Himalayan region of India to repeat the research with adolescent co-researchers is indicated. The survey instrument, which was developed after the India research visit in this study, could now be translated and administered with other adolescent audiences in India. Even use of just the photo prompt section of the survey would be a valuable exercise. The research activities in India would be a fruitful area to replicate and expand, extending the findings for this rarely researched situation.

Similarly the exploration of places that matter to young people through the different phases of this research – Phase 1 (‘Photovoice’), Phase 2 (Co-researcher ‘Think Tanks’) and Phase 3 (survey) – could be extend to other groups of students in Australia, such as rural and indigenous adolescents, and alternative urban representatives to those in the case study
schools in this study. One such urban group that merits consideration is in a particular suburban area of Melbourne that has been the site of two previous Growing Up In Cities research studies about the local places young people use. Children and adolescents in Braybrook, a less affluent suburb in Melbourne’s west, were consulted in the 1970s (Lynch, 1977) and then again in the 1990s (Malone & Hasluck in Chawla, 2002b). Now that it is 40 years since the original study, revisiting this area to again to work with young people in an exploration of the neighbourhood places that matter to them would enable longitudinal comparisons in the lives of adolescents living in this area.

The mindful socioecological practices of place pedagogical model indicated from the research findings of this study needs to be trialled for practicality, and the effects of increasing exposure to nature on adolescents’ ecoliteracy, ecological identity and pro-environmental consciousness researched. I envisage this as a collaborative endeavour with students and teachers to trial, evaluate and refine the model, possibly as an action research project with pre and post measures of the adolescents’ ecoliteracy, ecological identity and pro-environmental consciousness.

Munoz’s (2009) observations of an emerging interest in the salutogenic benefits of contact with nature, including contact with nature as beneficial in relieving teenage mental and emotional health issues, as an area for future research parallels my identification through this study of a connection between adolescent health and wellbeing and time in nature that merits further investigation. A wellbeing focus suggests a link to positive psychology. As indicated in the earlier section of this chapter discussing implications from the findings, I have identified a synergy between young people’s nature connectedness and wellbeing that signals an opportunity to apply the research approaches used in positive psychology that have been used to measure outcomes such as resilience, meaning, positive emotions and mindfulness. This is a field that has a robust research base, particularly in the area of empirical evidence of subjective wellbeing (see for example the body of work from Ryan and Deci’s Self Determination Theory and Seligman’s Wellbeing Theory). The terminology used by researchers in both fields is often analogous, with similar language being used to describe the impacts of nature-based environmental education and those of wellbeing-enhancing strategies. For example Chawla et al. (2014) recently identified positive emotions that result from young people’s interactions with nature in their school grounds that gestures towards this connection with wellbeing theory, as Seligman (2011) poses positive emotion as one of five key aspects of wellbeing. Descriptions of experiencing nature through “the cultivation of the sense of wonder” (Orr, 2005, p. 99) and “awe” (Rathunde, 2009, p. 70) resonate with the positive psychology technique of “savouring” (Seligman, 2011, p. 52). As well as the strongly
represented descriptions of the restorative power of nature (for example the work of Kaplan and colleagues) in environmental education and corresponding positive psychology literature describing the wellbeing benefits of nature restoration (Basu et al., 2014), other similarities in descriptive terms can be found in the literature of both fields. Terms such as connectedness, meaningful, mindfulness vitality, flourish(ing) and values are used in both fields for describing experiences and benefits in environmental education and positive psychology encounters. Then there are the overarching benefits in terms of health(y) and wellbeing impacts. Such commonalities suggest the possibility for cross-fertilization of methodologies between the fields. Of particular benefit for application in nature-based environmental education are the many positive psychology research instruments that have been developed to measure wellbeing in this strongly empirical field. Understandings of wellbeing principles from the rapidly expanding field of positive psychology, also hint at a connection between personal and planetary wellbeing that warrant further investigation (see for example Hämäläinen & Michaelson, 2014; Ryan & Deci, 2008). This convergence of ideas from environmental education, positive psychology and health promotion prompted me to consider nature-based teaching and learning from new perspectives which ultimately resulted in my proposed pedagogical model - *mindful socioecological practices of place*. The intersections also suggest a new terrain of research and practice that merits investigation.

Finally, taking a totally different research trajectory, the influence of adolescents’ digital social networking and the use of their bedroom as a gateway into this mode of social interaction that became evident in the findings, is an area of research that I believe warrants further exploration; particularly the associated impacts on young people’s developing sense of self, which has traditionally been tied to specific locales (Hall et al., 1999).

**Concluding comments**

This study adds a strand to weave into the increasingly rich tapestry of place studies, filling some of the gaps in the research related to adolescent groups, student perceptions, less-privileged majority contexts, adolescent place preferencing in a new landscape of digital connectedness and school grounds learning. Understandings of adolescents’ positioning of nature in their lives and their perspectives of outdoor environmental learning are limited in the literature. This documentation of the perspectives of young people from urban Melbourne, Australia, and remote rural northeast India on places that matter to them, including natural
places, is presented as a complement to the body of existing work on adolescents’ valued places and nature connectedness, and the emerging childhood-nature discourse.

Indications are that adolescents’ place choices and engagements are primarily governed by developmental imperatives in combination with their social ecology system elements and meaningful place relationships. Their most valued places were those layered with interactions and were similar to previous generations despite the incorporation of digital spaces into the affluent minority teenagers’ mix of place interactions. Supportive home bases, places for strategic retreat, and for the Melbourne adolescents, places to gather with friends, were the most valued places, reflecting the adolescents’ developmental, wellbeing and contextual imperatives. In India the young people’s valued places were the continuous, interconnected places of their homes, family farms, village and the surrounding landscape; their place prioritising strongly influenced by the dominant collectivist and interdependent values of their context. In marked contrast the Melbourne adolescents’ valued places were a patchwork of well-resourced places and spaces, predominantly home and other family-unit bases, sporting and school locations that they travelled between, pursuing their contextual goals of individuality and independence.

The young people’s lives in India were intimately connected with nature, both physically and culturally. Their rural lifestyle was limited in material resources but nature-abundant. Living in partnership with nature meant the India teenagers were highly ecoliterate and appreciative of nature, illustrating that a disconnect with the natural surrounds is not an inherent characteristic of adolescence. In contrast the urban Melbourne teenagers’ connection with nature was limited in a life lived separated from nature. They tended to have a self-serving relationship with nature, appreciating the beauty and restorative, wellbeing benefits of nature but they were predominantly focused on the affordance of natural environments.

Familiarity with natural environments mediated through family choices (intrinsic situational and intentional) tended to promote a stronger connection with nature. Environmental learning was rarely a priority for the Melbourne teenagers’ interactions with nature, preferencing socialising and entertainment instead. In contrast the India adolescents developed high-level ecoliteracy skills through lived experience, a socially mediated indigenous way of environmental learning. Thus socioecological, adolescent- and place-responsive learning is suggested as more appropriate for adolescent learning in nature, promoting both wellbeing and nature connectedness benefits. Consequently a mindful socioecological approach to nearby nature (local and school grounds) learning is advanced as a more developmentally appropriate strategy for adolescents than formal environmental learning in nature, promoting
personal, social and environmental learning, wellbeing and pro-environmental consciousness benefits.

Adolescent valued places, including nature, were revealed in this research as significant for young people’s development, wellbeing and socioecological learning. Places do matter to adolescents when their multidimensional interests are engaged as my co-researchers Jewel, Pearl, Ruby and Jade explain:

Jewel: Being able to be independent.
Pearl: Being busy, I love being busy.
Ruby: Being balanced. Like sometimes being busy but...
Researcher: Have some quiet time too.
Jade: Friends and family, school work and no school.
Researcher: And does it matter where it is?
Jewel: I think it does.
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APPENDICES

Appendix A: Melbourne Information and Consent Form

PARENTAL/PARTICIPANT CONSENT FORM

Research Project Title
Place Matters: Exploring adolescents’ preferred environmental places and learning

Principal Investigators
A/Prof Amy Cutter-Mackenzie and Ms Helen Widdop Quinton

NOTE: This consent form will remain with the Southern Cross University researchers for their records

I agree to participate in the following areas of the research project (please tick your choice as applicable):

☐ The ‘Student Researchers’ part of the project that involves taking photos of places (not people) I have interacted with in my daily activities and sharing my photos and commentary about these local places with others in the research group via a private, invitation-only Facebook group. (Time commitment involved is approximately 15-30 minutes a week over a 20 week period).

☐ The two face-to-face meetings or ‘Think Tanks’ to discuss research findings and assist in preparing the general student survey for the project with Southern Cross University researchers. It is expected that each workshop will take approximately an hour and a half during school time. These workshops will be audio and video recorded.

☐ The online survey, which will take approximately 15 minutes to complete.

