A Breath of Fresh Air:
Social marginalisation and wellbeing. Exploring an outdoor pedagogical approach to learning to promote self-esteem and engagement.

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Abstract
This study investigates an alternative outdoor learning strategy used to address issues of engagement and performance in a disadvantaged regional school in Western Australia. Through exploring the impact of such strategies we may gain an insight into the value of such approaches in promoting wellbeing and, in turn, education outcomes.

Increasing cases of stress and other mental health related illnesses are a cause for national concern (Australian Institute of Health and Welfare, 2010). Interestingly the AIHW (2010) identifies marginalised Australians as a group at risk, having shorter life span than groups of greater economic advantage. Kappos (2007) among others (Maynard, 2007) also offers evidence, which suggests that the reduced contact children have with nature can be linked with a decline in physical, mental and social development. Maller et al. (2005) maintain that contact with nature can act as a vehicle to reduce the burden of mental health and promote mental and emotional wellbeing along with physical wellbeing.

A qualitative methodology frames the study design, which used a case study method bounded by a single case school with a timeframe of a 10-week term. Examining a specific outdoor learning approach known as forest schools, the case study’s aim was to explore the impact of this program on self-esteem and engagement and consequently identify emergent themes. The study suggests to me that there is potential for such a program to impact on areas of engagement and self-esteem through group connectedness, belonging and social interactions. This can be particularly important for disadvantaged youth. It was difficult, however, to establish a transfer of benefits in a classroom setting context. Related research in this field and to this study also suggests there is a need for more local research over longer periods of time in order to best examine different contexts of locations and understandings more conclusively.
Declaration

This is to certify that

i. the thesis comprises only my original work towards the masters except where indicated in the Preface,

ii. due acknowledgement has been made in the text to all other material used,

iii. the thesis is 22 933 words in length, exclusive of tables, maps, bibliographies and appendices

Signed

Fiona Cumming  date:

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Chapter 1
Introduction

We said there warn't no home like a raft, after all. Other places do seem so cramped up and smothery, but a raft don't. You feel mighty free and easy and comfortable on a raft.


When I was a child I spent most of my time outside exploring and wandering the natural surrounds of my neighbourhood. My siblings and I walked long distances to school, climbed trees and were outside for hours, if not all day, with our only instruction to make sure we were home before dark. Many children today may not have the same contact with nature or the freedom I was provided in my childhood. Researchers fear this is negatively impacting on their health and wellbeing (Kappos, 2007; Maller, Townsend, Pryor, Brown & St Leger, 2005).

My experiences with my own children have shown me how much has changed. They are less free to roam the neighbourhood and limited in where they can play. Kappos (2007) argues that several factors have accounted for the reduced time outside: urbanisation and a lack of green space; perceived risk of injury or abduction; fear of the outdoors; and an increase in the use of electronic media and virtual play. Technological advances have enabled easy access to a range of electronic media accounting for increases in time spent viewing computer screens and television screens, referred to as screen time (Kappos, 2007). In addition to this children’s play has become increasingly organised with highly structured sports programs that remove a sense of autonomy, the experience of risk and associated positive health benefits. Worryingly an increase in the decline in the health of young Australians has been recently reported (Australian Institute of Health and Welfare, 2010). These include increases
in obesity, stress and other mental health-related illnesses (AIHW, 2010). Obesity is identified as a major health risk with 61 per cent of adults and 25 per cent of children aged between five and 17 identified as overweight or obese (AIHW, 2010). Mental health-related illnesses are also a concern with one in four people aged 16 to 24 reporting a mental disorder at some point within a 12-month period (AIHW, 2010). Interestingly marginalised Australians are identified as a group at risk, with shorter life span than groups of greater economic advantage. Kappos (2007) and Maynard (2007) offer evidence that suggests the reduced contact children have with nature can be linked with a decline in physical, mental and social development.

There are a number of approaches to outdoor pedagogy that promote contact with nature. These can include Outdoor Education often referred to as a discrete subject in the curriculum (Gair, 1997). Another type of outdoor pedagogy is identified as separate residential programs in outdoor environments and termed outdoor adventure education (Hattie, Marsh, Neill & Richards, 1997). Outdoor learning is an outdoor pedagogy that has a broader definition and encompasses being outside of the classroom where there is an impact from being outside in the natural environment (Davis, Rae & Waite, 2006). For the purpose of this paper I will refer to outdoor learning in discussions of outdoor pedagogy.

Gair (1997) contends that outdoor learning promotes physical activity, self-esteem, and interpersonal, social and emotional development through contact with nature. Outdoor learning enhances a sense of freedom and self-confidence to boost self-esteem (Davidson, 2001). It also promotes positive social relationships developed through involvement in these programs (Mygind, 2009).
Concerns about the physical and emotional wellbeing of children and my love of the outdoors guide me in both my teaching and parenting. I have used and developed programs that promote contact with nature and consequently gauged the impact these programs have in both reconnecting children with nature along with their sense of self and engagement. The natural world is a forgotten resource. As an educator I am concerned about the increasingly structured and regulated approach to outdoor learning. The lack of time it is afforded in school curricula, particularly in primary schools, concerns me and I believe consequently impact children’s wellbeing.

**Research Questions**

In taking the view that forest schools can act as an alternative learning approach and have potential to impact on aspects of wellbeing, in my study I have decided to explore specifically self-esteem and sense of belonging and to examine the extent student engagement is affected and supports learning. It was my intention to obtain a greater depth of understanding about the impact of the outdoor pedagogical approach of forest schools to teaching and learning within the context of a single case primary school. The questions driving my study are therefore:

*Research questions*

To what extent does the outdoor learning environment provided by the implementation of the forest school approach to learning have any noticeable impact on self-esteem and sense of belonging among participants?
In order to pursue answers to this complex question I attempt to gain a deeper understanding of the forest school approach to learning by exploring its impact on participants and their experiences of the program, I have divided this main question into four sub-questions:

1. Are there improved outcomes in self-esteem and sense of belonging as a result of the forest school experience amongst participants?
2. Is student engagement affected by participation in the forest school program and does this act as an enabler to learning?
3. Are there any other emergent concepts that arise from the case school’s implementation of the forest school program?
4. How do pupils and staff interpret their experience with the forest school program?

**Context**

The case school is a regional government primary school in Western Australia with a student population of approximately 300. The school receives funding from the National Partnership Agreement on low Socio-economic communities (Australian Government, 2012) to support initiatives that aim to improve education outcomes. The forest school program is documented on the school plan for 2012 as one of these programs.

Observational field data I obtained demonstrated that the school was disadvantaged in that the school had washing machine facilities and spare clean uniforms for those students who came to school in unwashed clothes. There was also a breakfast club to encourage students to attend school, which provided them with a healthy breakfast. The school had an attendance officer to follow up families of truanting students and a school chaplain to provide support to
students. They also employed an extra assistant for intervention programs in relation to behaviour management.

The school had recently changed its name and school uniform to create a more positive image to show the community the school was making changes to improve its standing.

The school setting is 2 kilometres from the coast and has natural bushland reserve as a corridor between the housing and the beach. This corridor connects to the school. The case school is situated in an older state housing area and the neighbouring suburb is a newly developed housing estate. Observations and discussions in the field reveal a distinct difference in appearance and housing between the school’s surrounding housing to the new estate. The school population had declined over time and this was attributed to previous reputations and the newly developing housing areas nearby.

**Structure of thesis**

*Chapter 2: Literature review*

I reviewed literature relating to themes of outdoor learning and its impact on wellbeing, specifically mental health and engagement. As a result, I define outdoor education and outdoor learning and discuss differences in definitions in related studies. I then focus on the forest school approach to learning with a view to defining this model, looking at the common threads amongst the literature and suggest potential future research directions.
Chapter 3: Methodology

In this chapter I provide details of the methodology underpinning this research project. I detail the case study method and data collection techniques used to inform the study. I also outline the choices made in regard to my sample group and the case school.

Chapter 4: Results and discussions

My results are presented in three sections:

1. Observations
2. Staff interviews
3. Two student focus groups.

I highlight two particular field observations relevant to themes I was exploring. I provide photographic images to give a visual image of the activity and pictorial representation of the discussion.

For the staff interviews and focus groups I provide an introduction to each section, giving a brief snapshot of the person/s involved to help situate them in the context of the school and the program. I present results of each as themes that emerged from discussions.

Chapter 5: Summary of discussions and conclusion

I draw on the results discussions in chapter four to summarise common threads across the data. I specifically focus on self-esteem and engagement and relationships that may occur within these, as these are the focus of this study. I discuss overall findings and examine new emerging themes. I conclude with suggestions and recommendations for potential future research in the forest school approach to learning in an Australian context.
Chapter 2
Literature review

The literature review examines research on outdoor learning that has been used to encourage children to reconnect with natural settings in their community. Louv (2010) describes this contact with nature as important in maintaining physical, emotional and social health but also in preventing future health problems created by what he describes as nature deficit disorder.

Reducing that deficit—healing the broken bond between our young and nature is in our self-interest, not only because aesthetics or justice demands it, but because our mental, physical and spiritual health depends on it (Louv, 2010, p. 3).

I firstly examine the literature related to why there appears to be a shift from outside play to inside play and the focus on this within the context of learning. In doing so I qualify issues of marginalisation, which are important in regard to the context of the case school. I then examine literature related to issues pertinent to the research’s aims and questions; outdoor learning and the impact on mental health, specifically self-esteem and related concepts such as sense of belonging.

I conclude by examining definitions and differences in outdoor learning and education, with a focus on the specific outdoor pedagogy that the study explored, forest schools.

Why the shift from outside to inside?

In order to reduce the nature deficit that Louv (2010) discusses we must recognise the barriers contributing to the shift from time spent outside to inside. Research (Davis et al., 2006; Humberstone & Stan, 2009; Maynard, 2007) recognises that fear about children’s safety outside and the risk associated with being outside act as barriers to children’s
access to outside play and learning. After-school unsupervised outdoor play has increasingly been replaced by electronic games and activities that can be accessed in the relative safety of the home (Kappos, 2007). In addition, the growing administrative bureaucracy, fear of litigation and lack of support from local school administration, have led to many schools’ reluctance to conduct outdoor learning (Comishin et al., 2004). A combination of these issues I believe results in a decrease in children’s contact with the outdoors.

Waite (2010) considers that a further obstacle contributing to the decrease in children’s participation in outdoor learning is the increasing pressure of national testing placed on schools. Schools are increasingly under pressure to produce results (Waite, 2010) whereby more time is devoted to testing resulting in less time given to other curriculum areas such as physical education and outdoor learning. Perceptions are often that the latter are less academic (Comishin et al., 2004). Hence a decline in outdoor learning opportunities in the curriculum has become evident (Waite, 2010).

In considering the place of outdoor learning in the curriculum the next section will therefore discuss issues of enhancing equality of outcomes through outdoor learning.

Issues of social marginalisation

Social marginalisation involves a set of processes, which results in groups of people or communities being unable to participate fully within our society. The consequences of social marginalisation include lack of equality of outcomes in relation to education, training and employment (Tett, 2006). Smyth, Down & McInerney (2010) contend that issues of social marginalisation and re-engagement are important to enable equality of outcomes in schooling. Students who are not performing become disengaged and this is true of the
disadvantaged (Smyth, Down & McInerney, 2010). There is limited success with policy efforts to improve upon disengaged, disadvantaged students.

*We hear much less about what might be done to make mainstream high schools and their conventional programs more hospitable and engaging to disadvantaged young people before they present among the catastrophic statistics.* (Smyth, Down & McInerney, 2010, p. 71)

Programs that re-engage young disadvantaged people are important in enhancing outcomes. I suggest that one method to encourage engagement and improve future outcomes is through the provision of outdoor learning.