I understand that participation is voluntary, that I can choose to withdraw from the study at any stage of the project without being disadvantaged in any way. I understand that any material that the researchers use from the project for use in reports or published findings will not, under any circumstances, identify the participants. No images will be utilised unless a photo release form has been completed. I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

Student Consent

I agree to take part in the Southern Cross University research project specified above and:

☐ I am aged 13 years or older and my date of birth is: __/__/____

☐ I am registered on Facebook and am eligible to be invited to join the Place Matters private Facebook Group.

Student’s Name: ____________________________________________

School: ____________________________________________________

Signature: ____________________________ Date: ________________

Parent/Guardian Consent

I freely consent for my child to take part in the Southern Cross University research project specified above. I have (please tick off each item to indicate your agreement):

☐ I have read the attached Participant Information Sheet outlining the nature and purpose of the research study and I understand what my child is being asked to do.

☐ I have been informed about the possible risks of my child taking part in this study.

☐ I have returned the Photo and Video Release Form with signatures completed (optional).

☐ I have retained the Participant Information Sheet for my records.

Parent/Guardian’s Name: _____________________________________

Signature: ____________________________ Date: ________________

Dr Amy Cutter-Mackenzie and Helen Widdop Quinton

Southern Cross University

Lismore, NSW, 2480

Place Matters Research Project, June 12

Participant Information Sheet and Consent Form
PHOTO and VIDEO RELEASE FORM

I grant permission to Southern Cross University researchers, Amy Cutter-Mackenzie and Helen Widdop Quinton to use the digital photographs that I have taken and/or am photographed/videoed in for the Research Project, *Place Matters: Exploring adolescents’ preferred environmental places and learning*. I understand that these images may be reproduced in publications generated from this research (report or conference presentation for example). No participant will be identified.

If you agree to us using your images in this way, please sign below where indicated.

Student Consent

☐ I agree to Southern Cross University researchers, Amy Cutter-Mackenzie and Helen Widdop Quinton using and reproducing my pics photos and images of me in the manner explained above.

☐ I do not agree to Southern Cross University researchers, Amy Cutter-Mackenzie and Helen Widdop Quinton using and reproducing my pics photos and images of me in the manner explained above.

Signature: __________________________
Name: __________________________
School: __________________________
Date: __________________________

Parental/Guardian Consent

☐ I agree to Southern Cross University researchers, Amy Cutter-Mackenzie and Helen Widdop Quinton using and reproducing photos and images of my child in the manner explained above.

☐ I do not agree to Southern Cross University researchers, Amy Cutter-Mackenzie and Helen Widdop Quinton using and reproducing photos and images of my child in the manner explained above.

Signature: __________________________
Name: __________________________
School: __________________________
Date: __________________________
WITHDRAWAL OF PARTICIPATION

Research Project Title: Place Matters: Exploring adolescents' preferred environmental places and learning

Principal Investigators: A/Prof Amy Cutter-Mackenzie and Ms Helen Widdop Quinton

I hereby wish to WITHDRAW my intent for my child

to participate further in the above research project.

Child's Name (printed)

Parent/Guardian Name (printed)

Signature of Parent/Guardian

Date

If a verbal withdrawal:

In the event the participant decided to withdraw verbally, please give a description of the circumstances. Coordinating Investigator to provide further information here:

Participant's Name (printed)

Signature

Date

Coordinating Investigator to sign the withdrawal of consent form on behalf of a participant if verbal withdrawal has been given:
Appendix B: Melbourne Phase 3 survey information

Participant Information Sheet and Consent Form
(for students and parents)

Research Project Title: Place Matters: Exploring adolescents’ preferred environmental places and learning

Principal Investigators: A/Prof Amy Cutter-Mackenzie and Ms Helen Widdop Quinton

Invitation to Year 7 – 10 students to complete an online survey for this university research project

Years 7-10 students are being invited to participate in the Place Matters research project by completing an anonymous online survey aimed at gaining students’ views and ideas about local places that are important to adolescents and how they learn in these places. This research project has been considered important by a university review panel as there is a lack of information about adolescents’ views on places important to them and their perceptions of valuable learning activities in places around their school and home.

The survey is the final part of this project that has been undertaken over the last few months by the research team consisting of participating student assistant researchers from the school working with the university researchers. The survey will take approximately 15 minutes. To complete the survey go to the following web address and follow the prompts:

http://www.surveymonkey.com/

There are no costs or payments associated with participating in this survey.

Participation in any research project is voluntary. No student will be disadvantaged by not participating in the project. It is up to you and your child to decide whether or not they will take part in this anonymous survey. A student may participate in all or only some of the survey questions. If a student becomes upset or distressed as a result of their participation in the survey, contact should be made with the university researchers as soon as possible, who are able to arrange for assistance from the school’s welfare counselor or other appropriate support.

The material collected in the study will be used to develop a PhD thesis about the project. Extracts from the thesis may be used to produce short case studies, journal articles and presentations about this project for the Australian and international education community. The school principal will be presented with a copy of the project thesis when completed. In any publication and/or presentation, information will be provided in such a way that your child cannot be identified. The results for this particular project may also be used in other research projects and/or publications.

For further information contact:
If you would like any further information on this study you may contact Helen Widdop Quinton or Amy Cutter-Mackenzie at: helen.widdop-quinton@scu.edu.au or amy.cutterm@scu.edu.au

All research in Australia involving humans is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). This research has been approved by the Southern Cross University Human Research Ethics Committee (HREC). The approval number is ECN-12- The school principal has also reviewed and approved the project.

Complaints about the ethical conduct of this research should be addressed in writing to the following:
Ethics Complaints Officer
HREC
Southern Cross University
PO Box 137
Lismore, NSW, 2480
Email: ethics.lismore@scu.edu.au

All complaints are investigated fully and according to due process under the National Statement on Ethical Conduct in Human Research and this University. Any complaint you make will be treated in confidence and you will be informed of the outcome.
Appendix C: Melbourne Think Tank Guiding Questions

Place Matters research project - ‘Think Tank’ discussion topics

- What trends / similarities have you noticed in the Place Matters Facebook group photos posts?
- What trends / similarities have you noticed in the Place Matters Facebook group comments posts?
- Are there any comments or photos that made you think, ‘I wonder’ - which ones? Explain.
- Are there any comments or photos that made you question something - which ones? Explain.
- Are there any comments or photos that made you think, ‘wow!’ - which ones? Explain.
- Are there any formal, informal or hidden learnings* can you identify associated with any of the places/spaces mentioned in the posts?
- Can you identify and 1) Benefits to students 2) Benefits to teachers 3) Benefits to the school and 4) Benefits to the environment associated with any of the places/spaces and learning activities photographed and/or commented on in the online postings?
- Can you identify any success factors to do with learning in natural places around school from the group’s data?
- Can you identify any barriers or blockers to do with learning in natural places around school from the group’s data?
- Can you identify places that have been successful for formal curriculum learning? What learning was involved? What activities were involved exactly? Why do you rate these examples as successful?
- Can you identify places that have been successful for informal (social development) learning? What learning was involved? What activities were involved exactly? Why do you rate these examples as successful?
- Can you identify places that have influenced hidden message learning? What learning was involved? What activities were involved exactly?
- Were there any ICT (information and communication technology) uses or links with any of the places identified in your photos and/or comments?
- Can you identify any examples where teaching and learning changed as a result of being at a special place in the school?
- Any comments about this research project

* As defined by Learning Through Landscapes organisation in the UK (www.ltl.org.uk): formal = discipline-based curriculum through timetabled lessons; informal = learning through interactions in breaks and extracurricular activities (social learning); hidden = messages imparted from the physical surroundings
Participant Information Sheet and Consent Form
(for students and parents)

Research Project Title: Place Matters: Exploring adolescents’ preferred environmental places and learning

Principal Investigators: A/Prof Amy Cutter-Mackenzie and Ms Helen Widdop Quinton

Invitation to participate in this Australian university research project

Young people aged 13 to 16 are being invited to participate in the Place Matters research project. They are invited to be assistant researchers on this project aimed at gaining young peoples’ views, ideas and photos about local places that are important to adolescents and how they learn in these places.

The research program will involve:
1. Using a digital camera provided on loan by the university researcher to collect photos of everyday important places over a two day period. This will take approximately an hour spread over the two days.
2. At the end of the two days, all participating young people will meet with the university researcher to return the cameras and view and discuss everyone’s pictures, exploring the places important to the participants. A translator from Help Tourism will assist with the meeting to discuss the photos. This meeting will be video recorded and will take approximately one hour.

There are no costs associated with participating in this project, nor will you or your child be paid. Each participating youth researcher will receive a Participation Certificate.

Participants are requested not to share personal information or photos of others as part of their role of co-researchers in this project to protect people’s privacy.

Participation in any research project is voluntary. No child will be disadvantaged by not participating in the project. It is up to you and your child to decide whether or not they will take part in this project. If you do decide that your child can take part, then you and your child need to complete the Consent Form attached. Students and parents can decide to stop participation in the project at any stage and will not be disadvantaged by withdrawal from the project.

If a participant does not wish to answer a question or respond to a comment, they may skip this and continue with other aspects of the meeting, or they may stop their participation in the project immediately. If your child becomes upset or distressed as a result of their participation in the study, you should contact the university researchers as soon as possible, who are able to arrange for assistance from Help Tourism and the village school or other appropriate support.

If you wish to withdraw your child from this study please advise the study team. If you decide to withdraw your child from the project, the researchers would like to keep the information your child has contributed (photos, commentary and group discussion responses). If you do not want them to do this, you must tell them before you withdraw from the research project. However it may not be possible to remove some material once recorded (group meeting recordings, etc).

The material collected in the study will be used to develop a PhD thesis about the project. Extracts from the thesis may be used to produce short case studies, journal articles and presentations about this project for the Australian and international education community. The village school principal will be presented with a copy of summary reports when completed. In any publication and/or presentation, information will be provided in such a way that your child cannot be identified. No images of persons will appear in any reports.
or presentations (pictures or video footage) who have not given prior consent. The results for this particular project may also be used in other research projects and/or publications. Any information obtained in connection with this study project that can identify your child will remain confidential. Only the research team will have access to this data which will be securely stored for at least 7 years. All data will be destroyed after this period. Your child’s information will only be used for the purpose of this study project and it will only be disclosed with your permission, except as required by law.

For further information contact:
If you would like any further information on this study you may contact Helen Widdop Quinton or Amy Cutter-Mackenzie at: helen.widdop-quinton@scu.edu.au or amy.cutterm@scu.edu.au

All research in Australia involving humans is reviewed by an independent group of people, called a Human Research Ethics Committee (HREC). This research has been approved by the Southern Cross University Human Research Ethics Committee (HREC). The approval number is .

Complaints about the ethical conduct of this research should be addressed in writing to the following:
Ethics Complaints Officer
HREC
Southern Cross University
PO Box 157
Lismore, NSW, 2480
Email: ethics.lismore@scu.edu.au

All complaints are investigated fully and according to due process under the National Statement on Ethical Conduct in Human Research and this University. Any complaint you make will be treated in confidence and you will be informed of the outcome.
I agree to participation in the following areas of the research project (please tick your choice as applicable):

☐ The Assistant Researchers: part of the project that involves taking photos of places (not people) important to me in my daily activities. (Time commitment involved is approximately one hour over a two day period).
☐ A meeting to return the loan camera and discuss with the rest of the research participants the photos taken. This meeting will take approximately one hour and will be supported by the Indian staff from HELP Tourism. This meeting will be audio and video recorded.

I understand that participation is voluntary, that I can choose to withdraw from the study at any stage of the project without being disadvantaged in any way. I understand that any material that the researchers use from the project for use in reports or published findings will not, under any circumstances, identify the participants. No images will be utilised unless a photo release form has been completed. I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

-----------------------------------------------------------------------------------------------------------------------

**Young Person Consent**

I agree to take part in the Southern Cross University research project specified above:

Student's Name: ____________________________________________

School/Village: ____________________________________________

Age: __________________________ Male/Female: __________________________

Signature: __________________________ Date: __________________________

-----------------------------------------------------------------------------------------------------------------------

**Parent/Guardian Consent**

I freely consent for my child to take part in the Southern Cross University research project specified above. I have [please tick off each item to indicate your agreement):

☐ I have read the attached Participant Information Sheet outlining the nature and purpose of the research study and I understand what my child is being asked to do.
☐ I have been informed about the possible risks of my child taking part in this study.
☐ I have returned the Photo and Video Release Form with signatures completed (optional).
☐ I have retained the Participant Information Sheet for my records.

Parent/Guardian’s Name: __________________________________________

Signature: __________________________ Date: __________________________

-----------------------------------------------------------------------------------------------------------------------
PHOTO and VIDEO RELEASE FORM

I grant permission to Southern Cross University researchers, Amy Cutter-Mackenzie and Helen Widdop Quinton to use the digital photographs that I have taken and/or am photographed/videoed in for the Research Project, Place Matters: Exploring adolescents' preferred environmental places and learning. I understand that these images may be reproduced in publications generated from this research (report or conference presentation for example). No participant will be identified.

If you agree to us using your images in this way, please sign below where indicated.

Student Consent

☐ I agree to Southern Cross University researchers, Amy Cutter-Mackenzie and Helen Widdop Quinton using and reproducing my place photos and images of me in the manner explained above.

Signature: __________________________
Name: __________________________
School/Village: __________________________
Date: __________________________

Parental/Guardian Consent

☐ I agree to Southern Cross University researchers, Amy Cutter-Mackenzie and Helen Widdop Quinton using and reproducing photos and images of my child in the manner explained above.

Signature: __________________________
Name: __________________________
Date: __________________________
उन लोगों की 13 से 16 वर्ष की उम्र की युवजन समूह के लिए इस परियोजना से लाभ कर सकते हैं। ये लोगों के द्वारा उन्हें उनके अंतर्दृष्टि का विवरण देना और समस्त विषयों के लिए माहौल विश्वास कर सकते हैं।

अनुसंधान कार्यक्रम का शीर्षक कर्ता होगा:

1. के हर दो दिनों वातावरण की दर्शनीयता करने के लिए मैंने विश्वविद्यालय के शोधकर्ता द्वारा उपलब्ध बनाए गए एक छवित्त कैरेंट का उपयोग करते हैं।

2. दो दिन के अंत में, मैं सभी अनुमोदन दिए हुए और अनुमोदन में प्रवर्तित किया।

3. प्रत्येक चरण के दौरान और रूप का विषय करने के लिए समस्त विषयों को महत्वपूर्ण स्थान की समर्थन प्रदान करने के लिए सहायता प्राप्त करेंगे।

यह मेमोरी रिकॉर्ड किया जाएगा और लगभग एक घंटा लगेगा।

वह त्योहार तो इस परियोजना में अनुमोदन के साथ फुसूस कर सकते हैं, और वह अपनी आफ्ताबी दर्शनीयता के लिए प्रत्येक प्राइम पर प्रवाह करेगा।

प्रतिष्ठापन co-researchers लोगों की गणना में शामिल मानना है। तीन वर्षों के लिए इस परियोजना में सहायता के रूप में उनकी सिद्धांतों या व्यक्तिगत तथ्यों का संगठन हिस्सा नहीं करेंगे का अनुमोदन कर सकते हैं।

किसी भी शोध परियोजना में भाग लेने वाले कुछ शोधकर्ता एक आश्विनीदी प्रायोगिक प्रयोग प्राप्त करेंगे।

यदि आप भाग लेने वाले को देंगे, तो आप ले जा सकते हैं और अपने बच्चों की जरूरत में जुड़ी विषयों का पूरा अनुभव करने के लिए। फार्म और गतात्मक प्रवर्तितों के लिए स्वतंत्रता लगेगा।

यदि एक आश्विनीदी की इच्छा नहीं एक प्रश्न का उत्तर देने या और किसी दिशा पर प्रतिक्रिया करने के लिए, वे कर सकते हैं इस लिए और मीटिंग के जन्य पहुंचने के साथ आते बातें, या वे इस परियोजना में अपनी आश्विनीदी तूर पर ओढ़े कर सकते हैं। यदि आपके बच्चे परेशान हो जाता है या परिपार अवस्था में उनकी आश्विनीदी के रूप में परेशान
है, तुम जो स्कूल पर्यटन और गांव के स्कूल या अन्य उपयुक्त सहायता से सहायता के लिए व्यास्था करने के लिए कर सकते हैं विकासदीकरण के आनुपातिकता जिसकी जद्दी हो से संंथक करना पाएंगे।

यदि आप अपने बच्चों को इस अध्ययन से विकस से सक्षम करने के लिए इसका अध्ययन दस साल क्लिष्ट सियासत और शैक्षणिक से नया वाम मूल्य दिया जाननी रखना चाहिए (लॉहरी, कृष्ण, और सामय चर्चा प्रतिस्थापित)। यदि आप ऐसा करने के लिए उन्हें नहीं करना चाहते हैं तो इससे पहले की आप इस अनुसंधान परियोजना से वापस से उन्हें बतता होगा। हालांकि, (समय का बेदना रिकॉर्ड, आदि) रिकॉर्ड यह एक बार कुछ सामग्री को निकालना रक्षक नहीं हो सकता।