*Causes*

Teese and Polesel (2003) maintain that until curriculum focus changes from its current competitive economic-based structure, cycles of marginalisation will continue. This cycle can be seen in patterns of poor performance in schools resulting in poor results (Tyler, Cuervo & Wyn, 2011). The cycle contributes to young people developing a sense of powerlessness and disconnection, resulting in feelings of alienation and disengagement from school (Teese & Polesel, 2003). This can lead to students dropping out from mainstream education. Teese and Polesel (2003) suggest that young people in this situation are limited in their future life choices and this can result in social marginalisation.

McLeod (2007) argues that children from working-class families do less well in education because parents often do not have the experience of high school and higher education. White and Wyn (2008) support these claims and imply that the social impact of highly concentrated areas of poor housing and lack of employment within a local community can make it even more difficult for individuals, thus entrenching social marginalisation (White & Wyn, 2008;
Wyn & White, 1997). Further to this, areas of marginalisation have been identified as having less natural green space and it is the groups therein who could most benefit from contact with nature (Tovey, 2007).

**How we can combat it?**

Educators could try to combat social exclusion by providing strategies and programs that break these patterns as well as investigating innovative and alternative learning to re-engage disadvantaged groups of students (Swarbrick, Eastwood & Tutton, 2004). The implementation of outdoor learning programs within the local community offer an alternative means of re-engaging these students and giving them a sense of place within their community (Charles, 2009; Davis, Rea & Waite, 2006). This in turn builds confidence and dissipates these feelings of powerlessness and disconnection that Teese and Polesel (2003) speak of.

Considering issues of social marginalisation and re-engagement are important to enable improved equality of outcomes through school. This can be achieved in outdoor learning approaches by promoting positive relational benefits (Maynard, 2007). Knight (2009) supports the notion of positive social relations benefiting through the provision of risk and challenge in learning or play activities outdoors. In turn enhancing learning, motivation, promoting wellbeing and addressing issues of engagement (Knight, 2009).

**Potential benefits of the outdoor environment to mental health**

Maller et al. (2005) suggest that contact with nature has restorative benefits in terms of overall mental wellbeing. This can be achieved by delivering a curriculum building on strength of teacher quality through prioritising self-esteem, identity and group connectedness.
These are key concepts within outdoor learning (Garst, Scheider & Baker, 2001; McLeod & Allen-Craig, 2007).

Building group and interpersonal skills early helps to boost self-esteem and coping skills and hence reduce the risk of future difficulties (Ekeland et al., 2004). McGorry (2007, cited in Doley, 2008) discusses the negative impact on mental health problems and poor educational achievement. He concludes that these can limit a person’s feeling of being a part of their community (McGorry, 2007 cited in Doley et al., 2008). This link is supported by Wyn’s research (2009) that suggests low self-esteem and an increase in mental health problems can disconnect a person from their community. This can be isolating and then in turn lead to increasing mental health problems. These are significant issues, particularly with the increase in reported mental health problems in young people today (Wyn, 2009; Patton et al., 2003).

Outdoor learning is an alternative means of tackling the issues associated with low self-esteem and increasing mental health problems. Improved self-esteem and developing a sense of belonging are a major focus in outdoor learning (Allen-Craig & Miller, 2007; Davidson, 2001; Garst, Scheider & Baker, 2001; Knight, 2009; Maller, et al., 2005; Swarbrick, Eastwood & Tutton, 2004). This is of particular importance within disadvantaged groups as;

*Strengthening the social bonds between residents can be an important first step in minimizing the harmful effects of disadvantageous social and economic conditions* (Vinson, 2007, cited in Smyth, Down & McInerney, 2010, p. 18).
Curriculum approaches that aim to link outcomes relating to sense of self, engagement and emotional wellbeing to the outdoor environment further increase the benefits to young people in disadvantaged backgrounds.

**Sense of belonging and connectedness promoted through outdoor learning**

Research has shown that if you can make children feel they belong at school they are much more likely to succeed there (White & Wyn, 2008). Outdoor approaches to learning support the promotion of a sense of self, belonging and connection with community. Charles (2009) highlights the importance of the creation of a sense of place that outdoor learning and experience with nature can create. She suggests that a bond with nature can lead to young people having a deeper understanding of the world as a whole (Charles, 2009). The failure of curricula to facilitate this deeper understanding can ‘lead to a lack of passion towards earth in general (Charles, 2009, p. 470).

The concept of reconnecting with nature has gained international support (Charles, 2009; Knight, 2009; Louv, 2010; Maller, et al., 2005). It reveals that alienation to nature is a worldwide phenomenon and is important in the consideration of the place for outdoor learning. Students who participate in outdoor experiences with connections to school grounds and community have a greater sense of belonging (Maller et al., 2005). This in turn creates community cohesion through inclusion and connection resulting in an increased sense of belonging and promoting a positive attitude to self and neighbourhood (Charles, 2009).

Shaping identity, building self-esteem and creating caring environments are concepts important in creating a sense of belonging (Teese & Polesel, 2003). Outdoor learning creates solidarity between staff and students, which in turn promotes a caring school community impacting positively on people’s sense of belonging and group identity (Teese & Polesel,
2003). A sense of belonging that can evolve through outdoor learning over time provides further opportunities to engage students and recapture their enthusiasm for learning (Charles, 2009; Maller et al., 2005).

The outdoor experience and engagement

According to educational theorist Eleanor Duckworth, (Bobilya & Daniel, 2011) learning experiences for students should;

> Foster an environment where students engage in learning, the teacher must provide occasions where surprise, puzzlement, excitement, patience, caution, and honest attempts and wrong outcomes are seen as legitimate and important elements of learning (Duckworth, 2006, cited in Bobilya & Daniel, 2011, p. 78).

Davidson (2001) suggests that outdoor learning can ‘enhance the capacity to enjoy and engage in living’ (Davidson, 2001, p. 13). This results in students experiencing a sense of enjoyment from the challenges, freedom and social interactions gained through outdoor learning experiences (Davidson, 2001). The students are more engaged as a result of the elements of self-discovery, challenge and risk the outdoor setting provides.

Mygind (2009) also identifies an improvement in friendships and social relations through outdoor learning. Mygind suggests that engagement is greater in a nature setting than in the classroom, due to less boredom. Using a survey repeated in both the class and nature setting each week Mygind compares levels of engagement in each context. The results exhibit a more caring and positive environment created through social relationships formed in the nature setting (Mygind, 2009).
Further details of how engagement can be affected by outdoor learning will be discussed in relation to specific forest school approaches to outdoor learning later in this chapter.

**Outdoor pedagogies, definitions and differences**

*Definitions*

Outdoor pedagogies look at possibilities of learning beyond the boundaries of the classroom (Maller et al., 2005; Swarbrick et al., 2004). Outdoor learning is often defined as outdoor education and identified as utilising the outdoors to promote educational and behavioural changes and development (McLeod & Allen-Craig, 2007). Some researchers further define outdoor learning as occurring anywhere outside of the classroom or in natural settings, where there is an impact from being outside and in the natural world (Davis Rea & Waite, 2006; Knight, 2009).

Gair (1997) reminds us that definitions of outdoor learning can be quite broad and encompass activities providing adventure and challenge to those creating an awareness of the environment and self. There is a correlation with contact with nature and positive physical, social and emotional wellbeing as well as improved cognitive development (Karppinen, 2011; Knight, 2009; Maller et al., 2005). This is important when considering strategies of how to address the mental health concerns within the Australian population in particular groups identified as disadvantaged. The common aims and outcomes of outdoor learning approaches can be summarised as:

- Improving self-esteem, with a flow-on effect of self-concept and self-perception (Allen-Craig & Miller, 2007; Davidson, 2001; Garst, Scheider & Baker, 2001; Knight, 2009; Maller et al., 2005; Swarbrick, Eastwood & Tutton, 2004).
• Improving academic and cognitive development (Charles, 2009; Mygind, 2009; Karppinen, 2011).
• Pedagogy that develops the whole person both socially, emotionally, physically and academically (holistic teaching method) (McLeod & Allen-Craig, 2007; Davidson, 2001; Karppinen, 2011; Waite, 2010; Maller et al., 2005; Smith & Knapp, 2011).

Indicated outcomes are common among the claims of many outdoor learning programs. Brookes (2004) argues that such broad aims and outcomes can result in marginalising the benefits and capacities of outdoor learning theories. There is a need for clear definitions and understanding of these for the quality of work to be beneficial, particularly in relation to self-esteem and related concepts (Brookes, 2004; Davidson, 2001; Maynard, 2007).

Differences
The impact of different types of outdoor learning programs has been the focus of many studies. These vary from discrete residential programs held away from school to continuous programs based in school or in a local forest or nature setting. Maynard (2007) and Knight (2009) suggest that the shorter discrete outdoor learning programs, the more limited the impact in relation to outcomes, particularly self-esteem. Knight (2009) emphasises that short programs, particularly one-off experiences rely on participants’ memory of the experiences as the catalyst for future changes beyond the program.
In a study conducted by Hattie et al., (1997) that analysed the impact of outdoor adventure programs, no school-based programs were included. They claimed these have less challenging experiences out of the classroom (Hattie et al., 1997). However research conducted by McLeod & Allen-Craig (2007), among others (Davidson, 2001; Garst, Scheider & Baker, 2001), of school-based outdoor programs has indicated that they have the potential to provide considerable opportunities for personal growth. Davidson (2001) maintains that school-based programs can promote afore mentioned outcomes and aims. One finds that the challenges may be as simple as having free time and making decisions on how to use this or by simply being in a new environment, outside, which motivates and engages students; ‘A sense of freedom and the opportunity to choose to participate made outdoor education appealing to these students’ (Davidson, 2001, p. 18).

The age of participants is also a determining factor in the extent to which goals such as improved self-esteem and social and emotional development are achieved. McLeod and Allen-Craig (2007) suggest that programs tend to be aimed at the adolescent age group, due to the physical, social and emotional changes young people are experiencing at this stage of development. For example this age group is often at their lowest point of self-concept and so programs are an important focus to enable behavioural change and to foster positive self-esteem (McLeod & Allen-Craig, 2007). However, Waite (2010) supports the provision for outdoor learning programs earlier, in the primary school, as do Maller et al., (2005) who consider outdoor pedagogies as a form of prevention and health promotion, giving students increased ability to cope with the changes experienced during adolescence.

In considering the impact and quality of outdoor programs, the current research supports the need for clear definitions and understanding of program aims and expected outcomes.
(Davidson 2001; Brookes, 2004). There are a number of differences between programs for example: the context of the program, its duration and the age group focused on. One particular outdoor pedagogy that will be defined and reviewed in more detail in the following section is the forest school approach to learning.

**What are forest schools?**

*When children go down to the woods or fields, will their experience be signed, led, guided, planned or programmed? Or will it be a spontaneous exercise of connection between the land, the water, and their own imagination, with all the chance in the world to simply be...?*


Forest schools utilise natural settings that have no distinct boundaries, incorporate free play and direct experiences in nature to promote the connections described in Pyle’s quote (above). A forest school is an educational approach to learning facilitated through outdoor experiences (Knight, 2009). These experiences include outdoor play and learning beginning in the school grounds and occurring regularly during the school term.