अध्ययन में समस्तता की गई सामग्रियों एक पीएचडी शोध परीक्षण के बारे में विकसित करने के लिए उपयोग किया जाएगा। अध्ययन दो से तीन महीनों का अध्ययन, जा तरी पर और अंतरराष्ट्रीय और अंतरराष्ट्रीय विश्वास समर्पण के लिए इस परीक्षण के रूप में प्रस्तुतियां का उपयोग करने के लिए इस्तेमाल किया जा सकता। गांव-स्तर के प्रवास तथा भुगतान रेजिडेंट की एक प्रति के साथ प्रस्तुत किया जाएगा। / किसी भी पक्ष की भाषा या प्रस्तुति में, जानकारी इस तरह से कि आपका बच्चा नहीं रहता जो सकता है उपयोग करता है। त्योहार शामिल करें जिनके बारे में रिपोर्ट या प्रस्तुतियों (लॉहरी, और बालिका पुस्तक) जो भी नहीं हैं हैं तो दिखाई देगा। इस त्योहार परीक्षण के लिए परिणाम भी अन्य अनुसंधान परीक्षणों में अर्थ का प्रभाव नहीं हो सकता। किसी भी जानकारी कि आपके बच्चे की पहली कुछ कर सकते हैं इस अध्ययन परीक्षण के संदर्भ में प्रथा की गौरवीय रहेगा। केवल अनुसंधान दौरा इस उपकरण जो सुरक्षित रूप से बुन से बुन 7 साल के लिए संतोषीत किया जाएगा के लिए उपयोग योग्य है। इस अध्ययन के बाद सभी डेटा नहीं होगी। आपके बच्चे की जानकारी केवल इस अनुसंधान परीक्षण के उद्देश्य के लिए इस्तेमाल किया जाएगा और यह बेबस आपकी अनुमति के साथ, अदालत किया जाएगा।

अधिक जानकारी के संपर्क के लिए:

आप हेलेन Widdop Quinton या एमी कुटर-मैकजी पर संपर्क कर सकते हैं यदि आप इस अध्ययन के लिए चिन्ता भी अधिक जानकारी की तरह हैं: helen.widdop.quinton@scu.edu.au या amy.cutterm@scu.edu.au

सभी अनुसंधान नतून में शामिल और अंतरराष्ट्रीय में एक त्योहार लोगों के समूह के एक मानव अनुसंधान आयोजन शामिल (HREC) करने जाता है दृष्टि की सम्मिलित की है। इस शोध दर्शनीय ओव्स विश्वविद्यालय मात्रा अनुसंधान आयोजन शामिल (HREC दौरा) अनुमोदित किया गया है। अनुमोदन संख्या है।

इस शोध के आयोजन के बारे में शिकायत करने के लिए निम्न लिखित रूप में संबंधित किया जाना चाहिए:

न्यूजीलैंड विश्वविद्यालय
HREC
दर्शनीय ओव्स विश्वविद्यालय
PO Box 157
Lismore, न्यू साउथ वेल्स, 2480
ईमेल: ethics.lismore@scu.edu.au

सभी विवरण की आप की पूरी तरह से और मानव अनुसंधान और इस विश्वविद्यालय में नैतिक आयोजन कर रहा है। इस्तेमाल की तैयारी के लिए अंतर्दृष्टि बच्चे के तत्काल कारण प्रकाश के अनुसार कर है जिसी भी शिक्षायत तुम बच्चों में दिखाई दिखाने की आवश्यकता और आप के परिवार सुनिश्चित किया जाएगा।
अभिवादन/आभारी सहमति पामे

अनुरोधित परियोजना शैक्षणिक जगह नामात: निदेशकों की वोन परवरण परवरण स्वामीं और अभिवादन

पिसिला जोकार्तरीम: A/प्रोफेसर एमी कर्न-सैंटो और प्रमुख हवेन Widop Quinton

भवन है: यह सहमति पामे अपने रिपोर्ट्स के लिए दक्षिणी क्रॉस विश्वविद्यालय के अनुरोधित परियोजना के साथ रहना होगा।

मैं अनुरोधित परियोजना के निर्माण/प्रभावी क्षेत्रों में भागीदारी के लिए सहमत (कृपया अपने विकल्प के रूप में लगभग रिकैर्ड):

☐ सहयोगी क्षेत्रों के परियोजना के भाग (अन्य को नहीं) अपने ध्येय/कीवित्रिक्ष में भरे लिए महत्वपूर्ण स्थान की तरह से शामिल है। (सामान्य प्रतिद्वंद्वी शामिल लगभग एक पटक के लिए दूसरे दिन की अवधि से अधिक है।)

☐ एक बैठक और कैसे के रूप बताया लिया तरीके प्रतिस्पर्धियों के अनुसार के आयाम के साथ बाहरी किया के लिए। इस गोल्डन के लगभग एक पटक लगे और गद्दी परस्पर से भारतीय कमर्शियल इंडस्ट्रीं द्वारा सामाजिक हो जाएगा। इस गोल्डन के अंतिमों हो जाएगा और विश्वासु दूर्ग की गई।

मैं समझता हूँ कि भागीदारी परवरण है, जिस में किसी भी तरह से बंटी बिला जा रहा दिखा इस परियोजना के बिंदुओं की भाग पर अभिवादन से जवाब करने के प्रकाश पुरे स्तर हैं। मैं समझता हूँ कि किसी भी सामसंग है कि शोधकर्ताओं से इस परियोजना का उपयोग रिपोर्ट के बारे में लिखी भाषा नहीं। कोई तरीके रिपोर्ट अपने पूरे हो गया है जब तक कि कोई छायास प्रतीतिहास का उपयोग कर जाएगा। मैं समझता हूँ कि मैं प्रदर्शन बनाए जानकारी गोल्डन है, और कि कोई जानकारी जो किसी भी व्यक्ति की भवन करने के लिए निर्देश कर सकता परियोजना पर, या किसी अन्य कितने के लिए निर्देश भी रिपोर्टें में सुनिश्चित किया जाएगा।

युवा लक्ष्य सहमति

मैं उपर निदेशित दक्षिणी क्रॉस विश्वविद्यालय की अनुरोधित परियोजना में भाग लेने के लिए सहमत।

छात्र का नाम: 

स्कूल/गाइड: 

युवा: Male/Female: 

हस्ताक्षर: Date: 

भाषा पिता/अभिवादन की सहमति

मैं स्वागत रूप से उपर निदेशित दक्षिणी क्रॉस विश्वविद्यालय की अनुरोधित परियोजना में मैं भाग लेने के लिए अपने दूरे के प्रयोग करने के लिए सहमत हूँ। मैं (कृपया अपनी सहमति का संदर्भ करने के लिए विश्वविद्यालय की ओर रिकैर्ड है):

☐ मैं संस्थान भारतीय सूत्रों की प्रवृत्ति और अनुसंधान अभ्यास के उद्देश्य से वास्तविक रूप से पहले किया गया है और मुझे समझ दे क्या मैं भरे करने के लिए कहा जा रहा है।

☐ मैं अपने दूरे के इस अभ्यास के भाग लेने के संसाधन खुदाई के कारण में बाहर रहा गया।

☐ मैं पुरुष पदों और हस्ताक्षर के साथ जीवन के बालिकाओं रिपोर्ट कर (एकलमूल) रूप से है।

☐ मैं अपने रिपोर्ट के लिए भारतीय जानकारी पत्र बनाना रहा हूँ।

भाषा पिता/संस्कार का नाम: 

हस्ताक्षर: Date: 

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फोटो और शीर्षकों रिसेप्शन पार्श्व

मैं दक्षिणी क्रॉस विश्वविद्यालय शैक्षणिक, एमसी कार्ट-मैकेरीज़ और हेलेन Widdop Quinton डिजिटल शैक्षणिक से लिया है या फोटो दिखायाएं/अनुसूची परियोजना के लिए, videoed मैं कर रहा हूँ कि का उपयोग करने की अनुमति देता जगह गामली, किंतु एक फैसला पर्यवेक्षण स्वभाव की जोड़ और बीने की। मैं समझता हूँ कि इन छवियों उपयोग प्रकाशन में reproduced जा सकता इस श्रेणी (उद्देश्य के लिए रिपोर्ट या सम्मेलन प्रस्तुति) से। कोई प्रतिबंध अनुच्छेद की जाएगी।

यदि आप हमें इस रास्ते में अपनी छवियों का उपयोग करने के लिए सहमत हैं, कृपया नीचे साइन करना और संकेत करें।

आप सहमति

☐ मैं सहमत हूँ, दक्षिणी क्रॉस विश्वविद्यालय शैक्षणिक, एमसी कार्ट-मैकेरीज़ और हेलेन Widdop Quinton समझाया इसके बाद के संरचना का उपयोग कर और मेरी जगह फोटो और छवियों गुणा या बाएं में तरीके से reproducing.