The aims of forest schools are to develop:

- Self-awareness
- Self-regulation
- Intrinsic motivation
- Empathy
- Good social communication skills
- Independence
- A positive mental attitude, self-esteem and confidence

(Archimedes Training, 2011)
These aims are important as they relate to areas of concern in regards to mental health as outlined by the AIHW (2010). The program’s aims align to definitions of mental health in providing students with an opportunity to enhance social relations, emotional development, and student engagement through interaction with each other and the environment. Mental health is defined as,

*The capacity of individuals and groups to interact with one another and the environment, in ways that promote subjective well-being, optimal development and the use of cognitive, effective and relational abilities.* (Commonwealth Department of Health and Aged Care and Australian Institute of Health and Welfare, 1999, p. 5)

The program is delivered within the school grounds and moves on to local woodland or open space. This endows children with confidence, familiarity and awareness of the outdoors. Exploring woodlands and local settings not only encourages social learning, but also offers a sense of community connectedness (Davis, Rea & Waite, 2006). Forest school programs as discussed by Davis, Rea and Waite (2006) do this through learning about the local areas that the children live in. Once established children learn to negotiate boundaries within that setting. As the program evolves children are given more independence and learning becomes more child-centred and child led (Archimedes Training, 2011).

Knight (2009), among others (Maynard 2007; Swarbrick, Eastwood & Tutton, 2004) explain that forest schools normally run continuously over a relatively long period of time, typically for a minimum of 10 weeks or alternatively once a week over three years, with classes held in the forest setting for 20 per cent of the time (Mygind, 2009). Schools that incorporate a forest school approach are facilitated either by qualified staff or by independent providers. The forest school pedagogical model adopted in the United Kingdom evolved from the Danish model of ‘nature kindergartens’. Similarly Brookes (2004) likened the forest school
model to the early childhood education models of Sweden, where children spent as much school time as possible outside for the delivery of the curriculum.

The forest school offers an alternative way of delivering the curriculum and embedding outdoor learning pedagogies into the whole school’s education framework, teaching curriculum areas within the surrounds of the forest or outdoor class and in the context of the natural environment. Davis, Rea and Waite (2006) support this strategy and suggest teaching across the curriculum in other discipline areas, within the forest setting as a further option when structuring a forest schools program, in a primary school setting. Activities within the program are not limited but can range from creating shelters or dens, traditional forest tool use, games, free play, flora monitoring and local ecology, to creative art and literature (Archimedes Training, 2011). The use of tools and creating shelters are examples of activities that use elements of trust and teamwork to achieve program aims.

Davis, Rea & Waite (2006) describe forest schools as providing enjoyable learning environments and claim that these initiated learning and motivation. They expanded on this suggesting that the outdoor environment gave children the opportunities to take risks and to establish positive relationships with teachers and each other. There is strong support for the positive relational benefits for both students and between student and teacher relations in the forest school programs (Charles, 2009; Davis, Rea & Waite, 2006; Knight, 2009; Maynard, 2007; Mygind, 2009).

The approach is further described by Knight (2009) who outlined the ethos of the forest school approach and linked this to theories of learning by reporting numerous case examples and contextualising the United Kingdom and Scandinavian standpoints. She notes that the
two models were quite different and attributes this to the cultural differences between the two nations, particularly the amount of open space in Scandinavia as compared to some parts of the United Kingdom. Knight (2009) focuses on the early years of kindergarten to five years of age, and how natural out of doors experiences were facilitated in the United Kingdom. Knight (2009) believes that being outside with the freedom to play and explore gives children space and elements of risk to promote relationships and physical activity, which in turn enhance development and learning, which echoes the claims by Davis, Rea and Waite (2006). Knight (2009) argues that allowing children to take risks gives them the opportunity to make choices and understand consequences of their actions, giving them the chance to learn how to evaluate risk and build confidence. Free play is an important part of the forest school session where children have the opportunity to explore and face new challenges.

Our research reinforces this view; we found that Forest School supported free play where imagination and exploration of nature and interpersonal and intrapersonal responses to nature flourished (Davis et al., 2006, p. 8).

Common threads amongst the literature

Davidson (2001) suggests that free play gave students the opportunity to have choice and become self-motivating explaining that a risk or challenge such as climbing a tree allows children to learn to gauge their limits and build self-confidence. Davis, Rae and Waite, (2006) maintain that no set syllabus is required, instead a focus on fostering positive relations, should be employed.

Maller et al., (2005) explain that using local parks within the community familiarises people with their local area and encourages further use, giving a better connection to their community. Charles (2009) also argues that a bond is created with nature and a particular
place, deepening connections to the natural surrounds and thereby increasing sense of belonging, promoting positive attitudes to self and neighbourhood.

White and Wyn (2008) consider a connection to the environment as important in gaining a sense of place and in turn a sense of belonging. Similarly, Maller et al., (2005) indicate that students who participate in outdoor experiences with connections to school grounds and community have a greater sense of belonging. The forest school approach is based within the school grounds, extending to local forest or woodland settings, encouraging natural play and learning areas in both school grounds and the local area. Therefore the forest school approach to learning has the possibility of doing what White and Wyn (2008) and Maller et al. (2005) suggest it might; offering an opportunity to find a sense of belonging and sense of place.

The approach is principally focused on the primary school years, although parallels can be drawn with Canadian integrated programs in secondary school considered by Comishin et al. (2004). Comishin et al. (2004) describe these secondary programs as teaching core subjects such as Maths and Science for example, and other compulsory curriculum areas within the surrounds of the forest or outdoor class and in the context of the natural environment.

**Research into forest schools**

Knight (2009) highlights that forest schools have many positive impacts such as: an increase in self-esteem and self-confidence; enhanced connection to the local environment; more positive relations amongst participants; and improved understanding of the outdoor environment. Knight (2009) contends that the factor underpinning improved self-confidence is the sense of freedom experienced by the children.
Davidson (2001) highlighted the term *freedom* and *positive freedom* in her qualitative case study of boy’s experience of outdoor learning at school. She sees both terms as important components of building self-confidence. *Positive freedom* is a participant’s understanding of the determinants that make them feel good, thus eliciting positive feelings created from the freedom given. The determinants identified are motivation, perseverance, friendship and responsibility. In addition *freedom* is reported as a sense of feeling free to choose, making choices in regard to how to spend unstructured or free time and thus giving rise to spontaneity. The sense of freedom experienced in the forest schools may therefore be contributing to building self-confidence and self-esteem.

More recently Karppinen’s (2011) qualitative research into a forest school program also showed participants expressing the feelings of freedom described by Davidson (2001). Karppinen’s (2011) action research project was conducted over one year and found students’ physical condition and skill improved along with increased confidence.

The forest school approach allows for different learning styles through a variety of activities in a space less defined than a classroom setting (Davis, Rea & Waite, 2006). Davis, Rea and Waite (2006) explain that the provision of space is of benefit particularly to those who find the classroom constricting. The additional space and less obvious boundaries of the outdoor setting help children learn to negotiate and co-construct boundaries, thus gaining self-confidence. It is implied by Davis, Rea and Waite (2006) that catering for the different learning styles of children is important in giving them the opportunity to gather information and process this to maximise learning.

They also highlight the opportunity that the forest school program offers young people, in terms of learning to live with others and to be themselves. Mygind’s (2009) research
corroborates these earlier findings and he claims that increased involvement and engagement has had a positive effect on children’s social relations. Mygind’s (2009) study was based on a Danish forest school approach to learning whereby classes were held in the nature setting for 20 per cent of teaching time. The study was conducted over a three-year period where students felt more active and established better social relations in the setting of the forest. This was demonstrated by students being less disruptive and getting along more in the forest setting than at school. Similarly, Swarbrick, Eastwood and Tutton, (2004), highlight links to engagement that bring back enthusiasm to students at school, providing benefits in the real-life context of lessons.

Maynard (2007) also finds that self-confidence is encouraged when children are provided with an opportunity to achieve success through risk-taking and when children have free time to play. Tovey (2007) expanded on this by explaining that the notion of play in this approach allows children to have more scope and more space in a more unpredictable environment making the play space exciting and engaging to children as well as increasing their physical activity at those times. This reinforces Davidson’s (2001) conclusions that improved self-confidence results through building a sense of achievement and sense of freedom.

Many of the scholarly articles acknowledge limitations of the research primarily in relation to the principal researcher holding a key role in the organisation and facilitation of the program. Swarbrick, Eastwood and Tutton, (2004) remind us that there is a need for impartial research. It is suggested that future research be conducted from the stance of an outsider to the forest school program to minimise inquirer effect or bias (Davis, Rea & Waite, 2006; Karppinen, 2011; Swarbrick et al., 2004). This, according to Patton (2002) would strengthen validity and balance findings and interpretations. Yet, Patton (2002) also argues it is almost impossible to
achieve impartiality as all researchers bring their own interpretations about issues they are studying. Impartiality can be decreased if these interpretations are made clear prior to the commencement of the study (Patton, 2002). Karppinen (2011) acknowledges his personal subjectivities and is explicit in his reporting, thereby establishing credibility and trustworthiness.

From the literature reviewed here it is evident that a sense of freedom is a key concept evolving from experiences in a forest school and outdoor learning program. Freedom is considered as being a contributing factor in increased self-confidence, positively impacting on self-esteem. However, it is also clear that there is a need for more effective measures of self-esteem and engagement in order to justify implementation on a broader scale. Davis, Rea and Waite (2006) point out that although a small number of cases were used (which were neither representative nor comparable with other schools or centres), their study still highlights what environmental awareness and pedagogy the forest school approach offers. Further to this, Mygind (2009) offers insight into expectations when implementing nature programs. He claims, ‘that nature has an independent importance for the children, but it is not possible to precisely express to what degree’ (Mygind, 2009, p. 167).

**Concluding thoughts**

To date, the literature’s main focus is on the broader effects of outdoor learning. Many studies focus on discrete outdoor programs based away from the school environment (Allen-Craig & Miller, 2007; Hattie et al., 1997; Humberstone & Stan, 2009; McLeod & Allen-Craig, 2007). These discrete programs generally involve secondary school students, and the studies, in the main, employ quantitative methodologies.
Residential programs can be seen as one-off experiences that are generally aimed at older children. Hattie et al., (1997) report effectiveness improving based on the length of program and support longer-term programs. However, Knight (2009) suggests the impacts of these experiences rely on the power of memory to carry the students forward in feelings of self-esteem and other benefits. She believes that changes in self-esteem through involvement in a forest school program are more a result of continuous and repeated experiences over time (Knight, 2009).

Definitions and ranges of descriptions for self-esteem and self-concept vary considerably amongst papers. There is a gap in the literature in terms of qualitative data from researchers of self-related concepts that arise from the perspective of the participants. In addition, more research is needed in terms of clear definitions and measures (Brookes, 2004). Research that explores the concepts and themes that arise in regard to self-esteem and self-confidence may give us a clearer understanding of these definitions and provide answers to more sound means of measuring these.

The review of the literature found few qualitative approaches in methodology and Garst, Scheider and Baker (2001) note that when measuring self-esteem, it is better to examine the nature of the participant’s experience and the whole program experience using qualitative methods (Garst, Scheider & Baker, 2001). Both Davidson (2001) and Karppinen (2011) support this notion, concluding that qualitative research is valuable in assessing the benefits of outdoor learning and outdoor education programs.

Overall specific studies on the forest schools approach are few. In addition these studies suggest there is a need for more research that is not carried out by the forest school teacher or
leader who becomes a participant in the study (Swarbrick, Eastwood & Tutton, 2004, p. 144). Karppinen (2011) acknowledges this can weaken reliability of findings. Davis Rea & Waite (2006) support the need for more external research to contribute a more impartial viewpoint.

Furthermore, the majority of the studies directly relating to forest schools are focused within the context of the United Kingdom (Davis, Rea & Waite, 2006; Maynard, 2007; Murray, 2004, Murray & O’Brian, 2005 cited in Knight, 2009; Waite, 2010). It is not yet known what further adaptations may be relevant within the Australian context with our different cultural, social and environmental conditions. In addition, many of the forest school studies focus on the early years (Davis, Rea & Waite, 2006; Maynard, 2007). Within the literature reviewed, two studies with a forest school setting had middle to upper primary school-aged participants (Karppinen, 2011; Waite, 2010).

Alternative pedagogies, which promote inclusiveness and caring environments, are only a part of the solution. Teese and Polesel (2003) support the need for more research to build the social and cultural capital of these groups in order to give them greater equity. McLeod and Allen-Craig (2007) support further research drawn from a more diverse group of socio-economic background. Further to this Brookes (2004) notes that many studies’ participant groups have a high socio-economic background. These groups are generally high in educational outcomes and Brookes (2004) suggests that this raises the need for further research within marginalised groups. Disadvantaged, rural and remote groups are of concern in terms of Australia’s health and wellbeing (AIHW 2010), and the need to explore strategies that can address issues of marginalisation and mental health warrants further investigation.
This literature review has drawn attention to research related to outdoor learning pedagogies and more specifically forest schools. Insights are offered as to the significance of the impact on these programs. Links to marginalisation and the use of such pedagogies to tackle issues of social marginalisation have been discussed. Further investigation into students’ experiences and perceptions of outdoor programs is suggested.

There is little evidence evaluating the impact of curriculum-based programs in the context of a regional primary school in Australia for children aged 10 to 11 using a forest school approach. The focus on early years again builds a case for a study in the Australian context, with children in the middle and upper primary school years. An Australian forest schools study will further inform this approach to learning, providing a greater understanding of its impact within the context of Australian schools. The proposed research will address these issues by exploring the impact of a program in an upper primary school in a marginalised, regional setting in Australia.

Focusing on upper primary school participants targets the gaps in this age group seen in the literature reviewed. Further to this, concerns of impartiality suggested by Davis, Rea and Waite (2006) and Swarbrick, Eastwood and Tutton (2004) will be addressed by research being conducted by a person not connected to the program. In addition a qualitative methodology will inform the research to provide a greater understanding of the nature of the participants’ experience, and the whole program experience, as supported by Davidson, (2001); Karppinen (2011) and Garst, Scheider and Baker, (2001).

The potential the forest school pedagogical approach may have in enabling learning and promoting engagement and wellbeing in the context of Australia, requires more exploration.
Such a program as the forest school approach includes a whole-school community, bringing the natural world to the children by creating natural settings and play areas within the school grounds. Extending these play areas to local community parks and reserves to give children the benefits of contact with nature can provide and giving them a breath of fresh air.
Chapter 3

Methodology

In this chapter I will discuss my chosen methodology and the theoretical underpinnings that guided my case study method. I will then discuss methods of data collection, data analysis, sample group, ethical issues and strengths and weaknesses within the research.

Qualitative case study approach

Since my research aims were to explore emergent themes and the impact on self-esteem, sense of belonging and student engagement in the natural setting of the forest, I considered that the most appropriate research style to adopt would be qualitative. My research aims were to develop an understanding of the experiences, behaviours and interactions of participants in the case school in regard to impact on self and engagement. Fossey et al., (2002) argue that a qualitative methodology supports these aims.

Further, the small sample size of the participant group and the nature of the activities are, as suggested by Cresswell (2003), characteristics that further supported the suitability of my chosen method, a case study design. In order to obtain greater understanding through the participants’ perceptions, a case study of a single school was chosen, whereby I examined an outdoor approach to learning that was delivered in a regional primary school in Western Australia (WA).

A post-structuralist framework informed the methodology. This theory attempts to rethink the dynamics of social relationships (e.g. between staff and students) and their interaction with
the natural environment. This allowed for the development of a methodology that provided a
greater depth of understanding of the data and suited the research questions, relating concepts
of sense of belonging, self-esteem and social interactions of participants. Further, research
aims were to explore the perceptions of the participants’ sense of belonging and social
interactions with each other, as well as to the natural world, which align with post-
structuralism.

The qualitative case study approach brought together a collective collage to build a picture.

_A series of representations, including field notes, interviews, conversations, photographs,
recordings, and memos to the self… to make sense of, or interpret, phenomena in terms of
meanings people bring to them_ (Denzin and Lincoln, 2005, p. 3).

As a result, I am given a view of the students’ perceptions of the learning process of the
outdoor, forest school approach to learning in the school context. This positioned me into the
setting of the case school and fostered understanding of the forest school approach’s impact
and meaning to participants, a key aim of the research.

Grounded theory guided the research otherwise described as patterns of theory as suggested
by Denzin and Lincoln (2005). I discovered patterns of themes that became apparent in the
course of the study and interpreted these in analysis. Fossey et al., (2002) also describe this
process as ‘theory building through discovering patterns and connections in qualitative data’
(Fossey et al., 2002, p. 24).

The following section discusses the case study method and how it aligned with the research
aims.
Intrinsic case study

A case study is expected to catch the complexity of a single case. A single leaf, even a single toothpick, has unique complexities (Stake, 1995, p. ix).

A case study method was an advantage in this research project, particularly when research aims as discussed in Chapter 1, ‘are understanding, extension of experience and increase in conviction in that which is known’ (Stake, 1978, p. 6, cited in Kervin et al, 2006, p. 70). The case study was informed through data collected and grounded in the analysis, as discussed by Denzin and Lincoln (2005).

According to Stake (1995) a case study can be intrinsic or instrumental. This he implied is determined by the emphasis on the issues of the case (intrinsic) or the case itself (instrumental). This particular study was an intrinsic case study. I believed that by exploring emergent themes and points of interest from within the case school rather than specific issues being the dominant focus of the study, this case study was intrinsic in nature as suggested by Stake (1995) and Punch (2009).

In understanding the case and gaining insight into the forest school approach, I have an intrinsic interest in it. The intrinsic case study provided a good opportunity to highlight a project’s success or difficulties, describing what happened to participants and consequences, within each group (Neale, Thapa, & Boyce, 2006).

Educational case study research is concerned with the development and understanding of pedagogy and curriculum strategies (Gomm & Hammersley, 2000). Capturing the unique character of the school and its development of a specific alternative pedagogy directly,
related to my research aims outlined in Chapter 1, particularly in reference to increasing understanding and raising awareness of the specific outdoor pedagogy.

The study is bounded by the physical context of the single case school and the surrounding nature reserve. It is also bounded by the characteristics of the group participating in the forest school sessions and the general school population during visits.

Advantages and disadvantages of the case study method

One cannot make assumptions as to the generalisability of this approach, however, the findings have the potential to increase knowledge within this case context, adding experience and improving understanding as suggested by Stake (1995). Stake terms this as particularisation rather than generalisation, getting to know a particular case well in its unique setting. This can be a valuable insight for the case school itself in future developments of its program.

This case study involved a collection of descriptive data about participants’ experiences from a particular institution, who participated in a specific outdoor learning strategy. To achieve this I employed a number of data collection techniques discussed in the following section.

Data collection

I chose a number of methods for data collection. I did this in order to provide myself with a range of perspectives from staff and students. Fossey et al., (2002) argue that this adds strength to the quality of the research, as it is consequently informed with a greater breadth of knowledge and depth of understandings through drawing on different perspectives.
I decided to use four methods of data collection to draw on the perspectives of both students and staff:

1. Participant observation
2. Focus group discussions
3. Semi-structured interviews
4. Photo image analysis

Participant observation was included as it gave me insight into the context of the school and the program both within the school grounds and in the forest school setting. Staff involved in the case school’s forest sessions were interviewed individually with semi-structured interviews. Focus groups with students who were a part of the class group participating in the forest school sessions were used to gain insight into the students’ thoughts and feelings towards issues that arose during the course of the research. Additionally some photographic images were used in the form of a visual representation of some spaces and activities analysed in results from my observations. Details regarding these data collection methods and their suitability follow.

1. Participant observation

*Observations work the researcher toward greater understanding of the case* (Stake, 1995, p. 60).

Participant observation is described as observing participants in the natural environment where they are occurring (Cohen, et al., 2000). Descriptions provided through unstructured field notes and narrative field notes helped me to paint a picture of the setting, the case school and strategies employed. These included observations of the class involved in the half-day forest session away from the school, in the local nature reserve. I would walk with the
students to the reserve and participate in games and activities, listening and talking with students during the time there. I would return to the school and write my observations in narrative form in my field journal. Observations also included unobtrusive observation of the whole school during lunchtime playtime. Observations of behaviours: free play; interactions amongst participants; and involvement in activities comprise the data that I recorded in my field notes, which gave me descriptive knowledge of the outdoor strategies and use of the grounds as they developed in the case school.

Observations began in the weeks leading up to the focus group session in order to have time to establish a rapport with the group and develop cooperative relationships, which, it is argued, enhanced the quality of the data collected (Kawulich, 2005).

Popay et al., (1998, cited in Fossey et al., 2002) support the notion that participation may vary between visits however some degree of participation and ‘persistent engagement are essential if the complexities of meanings and situations are to be adequately explored and uncovered’ (Popay et al., 1998, cited in Fossey et al. 2002, p. 727).

Advantages and disadvantages of participant observation

Participant observation was helpful in my understanding of the physical context of the case school, particularly as the natural setting of the nature reserve and school playgrounds were used in the program I was observing. Patton (2002) suggests participation and interaction with the participants helps to capture the context, and is useful in understanding the relationships, interactions and social world of the case school as supported by Fossey et al., (2002). Such a holistic approach is reflective of single case study design (Yin, 2009). Further, Stake (1995) suggests that physical space is fundamental to deepen understandings, true of
intrinsic case studies, and requires more attention to detail, which I could gain in participant observation. The descriptive data collected supported the intrinsic and interpretive approach to this particular case study. Having first-hand experience with the setting, people and activities, enabled me to learn things that may not have been brought up in focus group discussions.

Looking through a researcher’s and outdoor education teacher’s lens, I needed to be aware of my own biases when recording observations. I needed to take care to record the whole scene, looking through the eyes of an outside researcher. DeWALT and DeWALT (2002, cited in Kawulich, 2005) suggest that researchers need to be aware of these biases when collecting data and that interpretation may affect observations. In order to avoid this I employed more than one technique to collect data. In addition, I reported two participant observations that I had recorded and that staff had discussed separately in interviews. This I believed added strength to observations and limited my own bias.

2. Focus Groups

Focus groups are a form of group interview with a central topic as the main goal, facilitated by the researcher (Cohen et al., 2000). These discussions move from a broad-based introduction and open-ended question to a focal point or key question. This allowed for the conversation to flow in order to limit my own opinions in discussions.

The views of the participants emerged through interaction with each other rather than interaction with the researcher (Cohen et al., 2000). Krueger and Casey suggest ‘Words of the participant are used to find participants’ feelings, thoughts or observations about the topic of
discussion’ (Krueger & Casey, 2009, p. 202). This was particularly relevant to my research aims (Chapter 1).

How I conducted the focus groups

Groups consisted of four children per group randomly chosen from within the class participating in the forest school afternoon sessions. This selection was employed to maximise success, as suggested by Cohen et al., (2000). Two focus group sessions of one hour each were conducted with student participants towards the end of the project. Conducting the two focus groups towards the end of the project allowed time for a rapport to develop with myself as facilitator. Noble-Carr (2006) agrees that more than one session also allows for developing trust and a deeper exploration of experience.