Signature: __________________________
Name: ___________________________

स्कूल/गामन: __________________________

Date: ___________________________

नाता पिठा/अभिव्यक्ति की सहमति

☐ मैं सहमत हूँ, दक्षिणी क्रॉस विश्वविद्यालय के अनुसूचीकरण के लिए, ऊपर एमसी कार्ट-मैकेरीज़ और हेलेन Widdop का उपयोग कर और reproducing तथ्यात्मक Quinton और उपरके सो मेरे बच्चों की छवियों समझाया।

Signature: __________________________
Name: ___________________________

Date: ___________________________
Appendix F: Growing Through Education Foundation (GTEF)

The Growing Through Education Foundation (GTEF) is a not-for-profit organisation that aims to provide financial and practical assistance to schools with specific development needs. Our vision is to raise sufficient yearly funding to directly support identified schools, including; teacher training & professional development, improving educational infrastructure and advancing educational opportunities. 100% of all donations, sponsorship and gifts are directed to the fund.

**Volunteer programs**

Growing Through Education Foundation uses funds raised through donations, sponsorship, fund raising activities and the Achieve Thru Art programs to help assist those deemed as ‘in need’. Over the past few years GTEF has facilitated a number of trips to the East Himalayan region in India utilising the assistance of volunteers to support local communities who have no / limited access to electricity, poor educational facilities and limited teaching aids.
Purpose

The purpose of the Growing Through Education Foundation (GTEF) is to provide financial and practical assistance to schools with specific development needs.

Vision

1. To raise sufficient yearly funding to directly support identified schools that require financial support. (Initial target schools to be located in the Northern area of West Bengal and also the province of Sikkim in India).
2. To provide practical assistance to nominated schools, including teacher training and professional development in specific curriculum areas. HELP Tourism (India) to guide the foundation in school selection.

Strategic Plan

1. To raise funds through targeted support groups such as:
   • Achieve Thru Art programs (Australia, Singapore, Hong Kong and other markets)
   • Donations
   • Fundraising Activities
   • ‘Sister School’ partnership opportunities and fundraisers
   • Corporate donation and sponsorship
2. To support further development of specific schools needs as nominated through the Foundation and to guide in financial and practical needs.
3. To raise awareness of the Foundation, through support programs such as Achieve Thru Art, Jet Airways, HELP Tourism and their associated organisations.
4. To enable and further the capacity and interest of volunteer support for future trips to schools.

Contact Us

website: www.growingthrougheducation.com
email: gtef@focalpromotions.com.eu
phone: +61 3 9585 8330
fax: +61 3 9585 8332
Appendix G: HELP Tourism

Help Tourism is an award winning Responsible Tourism organisation and DMC specialising in the East and North East India region. Our mission is to link protected areas and heritage sites of East Himalaya with people's livelihood through tourism and giving them ownership as the first step towards conservation, focusing on meaningful activities that combine the following ingredients:

- Heritage
- Environment
- Livelihood
- People

HELP Tourism has been playing a pioneering role in developing and promoting responsible tourism as a medium for social upliftment and conservation of cultural and natural heritages in East Himalaya since 1991.

To date, Help Tourism is associated with 30 conservation and community based tourism projects in the region and has partnered with more than one hundred community groups. HELP Tourism has been instrumental in the recent voluntourism developments in the Neora Valley by partnering with the Australian-based Growing Through Education Foundation (GTEF).

Help Tourism has received several national and international awards such as the recent 2012 Condé Nast Traveler World Savers Award and Tourism for Tomorrow (Finalist) Award (2007), CNBC-Awaaz Award (2009), Wild Asia Responsible Tourism Award (2009), ToFT (Travel Operators for Tigers), Wildlife Tour Operator of the Year Award (2010).

Contacts:

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Appendix H: India Think Tank Guiding Questions

**Place Matters in India research project – focus group topics**

- For the photos you have taken, please tell us about the places you photographed.
- Have any of you taken photos of the same places? Which ones?
- What is important about these places to you?
- Did any of the photos the others took surprise you or make you think ‘I wonder’? What was it about these photos that made you think this?
- What sort of learning / school activities are happening in the photos? What activities were involved exactly? How do you rate these activities – good, bad, useful etc?
- Can you identify and 1) Benefits to students 2) Benefits to teachers 3) Benefits to the school 4) Benefits to the village and 5) Benefits to the environment to do with any of the places photographed?
- Can you identify natural places used for learning?
- What places are important for being with friends? What makes these places special in this way?
- Can you identify any examples where teaching and learning changed as a result of being at a special place in the school?
- Any comments about this research project
Appendix I: Facebook interactions exemplar
Helen Widdop Quinton
Hi there. Thanks for all the photos on email this morning – I look forward to hearing all about them. Can you give a quick message here for the group about what this bunch of photos is about please.

Plus Mr Byrne was looking for a time for us to meet next but I haven’t heard back so stay tuned.

Like · Comment · February 25, 2013 at 4:42pm

 [<] Seen by 3

Helen Widdop Quinton
Now that you fully back at school – what is/are your favourite places around school that you are enjoying using again?

Like · Comment · February 12, 2013 at 9:23pm

[<] Likes this.

[<] the sustainability centre! but still mostly
the basketball courts
February 13, 2013 at 5:23pm · Like

Helen Widdop Quinton So the basketball courts for being with friends. What is it about the sustainability centre that makes it a significant place for you?
February 13, 2013 at 9:39pm · Like

[<] well a few of us girls like to go there so we can just have some girl time to talk without everyone being there and to get away from boys
February 14, 2013 at 6:58am · Like

Helen Widdop Quinton Are you allowed into the building? Which part to you use?
February 14, 2013 at 7:46am · Like
Appendix J: Place That Matter Survey

Places that Matter to adolescents

Places that Matter Research Survey

This survey is to ask your opinion about what places you value and how you use these places. It is part of a PhD research project investigating what places and spaces matter to teenagers and their preferred uses of local places.

Informally, researchers have identified that teenagers’ views about their local places are missing in research findings, so this is considered important work. Your advice (from your survey responses) will be used to report back to other researchers, your school and through university publications.

Your survey responses are anonymous. The survey is about getting a young person’s ideas and opinions – so all answers are right, there are no wrong answers and there are no trick questions!

The survey has been designed based on ideas from Assistant Researchers who have been working on this project who are students at your school (a big thanks to those students). If you have any questions or queries relating to this project please contact Helen Widdop-Quinton via helen.widdop-quinton@scu.edu.au.

This survey has 46 questions and should take you about 20 minutes. The questions are a mixture of ‘click the button’ and short text answers, with some photo response questions for interest. Doing the survey is voluntary. You can stop the survey at any time but it would really help if you answer all questions.

This research project has been approved by the Southern Cross University Human Research Ethics Committee. Complaints about the ethical conduct of this research should be addressed in writing to the following:

Ethics Complaints Officer
HRREC
Southern Cross University
PO Box 107
Lismore, NSW 2480
Email: ethics@scu.edu.au

All complaints are investigated fully and according to due process under the National Statement on Ethical Conduct in Human Research and this University. Any complaint you make will be treated in confidence and you will be informed of the outcome.

The first part of the survey asks some brief details about you – this will help us tell if different things are important for different kids. … so click NEXT to continue onto the survey.

Thank you very much for doing the survey - it is really important to have a student's opinion for this research.
## Places that Matter to Adolescents

### Section 1: Personal background

1. Are you male or female? 
   -  

2. What is your date of birth? 
   - DD / MM / YYYY  

3. What is the name of the school you currently attend? 
   -  

4. What primary school did you attend in Year 6? 
   -  

5. If you have attended any other secondary school in the past, what school was this? 
   -  

6. In which country did your mother go to school? [If more than one country, show the place she spent the most time in while of school age.] 
   -  

7. In which country did your father go to school? [If more than one country, show the place he spent the most time in while of school age.] 
   -  

---

Page 2
Places that Matter to Adolescents

Section 2: A typical day for you

8. In a typical day, how much time do you usually spend outside (playing sports or just hanging out)?

9. In a typical day, how much time do you usually spend on social media eg Facebook?

10. In a typical day, how much time do you usually spend watching TV?

11. In a typical day, how much time do you usually spend on your phone - texting, using apps, etc?

12. In a typical day, how much time do you usually spend with friends?

13. In a typical day, how much time do you usually spend on a computer but NOT on online sharing spaces eg Facebook, gaming, etc.

14. In a typical day, how much time do you usually spend travelling to and from places (eg from home to school, from school to other activities, etc)?

Now we will get on to the survey questions about places that matter to you.....
Places that Matter to adolescents

Section 3: Places that matter to you

15. List the 2 - 3 places/spaces that you most value in YOUR EVERYDAY LIFE:
   1. 
   2. 
   3. 

16. For the everyday places/spaces you listed in Q15, what makes them valuable to you?
   1. 
   2. 
   3. 

17. List 2 - 3 natural or 'green' places that you most value (places that have lots of plants, maybe some water, rocks, etc):
   1. 
   2. 
   3. 