Creative strategies were used to encourage engagement in focus groups, particularly as these were involving children, as suggested by Noble-Carr (2006). A description of these strategies is outlined below.

Session 1

*Mind map:* Visual depiction of how students felt, perceptions about the forest school program and the nature reserve afternoons. I used visual prompts of photographs of the reserve to encourage discussion.

*Rating items:* I gave students categories relating to the forest reserve topic above: a) positives; b) negatives and c) interesting. They then categorised their main points from the mind map, prompting further discussion.
Session 2

I took the children outside and they drew a map in the sand of their journey to the forest reserve, walking from school to the forest setting. They then talked about their maps and experiences. These formed the basis of discussion.

Advantages and disadvantages of focus groups

Focus groups can give us ‘rich understanding of people’s lived experiences and perspectives, situated within the context of their particular circumstances and settings’ (Freeman, 2006, p. 491). This fits with the interpretive approach to the case study design, allowing for the collection of more in-depth data.

When working with children, focus groups are said to be less intimidating than individual interviews (Cohen et al., 2000). ‘As with all these participatory exercises, the benefit is in the discussion following the picture drawing’ (Krueger and Casey, 2009, p. 45). This was true of both my activities and I found by running two different activities, individual differences were allowed for.

Fossey et al., (2002) also suggest focus groups are useful when working with marginalised groups as participants feel more comfortable talking with others who share similar experiences. However, in so doing it was unavoidable having friends within those discussion groups at times, which Cohen et al., (2000) suggest can limit success. Further, focus groups can be influenced by strong personalities within the group and this can be another disadvantage (Neuman, 2000). I found due to the time of the research (fourth term) more than often a group of two children were the sum of my focus group. However, I found this to be more personal and students gave greater depth in discussions than the larger group.
The focus groups’ social setting can affect answers (Neuman, 2000). Discussions were held in a closed conference room, an environment that was perhaps not comfortable for the students. I noticed this in the case of Tim and Ian’s focus group (Chapter 4, section 6). They appeared quiet and not very responsive until I moved the discussion outside to a section of logs. The boys then appeared to be more comfortable and began to talk more openly. This unintentional error can be a disadvantage of conducting focus groups.

3. Semi-structured interviews

A semi-structured interview consists of a schedule of open-ended questions that allow for expansion of discussion and new directions of discussion (Cohen et al., 2000). It is characterised by having an interview guide, comprising a list of questions to be covered during conversation (see appendix (1) for interview guide).

The semi-structured interviews were conducted with staff, following observations, toward the end of the project. This gave me time to allow for better understanding of the context of the case school and topics. It also provided opportunity of other ways of seeing and hearing the voices of participants that may not have appeared in observations.

Advantages and disadvantages of conducting semi-structured interviews

There were some specific topics I wanted to explore in the interviews and by employing a semi-structured interview I could hear participants’ stories as they arose. The semi-structured interview allowed for more flexibility and was more ‘conversational in manner’, (Fossey et al., 2002, p. 727). It also allowed for participants to express their views on their own terms and helped to explore topics not uncovered through observations.
Interviewing staff individually, I recognised that the interpersonal dynamic between staff could influence data as suggested by Hennink, Hutter and Bailey (2011). The three staff members interviewed had very different roles in the school, a class teacher, a school chaplain and a key leader within the school administration and facilitator of the program. I felt that individualising the interviews gave the participant freedom to express thoughts and feelings on discussion topics and catered for sensitivity to the staff’s social dynamics. Additionally, I believed my involvement as a participant in forest sessions helped this process as I felt a rapport had developed through interviewing the staff and rendered this process more comfortable.

However, Dowling and Brown (2010) mention some disadvantages of this method of data collection. As the semi-structured interview resembles a conversation it can therefore be time-consuming. Transcribing interviews can also be a lengthy process.

Lastly, a disadvantage in one of my interviews may be perceived from my relationship with one of the interviewees. I needed to be clear in my role as researcher and ensure I established boundaries with regards to my professional role in the research from the onset as suggested by King and Horricks (2010).

4. Image analysis

Audiovisual materials such as photographs were used to provide a realistic representation of the site and grounds in the context of the outdoors. Stake (1995) suggest that these show the uniqueness of a case.
I used still photographs to give a snapshot of the school grounds, the forest setting and the activities that were the focus of the research. I utilised these alongside my field journal to further add to the context of the setting and visually describe it. Keegan (2008) suggests photographs could serve as a stimulus for discussion. In the focus group sessions photographs of the outdoors reserve, where forest school afternoons were held, were shown to prompt discussion and introduce the topic in a visual form.

Advantages and disadvantages of images in analysis

Photographs can capture reality in a visual medium (Creswell, 2003). Photographs of shelters and cubbies built ‘complement the spoken word and often enable a richer, more holistic understanding of research participants’ worlds’ (Keegan, 2008, p. 619).

Photographs in this study helped me to provide visual evidence of: activities in free play; the use of space; and outdoors in the school grounds. Emmison (2004) argues that photographs are an advantage in understanding spatial considerations and influence. I believed this was relevant to the use of space in the outdoor sessions and during free play at school. The photographic images therefore complemented field notes, as suggested by Emmison (2004). However, in order to do this effectively a verbal account accompanying the photo would create more perspective as seen by myself, the researcher, as suggested by Keegan (2008).
Sample

In this study I have employed targeted sampling, a technique often used in exploratory research (Neuman, 2000). Patton (2002) suggests that targeted sampling often used in a case study gathers ‘information-rich cases from which one can learn a great deal’ (p. 242). Further to this, Neuman (2000) points out such samplings are used when ‘selecting members of a difficult to reach specialised population’ (Neuman, 2000, p. 198), who I believe reflect marginalised communities as identified in the case school.

The sample could be said to be a convenience sample. Patton (2002) states this can be a weakness in research. However, I believe this was not the case; the sample was targeted due to its establishment of the forest school approach to learning that this study was investigating. Therefore I believed the site and sample group to be one that could provide in-depth information in exploring the impact of the program and participants’ perceptions therein. The literature reviewed established there were few programs that enable us to gain insight into the forest school model in an Australian context. Patton (2002) states that such sampling can increase credibility of results.

Participants comprised students from a year 5/6 class who spent an afternoon each fortnight for a term outside in a local nature reserve. This class was selected as the project was run with this specific group in its first year. Focus groups consisted of groups of four all from the year 5/6 class of 25 pupils. Homogeneous group sampling within the case involved the group of students with a common experience of the forest school program. Patton claimed this can reduce variation and facilitate group interviewing (Patton, 2002).
Data Analysis

Analysis of data occurred constantly as data was collected. Constantly reviewing and reflecting on my field notes I was able to identify and describe patterns of categories that seemed to fit into like themes. At the same time I was open to new issues arising.

In my field notes I highlighted sentences and paragraphs that appeared as particular concepts. I would then clump these into groups that appeared to be related to a central concept or that had similarities in themes as suggested by Davis and Meyer (2009).

I listened to recordings of interviews and focus groups and compared these with transcriptions to ensure they reflected what was being said during the interviews. I analysed hard copies of each interview and each focus group separately. I categorised using colour coding for concepts that began to emerge and placed these into a concept map with categories as headings. As Davis and Meyer (2009) suggest I would go over these and move any if need be and drew arrows if I saw links with other themes.

I made hierarchical representations of concepts based on how often the concepts appeared throughout the data. I then placed all concept maps up and looked at commonalities across the data, I continued to categorise and code into distinguishable categories. This approach is referred to as constant comparative method, (Charmez, 2003) constant refining, rereading and checking of themes, and new concepts that may have been found in the data. I then went back and looked across the data for specific information,' theoretical sampling represents a defining property of grounded theory and relies on the comparative methods within” (Charmez, 2003, p. 267).
Rigour and verification

It is widely recognised that the use of multiple methods of data collection allows for greater depth of data and validity, as the different data sources can be used as comparisons of emergent patterns (Creswell, 2003; Denzin and Lincoln, 2005; Patton, 2002). It was my intention that by conducting prolonged observation sessions over time, together with running two focus group sessions with students, interviews with staff and photo analysis, reliability of emergent themes would be enhanced.

Awareness of the social setting in which the research is conducted and the social contexts that may influence the study, provide a better overall picture of locating the knowledge and understanding of processes. Maintaining a balance of participants’ voice is key to maintaining authenticity and trustworthiness (Hennink, Hutter & Bailey, 2011). A process of participant checking, presenting the themes and findings to participant groups, and checking that the data is a true representation of their experiences, helped to achieve this balance. I also used a peer reviewer to constantly reflect on the research so it resonated with the reader as suggested by Creswell (2003). Additionally, all themes, including negative ones, were reported to ensure a true representation of findings, adding to their authenticity (Creswell, 2003; Patton, 2002).

The strengths of the research lie in the targeted sampling and triangulation of data from multiple methods of data collected. Data collection methods are reflective of research aims, in particular the use of small sample sized focus groups to allow for more opportunity of exploration, discussion and interaction. Further to this, all participants’ perspectives in the program were heard by holding interviews with staff, focus groups with students and
observation sessions of the whole school over time, maintaining a balance of data from all participants.

**Ethical considerations**

The following protocols were followed to ensure anonymity and respect the rights of the participants. All research conducted received approval from the University Of Melbourne Human Research Ethics Committee. In addition, the Western Australian Department of Education guidelines and ethical requirements were also fulfilled before proceeding with the research.

Written information was provided to all participants, including details of how the data will be used and collected and confidentiality of the research. Written informed consent was obtained from study participants including parents, where applicable. Participants had the option of withdrawing from the research at any time. All records of transcriptions, recordings and observation field notes were kept in a locked filing cabinet in my office and will be destroyed after a period of five years, in accordance with University of Melbourne guidelines. Findings of the research will be presented in a summary report to the school administration, Department of Education, participants and their parents on completion of the report.

Conflict of interest was declared in the ethics application and declared to both the University of Melbourne and the Department of Education. This conflict was identified as being that a key administrator is related to the researcher (myself). This conflict of interest does in no way compromise the research in that the research is evaluating the impact of the program and experiences of the participants; it is not evaluating the participant teacher. In addition semi-
structured interviews were recorded and these were made available to responsible researchers and others to ensure protocol and balance was maintained, followed and appropriate. In addition constant meetings and discussions were held with supervisors to monitor the project and ensure this was followed.

**Summary**

In this chapter I have discussed my methodology. I undertook an intrinsic case study on a targeted sample, a specific case school that introduced the forest school model using a grounded theory approach in analysis. I discussed my choices of data collection and sampling for the study. Analysis and interpretations drawn from the data are presented in the next chapter.
Chapter 4

Results and discussions

In this chapter I will discuss data gathered from the participant observations, semi-structured staff interviews and from the focus groups. The results chapter is divided into three sections:

1. Observations (with two student examples)
2. Student focus groups One and Two
3. Semi-structured staff interviews

Each section includes an introduction giving a brief snapshot of the person/s involved to help situate them in the context of the school and the program.

In reporting data I have categorised emergent themes to summarise and bring meaning to the text. I have categorised these emergent themes into three tiers, the first being the most dominant theme. A dominant theme is one that the participant discusses often and recurs throughout the discussion. It is the most common theme though out the interview or focus group discussion. I then discuss the concepts that emerged and related to these dominant themes. These are presented as ‘related concepts’ and are included as tables summarising the themes in Appendix A (Interview results analysis tables).
Participant observations

In this section I have extracted two specific incidences from my field journal that resonated with me because they demonstrate aspects of the program that are more specific to engagement and self-esteem. I believe these incidences help in understanding and attach meaning to activities and outdoor spaces I refer to in later results and discussions.