18. For the natural or 'green' places you listed in Q17, what makes them valuable to you?
   1. 
   2. 
   3. 

19. List your 2 - 3 all time favourite places/spaces
   1. 
   2. 
   3. 

20. For your all time favourite places/spaces you listed in Q19, what makes them your favourites?
   1. 
   2. 
   3. 

## Places that Matter to Adolescents

21. For the ten places/spaces listed below, rank them from 1 - 10, MOST (1) to LEAST (10) important to you.

- Backyard
- Facebook
- Other online sharing spaces, eg gaming, Youtube, Instagram, Twitter
- Beach
- Bedroom
- Sporting ground
- Recreation area (not sporting) at school
- Recreation area (not sporting) in your local area eg park
- Playground at school
- Regular family holiday/weekend place eg farm, beach house

### 22. What is nature to you?

### 23. How do you learn about nature / the natural environment?

### 24. What is your favourite natural environment?

### 25. What is it about your favourite natural environment you listed in Q24 that you value?
Places that Matter to adolescents

26. For the ten activities listed below, rank them from 1 - 10 your MOST (1) to LEAST (10) liked things you prefer to do in your SCHOOL GROUNDS:

- Being peaceful, quiet and thoughtful
- Playing / hanging out, having fun
- Exploring and finding out interesting things
- Getting away from adults / being private
- Doing adventure and challenging activities
- Being with friends
- Hands on learning about something new
- Avoiding work and responsibilities
- Playing sports / games
- Doing anything in the outdoors, not in the inside

27. Are your school grounds valuable for your learning?

28. Explain what made you choose either yes or no in Q27.

29. If it was your choice, WHAT would you change about your school grounds?

30. If it was your choice, what would you change about HOW your school grounds are used?

Thank you for adding your insight to this research on what places matter to teenagers - you are well over half way through now!
31. For the ten activities listed below, rank them from 1 - 10 your MOST (1) to LEAST (10) liked things you prefer to do in your LOCAL 'GREEN' PLACES - backyard, park, golf course, beach, etc:
[Note this is different to the earlier question about the activities in your school grounds]

- Being peaceful, quiet and thoughtful
- Playing / hanging out, having fun
- Exploring and finding out interesting things
- Getting away from adults / being private
- Doing adventure and challenging activities
- Being with friends
- Hands on learning about something new
- Avoiding work and responsibilities
- Playing sports / games
- Doing anything in the outdoors, nicer than inside

32. Describe the best / your favourite non-sporting experience that took place in the outdoors?

33. What is it about this experience in Q32 that makes you value it as your best / favourite outdoor experience?

34. How is nature a part of your life?

Next, some easy photo-prompt questions :)}
Places that Matter to adolescents

For Questions 35 - 37 click on the 'button' that best fits your view about how important the following activities are to you in your schooling:

Gardening

35. How important is this activity to you in your life at school?

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<th>neither important nor unimportant</th>
<th>extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gardening</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
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Being quiet and thoughtful

36. How important is this activity to you in your life at school?

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<th>extremely important</th>
</tr>
</thead>
<tbody>
<tr>
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Fitness activities

37. How important is this activity to you in your life at school?

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<tr>
<td>Fitness activities</td>
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<td>O</td>
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### Places that Matter to adolescents

#### Looking after the environment

**36. How important is this activity to you in your life at school?**

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<th>extremely important</th>
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</thead>
<tbody>
<tr>
<td>Looking after the environment</td>
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</tbody>
</table>

#### Just enjoying nature

**39. How important is this activity to you in your life at school?**

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</thead>
<tbody>
<tr>
<td>Just enjoying nature</td>
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#### Fieldwork

**40. How important is this activity to you in your life at school?**

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</thead>
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</tbody>
</table>
# Places that Matter to Adolescents

## Hanging out with friends

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<td>[ ]</td>
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</table>

**41. How important is this activity to you in your life at school?**

## Working on real-life projects

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<tr>
<td>[ ]</td>
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**42. How important is this activity to you in your life at school?**

## Using nature for creative inspiration

<table>
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<td>[ ]</td>
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</tbody>
</table>

**43. How important is this activity to you in your life at school?**
44. What is the place/space that you most value in your school?

45. What is it about this place/space from Q44 that make it valued by you?

46. Each statement below refers to how you value outdoor learning activities as part of your school work. Click a 'button' that best matches your view about the statement on that row.

**Outdoor learning activities are …**

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<tr>
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<th>Neither Agree nor Disagree</th>
<th>Strongly Agree</th>
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<td>better than being in the classroom.</td>
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<tr>
<td>enjoyable learning.</td>
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<td>○</td>
<td>○</td>
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<tr>
<td>not important for my grades.</td>
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<td>○</td>
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<tr>
<td>help me understand topics better.</td>
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<tr>
<td>an important part of my learning.</td>
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<td>a time to have fun with friends.</td>
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</table>
47. Thank you very much for helping with this research!!

If you have any other comments or ideas about what places matter to teenagers, use the space below to add these to the survey.

Please click DONE to complete the survey.

Thanks!
Appendix K: NVivo data scoping word frequency cloud
Appendix L: NVivo query data scoping word tree for ‘play’
Appendix M: India photo frequency distribution – places with ‘nature close-ups’

Early data sorting frequency graph for the India adolescents’ photographic data – including both places and close-ups of nature elements (n=466).
## Appendix N: Survey place frequencies – all places

<table>
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<th>ED all %</th>
<th>Fav all prefs</th>
<th>Fav all %</th>
<th>Green all prefs</th>
<th>Green all %</th>
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<td>3</td>
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### Valued school PLACES

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<td>iconic/symbolic</td>
<td>11</td>
<td>9.9</td>
</tr>
<tr>
<td>indoor socialising/common room</td>
<td>10</td>
<td>9.0</td>
</tr>
<tr>
<td>my classroom</td>
<td>10</td>
<td>9.0</td>
</tr>
<tr>
<td>outdoor socialising</td>
<td>10</td>
<td>9.0</td>
</tr>
<tr>
<td>canteen</td>
<td>9</td>
<td>8.1</td>
</tr>
<tr>
<td>library</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td>dramma/music room</td>
<td>3</td>
<td>2.7</td>
</tr>
<tr>
<td>access to technology</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>indoor sporting</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>bus</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>farm - animals</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>TOTALS</td>
<td>111</td>
<td>100</td>
</tr>
</tbody>
</table>
### Appendix O: Survey interactions frequencies – all places

<table>
<thead>
<tr>
<th>INTERACTIONS</th>
<th>Everyday places were valued for:</th>
<th>Favourite places were valued for:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st preference</td>
<td>2nd preference</td>
</tr>
<tr>
<td></td>
<td>Freq. %</td>
<td>Freq. %</td>
</tr>
<tr>
<td>physical/embodie</td>
<td>10 7.5%</td>
<td>23 18.3%</td>
</tr>
<tr>
<td>experiencing</td>
<td>25 18.8%</td>
<td>14 11.1%</td>
</tr>
<tr>
<td>socialising</td>
<td>7 5.3%</td>
<td>35 27.8%</td>
</tr>
<tr>
<td>connectedness</td>
<td>30 29.3%</td>
<td>12 9.5%</td>
</tr>
<tr>
<td>nature</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td>renewal</td>
<td>19 14.3%</td>
<td>15 11.9%</td>
</tr>
<tr>
<td>learning</td>
<td>1 0.8%</td>
<td>0 0%</td>
</tr>
<tr>
<td>virtual</td>
<td>8 6%</td>
<td>7 5.6%</td>
</tr>
<tr>
<td>iconic/memory</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td>safe haven</td>
<td>5 3.8%</td>
<td>2 1.6%</td>
</tr>
<tr>
<td>privacy</td>
<td>15 11.3%</td>
<td>4 3.2%</td>
</tr>
<tr>
<td>education (future)</td>
<td>4 3%</td>
<td>13 10.3%</td>
</tr>
<tr>
<td>Total</td>
<td>133 100%</td>
<td>126 100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTERACTIONS</th>
<th>Most valued 'green' valued for:</th>
<th>Fav natural for:</th>
<th>Fav school for:</th>
<th>Outdoor exp for:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st preference</td>
<td>2nd preference</td>
<td>3rd preference</td>
<td>1st preference</td>
</tr>
<tr>
<td></td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
</tr>
<tr>
<td>physical/embodie</td>
<td>27 22.9%</td>
<td>42 35.9%</td>
<td>29 20.0%</td>
<td>13 10.2%</td>
</tr>
<tr>
<td>experiencing</td>
<td>36 30.5%</td>
<td>24 20.5%</td>
<td>9 15.5%</td>
<td>48 37.5%</td>
</tr>
<tr>
<td>socialising</td>
<td>4 3.4%</td>
<td>7 6.0%</td>
<td>4 6.9%</td>
<td>2 1.6%</td>
</tr>
<tr>
<td>connectedness</td>
<td>9 7.6%</td>
<td>3 2.6%</td>
<td>1 1.7%</td>
<td>14 10.9%</td>
</tr>
<tr>
<td>nature</td>
<td>29 24.6%</td>
<td>18 15.4%</td>
<td>8 13.8%</td>
<td>47 36.7%</td>
</tr>
<tr>
<td>renewal</td>
<td>12 10.2%</td>
<td>13 11.1%</td>
<td>3 5.2%</td>
<td>4 3.1%</td>
</tr>
<tr>
<td>learning</td>
<td>0 0%</td>
<td>1 0.9%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td>virtual</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td>iconic/memory</td>
<td>1 0.8%</td>
<td>7 6.0%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td>safe haven</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td>privacy</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td>education (future)</td>
<td>0 0%</td>
<td>2 1.7%</td>
<td>1 1.7%</td>
<td>0 0%</td>
</tr>
<tr>
<td>Total</td>
<td>118 100%</td>
<td>117 100%</td>
<td>58 100%</td>
<td>128 100%</td>
</tr>
</tbody>
</table>
### Data organising and coding ‘rules of thumb’ to maintain consistency:

<table>
<thead>
<tr>
<th>Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>For holiday places – only use 5 photos of one place per student</td>
</tr>
<tr>
<td>Code only once in place categories for a place that is photographed AND referred to in the Think Tank</td>
</tr>
<tr>
<td>Think Tank comments of separate mentions of another (but related) place – add as separate place entry. Eg bedroom photo from one but another student talks about their bedroom – treat as two bedroom entries.</td>
</tr>
<tr>
<td>Close up of plant/insect etc that is not a recognisable place – place has to be seen – not in place categories.</td>
</tr>
<tr>
<td>Anything to do with body – food, movement, etc. = physical interaction.</td>
</tr>
<tr>
<td>Virtual interactions includes listing of – ipad, iphone, computer, mac, game console, screens, etc.</td>
</tr>
<tr>
<td>If reasons/explanations/interpretations are not clearly within a category, then default to lesser category. Eg if on the border of indicating place meaning and place identity – go with meaning not identity.</td>
</tr>
<tr>
<td>Mentions of possessive – my family, my bedroom, my home, I love etc. – indicative of identity.</td>
</tr>
<tr>
<td>For place relationships – if just provides something = affordance. If meaningful but not about ‘me’ then = meaning. If about me then identity. Dependence – obvious.</td>
</tr>
<tr>
<td>When survey listed multiple reasons, eg friends and learning – put first mention only consistent with the other first preferences lists.</td>
</tr>
<tr>
<td>Explanations re employment etc after school = education (future)</td>
</tr>
<tr>
<td>If listed sport place/sporty without any explanation about belonging or friends – then just sports not a cognitive (gathering, keeping etc place)</td>
</tr>
</tbody>
</table>
## Appendix Q: Survey ranking questions – all response statistics

### 21. For the ten places/spaces listed below, rank them from 1 - 10, MOST (1) to LEAST (10) important to you.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Rating Average</th>
<th>Rating Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backyard</td>
<td>4.3%</td>
<td>9.6%</td>
<td>18.1%</td>
<td>16.7%</td>
<td>14.5%</td>
<td>13.0%</td>
<td>8.7%</td>
<td>7.2%</td>
<td>4.3%</td>
<td>3.6%</td>
<td>4.89</td>
</tr>
<tr>
<td>Facebook</td>
<td>12.3%</td>
<td>4.3%</td>
<td>4.3%</td>
<td>2.2%</td>
<td>8.2%</td>
<td>7.2%</td>
<td>4.3%</td>
<td>5.1%</td>
<td>8.7%</td>
<td>4.2%</td>
<td>3rd</td>
</tr>
<tr>
<td>Other online sharing spaces, eg gaming, YouTube, Instagram, Twitter</td>
<td>9.4%</td>
<td>20.3%</td>
<td>9.4%</td>
<td>5.8%</td>
<td>7.2%</td>
<td>8.0%</td>
<td>7.2%</td>
<td>6.5%</td>
<td>10.7%</td>
<td>9.4%</td>
<td>5.33</td>
</tr>
<tr>
<td>Beach</td>
<td>10.1%</td>
<td>14.5%</td>
<td>13.8%</td>
<td>23.3%</td>
<td>12.3%</td>
<td>9.0%</td>
<td>10.1%</td>
<td>6.5%</td>
<td>2.9%</td>
<td>1.4%</td>
<td>3rd</td>
</tr>
<tr>
<td>Bedroom</td>
<td>23.9%</td>
<td>18.8%</td>
<td>18.1%</td>
<td>12.3%</td>
<td>9.4%</td>
<td>2.9%</td>
<td>2.9%</td>
<td>2.2%</td>
<td>5.8%</td>
<td>3.6%</td>
<td>138</td>
</tr>
<tr>
<td>Spinning ground</td>
<td>18.3%</td>
<td>10.0%</td>
<td>8.7%</td>
<td>10.9%</td>
<td>7.2%</td>
<td>11.6%</td>
<td>5.8%</td>
<td>9.4%</td>
<td>8.0%</td>
<td>8.7%</td>
<td>4.93</td>
</tr>
<tr>
<td>Recreation areas (not sporting) at school</td>
<td>1.4%</td>
<td>5.1%</td>
<td>7.2%</td>
<td>8.0%</td>
<td>10.9%</td>
<td>17.4%</td>
<td>21.0%</td>
<td>17.4%</td>
<td>5.4%</td>
<td>2.2%</td>
<td>6.17</td>
</tr>
<tr>
<td>Recreation areas (not sporting) in your local area eg park</td>
<td>0.0%</td>
<td>2.9%</td>
<td>7.2%</td>
<td>9.4%</td>
<td>13.0%</td>
<td>23.3%</td>
<td>9.4%</td>
<td>10.9%</td>
<td>2.9%</td>
<td>2.2%</td>
<td>8.40</td>
</tr>
<tr>
<td>Playground at school</td>
<td>1.4%</td>
<td>2.9%</td>
<td>5.8%</td>
<td>5.8%</td>
<td>10.9%</td>
<td>23.3%</td>
<td>9.4%</td>
<td>10.9%</td>
<td>2.9%</td>
<td>2.2%</td>
<td>7.19</td>
</tr>
<tr>
<td>Regular family holiday/weekend place eg farm, beach/house</td>
<td>20.3%</td>
<td>8.7%</td>
<td>7.2%</td>
<td>6.7%</td>
<td>10.9%</td>
<td>8.0%</td>
<td>5.8%</td>
<td>8.7%</td>
<td>10.9%</td>
<td>10.9%</td>
<td>5.13</td>
</tr>
</tbody>
</table>

### 26. For the ten activities listed below, rank them from 1 - 10 your MOST (1) to LEAST (10) liked things you prefer to do in your SCHOOL GROUNDS:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Rating Average</th>
<th>Rating Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being peaceful, quiet and thoughtful</td>
<td>10.3%</td>
<td>7.6%</td>
<td>9.9%</td>
<td>9.2%</td>
<td>5.3%</td>
<td>9.9%</td>
<td>10.7%</td>
<td>6.9%</td>
<td>8.4%</td>
<td>16.8%</td>
<td>5.56</td>
</tr>
<tr>
<td>Playing / hanging out, having fun</td>
<td>16.0%</td>
<td>34.4%</td>
<td>21.4%</td>
<td>7.6%</td>
<td>1.5%</td>
<td>3.8%</td>
<td>4.6%</td>
<td>3.8%</td>
<td>6.1%</td>
<td>8.6%</td>
<td>3.35</td>
</tr>
<tr>
<td>Exploring and finding out interesting things</td>
<td>4.6%</td>
<td>5.5%</td>
<td>11.5%</td>
<td>16.8%</td>
<td>14.5%</td>
<td>12.2%</td>
<td>11.5%</td>
<td>6.9%</td>
<td>2.5%</td>
<td>5.38</td>
<td>131</td>
</tr>
<tr>
<td>Getting away from adults / being private</td>
<td>3.9%</td>
<td>5.8%</td>
<td>11.5%</td>
<td>8.4%</td>
<td>12.2%</td>
<td>9.2%</td>
<td>13.0%</td>
<td>14.9%</td>
<td>7.5%</td>
<td>6.00</td>
<td>121</td>
</tr>
<tr>
<td>Doing adventure and challenging activities</td>
<td>4.6%</td>
<td>1.5%</td>
<td>4.6%</td>
<td>13.0%</td>
<td>19.8%</td>
<td>12.2%</td>
<td>9.2%</td>
<td>6.1%</td>
<td>3.1%</td>
<td>4.6%</td>
<td>3.41</td>
</tr>
<tr>
<td>Being with friends</td>
<td>30.5%</td>
<td>18.3%</td>
<td>16.8%</td>
<td>6.9%</td>
<td>5.3%</td>
<td>6.9%</td>
<td>8.1%</td>
<td>1.5%</td>
<td>3.1%</td>
<td>4.6%</td>
<td>131</td>
</tr>
<tr>
<td>Hands on learning about something new</td>
<td>1.5%</td>
<td>2.3%</td>
<td>1.5%</td>
<td>9.2%</td>
<td>12.2%</td>
<td>16.3%</td>
<td>23.7%</td>
<td>13.7%</td>
<td>8.4%</td>
<td>6.92</td>
<td>131</td>
</tr>
<tr>
<td>Avoiding work and responsibilities</td>
<td>4.6%</td>
<td>4.6%</td>
<td>3.8%</td>
<td>5.8%</td>
<td>9.2%</td>
<td>6.1%</td>
<td>9.2%</td>
<td>9.2%</td>
<td>21.4%</td>
<td>29.8%</td>
<td>7.45</td>
</tr>
<tr>
<td>Playing sports / games</td>
<td>13.0%</td>
<td>18.3%</td>
<td>13.7%</td>
<td>8.4%</td>
<td>5.1%</td>
<td>4.5%</td>
<td>8.1%</td>
<td>8.4%</td>
<td>9.2%</td>
<td>13.7%</td>
<td>5.09</td>
</tr>
<tr>
<td>Doing anything in the outdoors, more than inside</td>
<td>6.1%</td>
<td>2.3%</td>
<td>5.3%</td>
<td>16.8%</td>
<td>13.0%</td>
<td>10.7%</td>
<td>12.2%</td>
<td>10.7%</td>
<td>13.0%</td>
<td>6.17</td>
<td>131</td>
</tr>
</tbody>
</table>
31. For the ten activities listed below, rank them from 1 - 10 your MOST (1) to LEAST (10) liked things you prefer to do in your LOCAL 'GREEN PLACES - backyard, park, golf course, beach, etc: [note this is different to the earlier question about the activities in your school grounds]