Participant observations: 1; Self-portraits.

During a forest session, I initiated an activity in order to better understand the students’ perceptions of self-esteem and identity. The children were asked to create a picture, a portrait of themselves utilising the objects or items they found within the surrounding physical boundary of the forest session.

The students all ran off to create a gallery of portraits and spread out within the large open space in the forest setting. Some chose to go quite a distance away from others. About five minutes into the activity, a millipede was spotted and yelps and squeals were heard as the children stopped what they were doing and ran over to investigate and look. Some tried to dig a hole near it to get it to come out further. Five children lay on their stomachs in the dirt, poking around to see it, not caring they were completely covered in dirt.

They soon moved back to making their own portraits, without being asked to resume. They used the fuzzy moss plants and bushes and logs and leaves and other materials they found lying on the ground to create their pictures.
Participant observation 1:1.1

![Self Portrait](image)

**Figure 1.1 Self Portrait**

Some students chose a particular piece of ground to create their portrait, as there was something growing on the ground and they wanted to feature it. One boy who chose the ground with a flower already growing in it made this evident to me (Fig 1.1). He described his picture and commented that he liked the flower because it was nice, like him, and things he didn’t like he ignored, such as the moss that was a little further away. He likened the moss to people that bully him. This indicated to me that he liked himself but needed to find space or keep away from people he found to be bullies. He seemed to me to be able to verbalise feelings through the activity and he was able to create his picture in a space well away from others, which I felt enabled him to express his feelings as openly as he did. (PO 1:1.1)
Participant observation 1:1.2

Figure 1.2: Bella’s self-portrait

Another student, Bella, called me over to look at her picture. (Fig 1.2). She had used a soft green bush to create a circular frame with a rock in the centre and described herself through the portrait. Bella explained the coal represented the dark within her, saying she was soft on the outside but inside she was hard and tough and no one can get inside. (PO1:1.2)

Discussion
This particular student was identified by staff as one of the most difficult children in the school, evident by reported constant behavioural incidents at school. Bella encouraged staff to listen to her describe her portrait with pride. The depth of understanding of herself and the descriptive and emotive attachment of the portrait, in particular that she shared that with me, a relevant newcomer, surprised me. This also indicated to me Bella’s comfortableness in that setting and freedom to her express thoughts and feelings.
Participant observation: 2

Paul
I have included here my observations of Paul on two separate occasions. The first is Paul as seen in a forest session and the second is Paul as observed during a lunchtime play session within the school grounds.

The forest session
We were making our way across the road to the forest reserve and started heading up a very steep hill, via a rocky limestone track. There were shrieks of excitement and ‘yay’ followed by, ‘can we run?’ The pace suddenly seemed to increase with the excitement and now all the staff were at the back of the group. Students remarked it was fun to climb a hill. I noticed at least 10 children running up the hill and others, including Paul carried at least two bags as they walked up the hill. They explained they were holding the bags so others could run up, nobody had asked them to do this. The kids seemed to work this out for themselves. There was not one complaint walking up the hill. Paul happily chatted to me about his weekend, his interests and his injured knee, which was why he was not running so offered to carry bags.

The head teacher gets the children at the top of the hill and talked of the history of the reserve. The students gathered closely and listened intently around him as he pointed out features. Paul puts his hand up quickly and called out answers to questions and appeared very focused and enthusiastic. He smiled, moved closer to the teacher and shadowed him on the hilltop, remaining very close by his side, in my opinion, indicating engagement. When the students began the walk down the hill he stayed for a little longer. I watched him and he took in the surrounds again, pointed out his house and recounted stories of play to me. Whilst he talked he had his hands moving across the top of long grass with fluffy ends on (cats tails I was told) (Participant Observation 1: 2.1)
**Lunchtime play session**

On this occasion I was walking around the school grounds during lunchtime and I noticed conflict regarding cubby building appeared to be resolved without staff intervention. Most conflict appeared to be on the basketball courts. Paul I noticed was with a group from the forest session and was getting particularly angry and aggressive with other students. He displayed anger verbally and his facial expressions were indicating he was angry. The issue was about rules of the game people cheating and the sharing of the ball. The teacher intervened and when threatened with not being allowed to come to the reserve he became more angry and explosive, answering the teacher back and became verbally abusive to him. This was the same teacher the week before he had shadowed and shown respect and interest with (Participant Observation 1: 2.2)

**Discussion**

My interpretations of the conflict were that perhaps the structure and rules of the game created conflict. The forest session appeared to allow for more freedom and expression, although no specific games played, the environment encouraged sharing, which was not seen in the playground setting on the basketball courts. The forest setting appeared very engaging to Paul and gave him time to reflect on his surroundings. He appeared calmer in that environment on that occasion.

Paul’s anger at not being able to attend the session in the afternoon to me showed his feeling of missing out and that he valued this activity, indicating engagement. It also showed me he was unable to express himself or show his control in that particular instance and environment. Further he appeared to be more a controlling person in directing rules and possession of the ball than compared to sharing bags and helping others at the rear of the group the previous week.
Figure 1.3: Examples of case school’s forest school and activities.

(A) Cubby building.

(B) Outdoor classroom.

(C) Free play and cubby.

(D) Native flora creating natural play spaces.

Children climbed trees or chose to sit and chat during free play in the forest sessions (E). At school children created elaborate cubbies (A) using natural materials collected from the school grounds. Some students found limestone rocks grinding these whilst playing (C). Part of changing the landscape of the school was to plant native flora as found in the forest setting to create a maze and tunnel of trees as it grew (D).

(E) Forest setting
Focus group 1: Miranda and Callum

Introduction

The focus group consisted of two students Miranda and Callum from the year 5/6 class that participated in the forest program. Following introductions, the students gave me a brief outline of their background. I included questions in regard to how they spent their free time at home. I also asked what they did when playing, both inside and outside. I then showed them some pictures of the bush reserve they visited to encourage discussion (Themes are summarised and categorised in Appendix A: Table 1; Emergent themes, student focus group, Miranda and Callum).

<table>
<thead>
<tr>
<th><strong>Miranda: Background</strong></th>
<th><strong>Callum: Background</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Miranda lived locally, walked to school mostly and visited the bush reserve they used for school once every couple of months. She tended to play with friends and stay inside her house, playing electronic games. Sometimes she played on the trampoline outside. She only went to the beach when it was really hot and preferred to be inside with a fan on than being outside. Miranda spent her free time at school playing on the top basketball courts.</td>
<td>Callum walked every day to school and lived locally. He had not been to play in the local reserve for a long time. His mother would not allow him to go, as she was worried about his safety. Most of his free time was at home. Playing at home consisted of riding bikes and scooters on the driveway and sometimes going to the shops. He would also watch TV and if too hot to be outside, he would play electronic games and read mostly. Sometimes he visited friends and made cubbies at home, but not at school.</td>
</tr>
</tbody>
</table>
QN: What came into their minds when I showed a photo of the forest reserve?

Miranda:

*Space, there’s lots of space, they’re not all cramped... Space, you know well I’ve said this before but stands for the same thing, like it’s not all hot and bothered and not with too many people walking around you; they’re like spread out a bit. It makes it feel not too loud because you can’t really hear the other kids’ voices* (M: 1.1).

Miranda continued:

*When we’re in cramped space like the classroom the teacher would get really angry because it’s getting really hot and lots of kids have got in one little space, but when we’re there the teacher’s really gentle to us and stuff. And they’re more entertained so they don’t think about fighting, they think about the trees and stuff... So they’re more calmed down in a big ... big space than a little cramped space* (M: 1.2).

Miranda further described her feelings:

*So peaceful because the tree leaves rustling together makes it feel not too loud because you can’t really hear the other kids’ voices. Calm because the trees are just swaying and you don’t feel, I don’t know, you can’t hear too many normal noises like chairs rubbing together, you just hear trees* (M: 1.3).

Callum:

*Peaceful because you’re just by yourself* (C: 1.1).
Freedom and space were dominant themes within the discussions. The sense of freedom appeared to impact on the student’s engagement and social interactions amongst staff and each other (M: 1.2). Miranda believed teachers also displayed a more caring nature in the forest setting (M: 1.2). Davidson (2001) found freedom and space was a key concept in building students’ confidence and feelings of happiness. Spaces in the forest setting enabled feelings of happiness and freedom as expressed by both Miranda and Callum (M: 1.1; M: 1.2; C: 1.1). Miranda found that her confidence increased in the forest setting. She also believed, in part as a result of more space, conflict and tensions amongst staff and students appeared to be reduced there (M: 1.2).

Miranda outlined the forest environment in rich descriptions and this communicated to me the impression of sense of place (M: 1.3). A sense of place and belonging was displayed by the deeper connections Miranda expressed by the use of both senses of sight and sound in her descriptive imagery. Kudryavtsev et al., (2012) considered a developing bond between people and places as ‘place attachment’, this he suggests, promotes a sense of belonging.

<table>
<thead>
<tr>
<th>The students then talked about the cubby building in the forest setting and back at school:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Miranda:</strong></td>
</tr>
<tr>
<td><em>Also the other reason I think that they make cubbies there and not at school is because there’s less people and there would be less fights and they know the people, so if they do something bad they’ll listen and they’ll go away, but if it’s the whole school you’re just gonna feel like you’re gonna be cramped and won’t be as fun (M: 1.4).</em></td>
</tr>
<tr>
<td><strong>Callum:</strong></td>
</tr>
<tr>
<td><em>Because like there’ll be too many fights and it’s because they steal sticks off each other and then they’re like ‘Oh that’s my stick’ (C: 1.2).</em></td>
</tr>
</tbody>
</table>
Miranda’s comments appeared to me to indicate that more space allowed for conflict to be resolved more easily by the students in the forest setting as compared to school (M: 1.4). Callum substantiates this indicating there may be more opportunity for cubby building in the forest setting (C: 1.2). From these I construed that conflict resolution amongst students was improved in larger spaces with more room and with less people.

<table>
<thead>
<tr>
<th>QN: I then asked what the best thing was about going to the reserve?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Miranda:</strong></td>
</tr>
<tr>
<td><em>We got to run around like up and down the hills and people would go right to the top and then they’d run down, like, really fast, they’d look like they were going really slow but when you're actually doing it you’re going, like, so fast (M: 1.5).</em></td>
</tr>
<tr>
<td><strong>Callum:</strong></td>
</tr>
<tr>
<td><em>It’s peaceful, colourful, mostly, and it’s got lots of shade… It’s really fun climbing up stuff and there’s lots of view….Climbing trees, playful, because you can run around and jump over stuff and climb stuff easily, and it’s much more easier than these trees here because they’re really long and you can’t get onto the branches. And it’s outside (C: 1.3).</em></td>
</tr>
</tbody>
</table>

Students then made reference to discussions about learning outside:

| **Miranda:** |
| *It’s more different to the classroom and you see a lot of different things every time you move spaces. We do a lot of fun things there. And when I was there one time with Mr. Robert he showed me how to measure trees and I bent down and my head was going like really close to the ground and everyone was laughing ’cause you have to look through your legs to see the tree and everyone was laughing. It’s not boring learning, it’s a way to learn stuff but it’s interesting (M: 1.6).* |
| **Callum described the new outdoor play areas within the school grounds:** |
| *My friends we just play on ... do free running like jump and stuff. Yeah I do that a lot me and [name], we count tyres and see how much we can get without falling off. But the only reason we’re allowed to hop off is we go back to class or we have to get a drink or things like that (C 1.4).* |
Engagement is seen as an indication of student’s excitement and involvement in learning and activity (Davidson, 2001; Duckworth, cited in Bobilya & Daniel, 2011). They talked of the learning activities as their favourite aspects alongside free play; learning was interesting to them (C: 1.3; M: 1.6).

Both students displayed excitement in describing their experiences and enjoyment while learning outdoors (C: 1.3; M: 1.5; M: 1.6). Callum described the physicality of the forest setting in activities. He also described similarities with his engagement in activities encouraged with the development of new natural play spaces in the school playground (C: 1.3; C: 1.4). The theme of space was reinforced, space gave students opportunity to be active, to move and explore (M: 1.5; C: 1.3).

QN: We then talked further about involvement in the grounds development and I asked how they felt about it.

<table>
<thead>
<tr>
<th>Miranda:</th>
<th>Callum:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeah because we feel special, like we get to plant our own tree and name it and all that... yeah our teacher spoils us a lot. Well I feel more – I don’t know what the word is, looked after than the other [classes] ‘cause... it’s not really that but they don’t get much stuff like that and we’re pretty lucky to do that. [The teacher] trusts us so much that we can use nails in a board to do string art (M: 1.7).</td>
<td>Exciting. Because like you don’t really do that at other schools... Like we’ve got gingerbread man-making cakes (C: 1.5).</td>
</tr>
</tbody>
</table>
A sense of belonging was further displayed in these comments. Both students reinforced this in relation to their thoughts and feelings of pride associated with the grounds development at school and participation in the forest sessions (M: 1.7; C: 1.5). A sense of belonging is a developing social bond and a connection to others and to nature itself as Charles (2009) construes. Miranda felt her teacher cared about them more (M: 1.7). This is important in that she recognised her teachers behave differently and more positively when in the forest setting than compared to the classroom setting.

I further explored how understandings of classmates and teachers had changed:

<table>
<thead>
<tr>
<th>Miranda:</th>
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</thead>
<tbody>
<tr>
<td>[At school] the teacher does get a bit scary when she’s really yelling at the other people like when they are naughty, I feel like I don’t want to be in the class anymore. [At the forest] That’s pretty good because I thought school was just a boring place that you go and learn stuff but at school I’ve learned that teachers can be fun as well (M: 1.8).</td>
</tr>
</tbody>
</table>

She continued in regard to the other students:

I don’t know how that changes it but I just feel more interactive with them when we’re down there. Well, in classroom time they hang out with all their friends and they are naughty most of the time and when we’re down there we have to be in, like, groups and stuff and we interact more, we learn more about them. But some people in the class, they tolerate the people and they get to know them and it gets better (M: 1.9).
Social relations, as reported by Mygind (2009) improved in the forest setting. Miranda believed that whilst they were in the forest setting, behaviour amongst students improved and in turn allowed for more social interaction amongst the group to develop (M: 1.9). Further, I construe that the positive emotional feelings she associated when in the outdoor setting created a happier environment (M: 1.8; M: 1.9). Davidson (2001) talks of increased opportunity and confidence in developing new group relations and social interactions. Miranda gave evidence of this in her comments on greater tolerance when working with others, resulting in more positive interactions than in the classroom. (M: 1.8). She included more interaction on a personal level with staff, and appeared to connect this with engagement (M: 1.8).

Summary

Social interactions appeared to improve in the forest setting. The outdoor space and freedom are identified as contributing to feelings of a sense of calm, peace and enjoyment. These positive feelings attached to the freedom appeared also to link to a positive impact on engagement. Both Callum and Miranda talked about feeling special and trusted due to participation in the program, which I believe contributed to developing a sense of belonging.
Focus group 2: Ian and Tim

Introduction

Ian and Tim were in the year 5/6 class that participated in the forest school program. We talked about school and their experiences with the program. I took the children outside where they drew a map in the sand of their journey, walking from school to the forest reserve. The boys discussed their maps and experiences. These formed the basis of discussion. (Themes are summarised and categorised in Appendix A: Table 2; Emergent themes, student focus group, Ian and Tim)

<table>
<thead>
<tr>
<th>Tim: Background</th>
<th>Ian: Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim lived locally and played at the local reserve and the beach on some weekends with his Dad. He was 12 years of age at the time of the study. He enjoyed friends coming over and sometimes utilised the reserve to play. He appeared very active and liked sports; basketball, and soccer were some of his favourites.</td>
<td>Ian lived locally and talked of staying at his cousin’s often. His cousin is older and they have gone to the local reserve to play and sometimes to the beach, without their aunt’s knowledge. He appeared to play outside often in the local area out of school time and found his aunty, who he stayed with, did not want to take them places. He believed her interest was with other adults and not him and his cousin.</td>
</tr>
</tbody>
</table>
QN: I asked how they felt during the forest sessions.

<table>
<thead>
<tr>
<th>Tim</th>
<th>Ian</th>
</tr>
</thead>
</table>
| *Happy… When he [teacher] asks or tells us to go and play. [I like] Climbing the trees with my friends… I usually start chatting and running, climbing trees. ‘Cause it’s different to what we usually do at school…No, like, we listen and measure. Like, measuring how tall stuff is, how long it is and how wide it is. It’s good but it’s a bit hard ‘cause some trees are really tall so you have to walk a long distance to find* (T: 1.1). | *At the top of the hill over there and we’re going. [I feel] bored. [Why?] We have to wait a little while. It’s boring just Waiting for the others and then we have to get back inside because everybody’s being silly.*  
*[In the forest] Nice and free. Pretty good ‘cause we’ve actually started walking [there], because it’s work about trees and that, measure how tall they are and how old they are and that’s pretty fun* (I: 1.1). |

They further recounted specific details of the forest setting:

<table>
<thead>
<tr>
<th>Tim</th>
<th>Ian</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Peppermint. ‘Cause it smells like it. Well there’s lots of peppy trees down at the maidens but it reminds me of mosquitoes. The cat-tail things smells like liquorice, remind me of my mum’s house because she doesn’t mow the lawn much. In the long grass where you have to be careful where you step ‘cause it’s all covered and you can’t see. [And what do you have to be careful of?]. <em>Snakes and spiders and sticks</em> (T: 1.2).</td>
<td></td>
</tr>
<tr>
<td><strong>Tim continued:</strong></td>
<td></td>
</tr>
<tr>
<td><em>Yeah, all these plants around here… ‘cause I usually go and climb the same tree every time, and my friends we just always go to the same spot. [We know] what limbs to climb on, which ones are strong</em> (T: 1.3).</td>
<td></td>
</tr>
</tbody>
</table>
Key concepts from discussions were engagement, freedom and a sense of space. Connection to place and a sense of belonging were also apparent. Engagement was demonstrated by enthusiasm and the expression of positive feelings associated with being in the outdoor environment (T: 1.1; I: 1.1). Mygind (2009) finds engagement to be greater in the nature setting, due to lower levels of boredom than are often experienced in the classroom. The children in the focus group 2 reported that the outdoor learning environment offered greater variety and more opportunities for active learning and self-discovery (T: 1.1; I: 1.1). The detail recalled demonstrated to me their depth of learning and enjoyment. This confirms, as the literature suggests, that such concepts can enhance and engage children in learning (Davidson, 2001; Duckworth, cited in Bobilya and Daniel, 2011).

Charles (2009) construes that deeper connections to nature can help enhance understanding of the world we live in and is part of building connections with community, in turn, developing a sense of belonging. Tim described the forest setting in detail alluding to the sense of smell such as peppermint and liquorice (T 1.2). I interpreted his recollection of scents as marking the beginnings of a deeper connection to place, specifically to where the forest sessions occurred. Further, Tim talked about returning to the same tree and area within the boundaries of the forest setting each week, which, I believe, shows a sense of ownership and connection to the forest setting (T: 1.3). In particular, he mentioned gaining an understanding of which trees are safe to climb through self-exploration of the potential risks associated with tree climbing (T: 1.3). Tim appeared to confirm Knight’s (2009) suggestions that allowing children to take risks could further develop problem-solving skills and encourage resilience by building confidence over time.
QN: I asked how the forest setting made them feel.

<table>
<thead>
<tr>
<th>Tim</th>
<th>Ian</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Happy ‘cause I like being at the reserve. Just ‘cause It’s not noisy</td>
<td>*Fun [in the forest]. And in the classroom you can’t run around. Run</td>
</tr>
<tr>
<td>and quiet. We can be a bit louder because there’s no other teachers</td>
<td>around and you get your name moved… I feel sometimes squished</td>
</tr>
<tr>
<td>down there ‘cause there’s more room to run around down the reserve,</td>
<td>because I think I’m in little. You can be loud down at the reserve.</td>
</tr>
<tr>
<td>there’s more stuff than in the classroom… there’s stuff to climb</td>
<td>Sometimes because everybody’s just annoying me and I don’t want to</td>
</tr>
<tr>
<td>and run around. So we’ve got to concentrate [in the classroom] on</td>
<td>come to school and then I start hating school. Then when everybody</td>
</tr>
<tr>
<td>that stuff as well as talking (T: 1.4).</td>
<td>doesn’t annoy me, I like school (I: 1.2).</td>
</tr>
</tbody>
</table>

I asked Ian what he did to cope when he felt annoyed.

*Climb trees (I: 1.3).*

The freedom and space offered in the outdoor environment also promote motivation, positive relationships and physical activity (Davis, Rea and Waite, 2006; Knight, 2009). The student’s level of engagement appeared to be positively impacted by the increased sense of freedom and space they discussed when comparing the classroom and forest setting. They felt less restricted by space and staff outdoors, which again enhanced their sense of freedom (T: 1.1; I: 1.1; T: 1.4). Tim spoke of the forest setting being quiet, and although he mentioned that you could be noisier there than in the classroom, the added space gave him a sense of peace and quiet. Ian confirmed this by mentioning he could also be loud in the forest setting (T: 1.4; I: 1.2). They gave examples of having had feelings of happiness and contentment as a result of the freedom and space afforded them. In addition, Ian found the extra space gave him the opportunity to find his own area to feel good about himself and others (I: 1.2; I: 1.3). In my
opinion he demonstrated the restorative benefits of the outdoors, which Maller et al., (2009) discuss. I take these examples as reinforcing self in a positive way, thereby influencing self-esteem.

**QN:** I then asked the boys what would make the program better.

<table>
<thead>
<tr>
<th>Tim</th>
<th>Ian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeah [make] the reserve bigger (T: 1.5).</td>
<td>Make it more fun and leave earlier so have more time... If the whole school was more expanded then like this year [bigger] (I: 1.4)</td>
</tr>
</tbody>
</table>

Tim and Ian were happy and enjoyed the forest session due to freedom and space to run around. Both students wanted bigger spaces for the sessions and more time at the reserve, indicating, in my opinion, engagement (T: 1.5).

**Discussions moved to differences in the forest setting as compared to school in regard to friendships.**

<table>
<thead>
<tr>
<th>Tim</th>
<th>Ian</th>
</tr>
</thead>
<tbody>
<tr>
<td>It's a little different because when we’re in class and talking we’re usually talking and doing something else at the time but when we walk down there, all we have to do is walk and talk about stuff. You can sort of joke around a bit... And just talking with my friends, but probably at the reserve we actually do talk a bit more ‘cause we’re not... when we’ve got the free time and all, whereas at school I’ve got stuff like basketballs, footballs and work to do (T: 1.6)</td>
<td></td>
</tr>
</tbody>
</table>
Mygind (2009) and Davidson (2001) identify friendships and social relations as improving in the context of the outdoors. Tim talked about having more time to talk and found conversations more open in the forest setting with friends. He felt this could emanate from feeling less restricted than in the classroom setting when communicating with others (T: 1.6). The unstructured nature of the activities in the forest setting appeared to encourage communication through conversation more so than in the context of the classroom.