<table>
<thead>
<tr>
<th>Activity</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Rating Average</th>
<th>Rating Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being peaceful, quiet and thoughtful</td>
<td>26.2%</td>
<td>10.7%</td>
<td>7.4%</td>
<td>7.4%</td>
<td>9.8%</td>
<td>4.9%</td>
<td>4.9%</td>
<td>8.2%</td>
<td>4.1%</td>
<td>16.4%</td>
<td>4.79</td>
<td>122</td>
</tr>
<tr>
<td>Playing / hanging out, having fun</td>
<td>17.2%</td>
<td>27.9%</td>
<td>22.1%</td>
<td>12.3%</td>
<td>6.6%</td>
<td>6.6%</td>
<td>6.6%</td>
<td>2.5%</td>
<td>2.5%</td>
<td>2.5%</td>
<td>3.25</td>
<td>122</td>
</tr>
<tr>
<td>Exploring and finding out interesting things</td>
<td>1.6%</td>
<td>11.5%</td>
<td>13.9%</td>
<td>15.6%</td>
<td>10.8%</td>
<td>13.1%</td>
<td>14.8%</td>
<td>4.9%</td>
<td>4.1%</td>
<td>3.6%</td>
<td>5.02</td>
<td>122</td>
</tr>
<tr>
<td>Getting away from adults / being private</td>
<td>4.0%</td>
<td>4.1%</td>
<td>8.2%</td>
<td>14.2%</td>
<td>13.1%</td>
<td>9.0%</td>
<td>7.4%</td>
<td>13.9%</td>
<td>10.7%</td>
<td>6.00</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>Doing adventure and challenging activities</td>
<td>2.5%</td>
<td>3.3%</td>
<td>6.8%</td>
<td>12.3%</td>
<td>17.2%</td>
<td>28.7%</td>
<td>13.9%</td>
<td>12.3%</td>
<td>1.6%</td>
<td>5.63</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>Being with friends</td>
<td>24.6%</td>
<td>18.0%</td>
<td>9.8%</td>
<td>11.5%</td>
<td>4.9%</td>
<td>12.3%</td>
<td>9.8%</td>
<td>2.5%</td>
<td>3.3%</td>
<td>3.88</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>Hands on learning about something new</td>
<td>0.0%</td>
<td>0.8%</td>
<td>1.6%</td>
<td>7.4%</td>
<td>7.4%</td>
<td>6.8%</td>
<td>23.0%</td>
<td>26.2%</td>
<td>19.7%</td>
<td>23.8%</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>Avoiding work and responsibilities</td>
<td>4.9%</td>
<td>3.3%</td>
<td>3.3%</td>
<td>5.7%</td>
<td>6.7%</td>
<td>8.2%</td>
<td>9.8%</td>
<td>19.7%</td>
<td>23.3%</td>
<td>7.38</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>Playing sports / games</td>
<td>14.8%</td>
<td>13.1%</td>
<td>18.0%</td>
<td>1.6%</td>
<td>6.8%</td>
<td>1.6%</td>
<td>4.9%</td>
<td>8.2%</td>
<td>20.5%</td>
<td>5.35</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>Doing anything in the outdoors, nicer than inside</td>
<td>3.2%</td>
<td>7.4%</td>
<td>9.0%</td>
<td>11.5%</td>
<td>10.7%</td>
<td>8.2%</td>
<td>8.2%</td>
<td>9.8%</td>
<td>23.8%</td>
<td>6.43</td>
<td>122</td>
<td></td>
</tr>
</tbody>
</table>

46. Each statement below refers to how you value outdoor learning activities as part of your school work. Click a 'button' that best matches your view about the statement on that row. Outdoor learning activities are ...

<table>
<thead>
<tr>
<th>Statement</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neither agree nor disagree</th>
<th>agree</th>
<th>strongly agree</th>
<th>Rating Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>better than being in the classroom</td>
<td>5.5% (7)</td>
<td>0.8% (1)</td>
<td>4.7% (6)</td>
<td>15.7% (20)</td>
<td>10.2% (13)</td>
<td>24.4% (31)</td>
</tr>
<tr>
<td>enjoyable learning</td>
<td>4.7% (6)</td>
<td>0.8% (1)</td>
<td>5.5% (7)</td>
<td>10.2% (13)</td>
<td>19.7% (25)</td>
<td>24.4% (31)</td>
</tr>
<tr>
<td>not important for my grades</td>
<td>20.6% (28)</td>
<td>19.0% (24)</td>
<td>7.9% (10)</td>
<td>27.0% (34)</td>
<td>8.7% (11)</td>
<td>7.9% (10)</td>
</tr>
<tr>
<td>help me understand topics better</td>
<td>4.8% (6)</td>
<td>3.3% (8)</td>
<td>11.9% (15)</td>
<td>26.4% (37)</td>
<td>16.7% (21)</td>
<td>19.0% (24)</td>
</tr>
<tr>
<td>a budge</td>
<td>24.8% (39)</td>
<td>5.4% (11)</td>
<td>6.8% (9)</td>
<td>41.9% (60)</td>
<td>5.1% (6)</td>
<td>6.0% (7)</td>
</tr>
<tr>
<td>an important part of my learning</td>
<td>6.5% (8)</td>
<td>5.7% (7)</td>
<td>6.5% (8)</td>
<td>16.3% (20)</td>
<td>26.0% (32)</td>
<td>21.1% (26)</td>
</tr>
<tr>
<td>a time to have fun with friends</td>
<td>1.6% (2)</td>
<td>1.6% (2)</td>
<td>1.6% (2)</td>
<td>11.8% (15)</td>
<td>8.7% (11)</td>
<td>23.6% (30)</td>
</tr>
</tbody>
</table>
Appendix R: Survey school ground changes responses

Changes the survey respondents identified as changes they would make to the features and use of their school grounds.

<table>
<thead>
<tr>
<th>Changes to school grounds</th>
<th>WHAT (school grounds change)</th>
<th>HOW (school grounds change)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Green School %</td>
<td>Blue School %</td>
</tr>
<tr>
<td>maintenance</td>
<td>8 14</td>
<td>2 4</td>
</tr>
<tr>
<td>more facilities</td>
<td>24 41</td>
<td>29 53</td>
</tr>
<tr>
<td>change rules</td>
<td>1 2</td>
<td>4 7</td>
</tr>
<tr>
<td>more outdoor learning (+sport)</td>
<td>2 3</td>
<td>1 2</td>
</tr>
<tr>
<td>more activities</td>
<td>2 3</td>
<td>0 0</td>
</tr>
<tr>
<td>more 'green'</td>
<td>2 3</td>
<td>14 25</td>
</tr>
<tr>
<td>no change</td>
<td>20 34</td>
<td>5 9</td>
</tr>
<tr>
<td>more waste wise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>responsible use, not damaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td>59 100</td>
<td>55 100</td>
</tr>
</tbody>
</table>