Summary

Tim and Ian both discussed examples of engagement enhanced by the freedom and space offered in the outdoor context. In addition, they both mentioned a developing connection to place and a sense of belonging in the forest setting. This appeared to promote communication amongst students, in turn enhancing positive social relations. These experiences positively impacted on how they felt and offered mechanisms for coping, and in turn built self-confidence.
Staff interview: Eve

Eve is not a classroom teacher, but has the role of school chaplain within the case school. She has a background in the English language area and has worked in a number of different locations and range of jobs from Christian bookshop sales person to local radio host. She originates from the United Kingdom and emigrated to Australia when she was 21.

Previous connection to the outdoors

Eve recounted her early schooling and its impact on her own interest and connection with the outdoors:

"I mean they were just outdoors, the whole school thing was outdoors, 'cause I lived sort of here and the school was like 10 minutes down the road there by walking and I remember we used to take whole classes and walk and it would've been past my house. And then we'd go down to this wood which actually ran behind the back of my house and we would go down there. We'd find birds' nests, you know, we'd do the whole lot so we learned so much.

It's amazing how that school stands out from all the rest and that was a school that I loved and I was there for less than two years but, you know, to me it was just fantastic (E: 1.1)."

She continued:

"I know how it made me feel, I used to love it when the teacher said 'OK and now we're off down to the woods to go for a walk'... knowing that helps me to go for a walk. It's what motivates me to take the kids. And I hope to show them that, 'Hey, don't you feel so much better if you're outside?' (E: 1.2)."

Eve spent quite some time talking enthusiastically about her past experiences as a school pupil who had the opportunity to be exposed to the outdoor learning environment. The accuracy with which she recalled these memories indicated the positive impact that they had had on her and her belief that learning in the outdoors is of value.
I asked Eve why the forest program and outdoor areas created at school were important and she replied:

_A lot of kids aren’t used to conversation, I think that’s ’cause they don’t have conversation happening at home. Their relationships at home aren’t always that great and they have a lot of electronic gizmos where they can go on them on their own. There’s no need to communicate, so they don’t (E: 1.3)._

She continued:

_A lot of the games they play are like this game called Zombies, which I still don’t think I really understand… but you know, it’s a game that doesn’t require any communication, it’s just moving around (E: 1.4)._

She believed the children were playing at school, but not interacting nor communicating with others. In Eve’s opinion conversational skills have declined due to the use of electronic media. Eve believed that the children’s play was reflective of the individualised virtual games children often played. This was compounded by poor relationships at home and did not give the children the opportunity to practice social conversational skills.

I asked Eve if she had noticed any difference in the children’s relationships with her after participating in the school’s focus on the outdoor environment:

_Think kids are more comfortable when they’re outside. Some don’t have to be outside to be comfortable, but some, if I bring them into my office you don’t get as deep a conversation until you take them outside… A child that would be quite reserved when I start with them, because for whatever reason they’re not ready to open up, that helps just being outside and talking about the plants ‘cause maybe they got involved with planting them themselves as well (E: 1.5)._
She described observations in regard to communication through conversation as follows:

So it’s really great that they get that opportunity and you see them actually having conversations... And yet if you wandered around the playground at recess, you know, you wouldn’t hear such good conversations happening, it’d be more of arguments or no talking at all, yeah, they seem to do their own thing (E: 1.6).

She continued:

And the other thing I really like is the communication ‘cause when we were walking to places, we haven’t even got to wherever we are so we haven’t started the lesson, but they’re communicating, they’re talking, and that’s another thing that I see really lacking in this school particularly (E: 1.7).

A benefit from the forest session that Eve talked about was the opportunity it gave the children to engage in conversation. She also noted a difference in the school playground setting to the forest setting. Conversational playground behaviour appeared to be more negative. Eve highlighted the improved communication skills of the pupils, which she had noticed through conversations that they had on their journey to the reserve. She also commented on another observed outcome:

Again, it’s more noticeable which one is the one that always wants the attention when you’re inside, whereas when you’re outside they can be the ones that never get their voices heard and so it sort of evens it up a bit more (E: 1.8.)

Eve talked about the students who may not be heard within the walls of the classroom as they can be less likely to speak or speak up in the classroom. Eve noticed that the children became more comfortable within the outdoor environment and this aided her in her role as counsellor when talking to the children. The students were more open in conversations when outdoors.
Conversations with other children and staff that may not normally occur within the rigid boundaries and structure of the classroom setting appeared to increase. She attributed this to the unstructured environment of the outdoors and the sense of belonging the children felt from their involvement in the grounds development.

The forest school sessions further contributed to interaction and communication during the journey to the reserve. In addition, the sense of freedom and space afforded the children the opportunity to talk to each other and contribute in class discussions when outside.

When asked about how the children may feel when outside, Eve described the following:

> Well, I do see that they feel happier, and I think they feel more free, they feel like ‘Yes, I can say these things and I can talk because the teacher’s not going to tell me off for talking ‘cause we’re outside…’ So I think once we get outside they feel more free, more able to say what they want to say (E: 1.9).

I asked Eve what her perception of self-esteem was:

> Self-esteem, believing in yourself and believing that you can do things, it’s good for you to have a pride in some of your work, some of what you can do. Sometimes that [pupils’ self-esteem] gets really put down… So they can lose that self-esteem in a sense of they don’t want to put their hand up and say anything or mention anything because they’ll just get, you know, shut down (E: 1.10).

Eve mentioned:

> Because I do talk to a lot of kids that either have mental health issues or they’re verging on it and I just think you’ve got to understand what you can do for yourself that is so easy (E: 1.11).
I believe Eve saw the outdoor environment as contributing to students’ self-worth. Students felt calmer and happier in the outdoor environment and felt valued for what they had to say. This included a personal connection to outside created from involvement in establishing the school grounds. With the mental wellbeing of students in the school as a primary focus, Eve linked being outside with positive feelings of self-worth. She felt taking the children outside was providing students with coping strategies that were relatively simple and realistic.

Eve talked about the children’s interaction in both the classroom setting and the forest setting and illustrated a difference with the following example:

*It was a boy and a girl, one asked the other ‘Can you carry my bag ‘cause I want to run?’ and so they did. They ran up the hill and the other one carried the bag. And when we came down they had sorted that out perfectly that they were then gonna reciprocate. The other carried the bags and the other one got to run down. And I just thought that sort of thing never happens in this school because they’re always arguing and blaming one another. And, yeah, because we were outside, that just happened and it was just a natural thing (E: 1.12).*

She further illustrated the improved relations:

*Well I see the way that they can be polite to one another, there’s less arguments, there’s less aggro (E: 1.13).*

I believe Eve’s comments gave solid examples that the children had formed new relationships and demonstrated empathy for each other in the forest setting. Eve also discovered that the children appeared to play and behave quite differently in the school setting as opposed to the forest setting.

When asked if Eve could identify student engagement her response was:

*I can say that all the kids looked like they were engaged; you know all excited about what they were doing. Well, I can see them engaged in conversations to the point where they don’t*
even noticed they’ve crossed, you know up ahead, they’ve crossed over the road [laughs] they’re so into their conversations... (E: 1.14).

She continued:

But they’re engaged in something out there and they’re just fascinated to find something. So yeah, I do see the engagement, not necessarily in what’s happening but I like the way that if they find something and they’re all like come over, come over, we’re free to do that, and I think that is teaching them ‘Hey we’re here to learn and to be inspired about learning’ (E: 1.15).

She continued and spoke of comparisons to the classroom:

That’s right, I can go into their classroom, if I walk anywhere near their classroom or walk into their door when they’re working they’re all ‘Eve, Eve, Eve’, you know,[and they] jump up (E: 1.16).

She then talked in relation to the new outdoor learning space created (Fig 2.1):

I walked quite close to them ‘cause I went to the admin block and none of them called out to me so that tells me they were way more engaged there than they would be in their classroom (E: 1.17).
Eve noted the children’s motivation to learn as their listening and concentration levels in the outdoor classroom appeared more engrossed than the indoor classroom setting. She also described the sense of excitement and discovery when students found something new, further confirmed by her observations of when students gathered quickly to look and share their findings in self-discovery.

_Eve: Summary_

Outdoor learning approaches promote positive relational benefits (Maynard, 2007; Mygind, 2009). Eve noted this in comparisons between classroom levels of communication to those in the forest setting (E: 1.6). In her opinion communication through open conversations increased outdoors and there was more interaction than reported in the classroom setting.
Likewise in the home setting students played differently and often individually, with less verbal interaction (E: 1.4), which she attributed to electronic play as suggested by Kappos (2007), and poor relationships at home that Eve referred to (E: 1.3).

Social interactions appeared more positive in the outdoor setting due to the open spaces with the children behaving more at ease and comfortably in that setting (E: 1.5). Davidson (2001) supports the enhanced sense of freedom outdoor spaces provide, which in turn boosts self-confidence.

The outdoor areas were seen as potential spaces that could provide students with a sense of quiet and calm. I believe Eve considered these spaces as useful for they provided students a means of coping, particularly for those with low self-esteem. Eve perceived self-esteem as self-belief and pride. She identified the children with low self-esteem as more engaged in tasks and who had begun to believe in their capabilities in relation to self-belief and pride, thereby boosting their self-esteem.

The connection to the outdoor environment through the grounds development is mentioned more as a conversation starter as she walked outside with the children commenting on the plants they may have planted or been caring for (E: 1.5). However the enthusiastic sharing of new discoveries confirmed to Eve that there was improved student engagement (E: 1.15). She identified their enthusiasm through their focus during activities and attention when participating in learning activities in the forest setting (E: 1.17).

Eve confirmed that social interactions appeared improved in the forest setting through more open communication and active listening. She also believed a comfortableness and familiarity
with being outside promoted this. As a consequence Eve spoke of the children’s excitement and engagement in describing their inspiration to learn.
Staff interview: Amy

Amy was the classroom teacher of the year 5/6 class that participated in the forest sessions at the local reserve. Her teaching experience spans eight years with one of those years spent in the eastern goldfields of Western Australia. She had been teaching at the case school for the past six years, teaching the participant class at the case school part time, two days a week. The area of teaching that she was largely responsible for with the participant year 5/6 class, was Maths and Science. Other responsibilities within the school were facilitator of Speech and Language programs with the early years and relief in year 1 and 2 for staff preparation and planning time. She lived locally and had lived in the larger regional centre for 20 years. Part of the reason her class was chosen by the principal as the participant group in the program, was the intent to continue the program the following year as facilitator.

During our discussion I asked Amy’s if the outdoor environment impacted on behavioural issues?

*I think because they are not closed in, they’re not feeling like they’re in the four walls, I have to sit there, I have to be quiet, I have to do what I’m told. They’re out there; they feel like they’re more in control. Yeah, they get a set boundary and they’re just left to their own devices, make your own fun, and that’s what they do. They climb trees, they play hide and seek, they see who can climb the highest or, you know, they run around (A: 1.1).*

She continued:

*Because when they’re down there they didn’t have to be within an arms’ distance away from each other, whereas in the classroom there’s no escape, you’re in there. If you’ve got to go to get a pencil you’ve got to walk past, or near, or in the vicinity of someone that you may not like. Whereas down there they didn’t have to go anywhere near each other if they didn’t want to, they could stand at opposite ends of the log, they could work in a totally different area. So they were always positive, there was no negativity (A: 1.2).*
Amy believed a sense of space and freedom allowed the children to play, be more active and explore (A1.1). In addition it allowed students to find their own space and the opportunity to move away from situations or people that they may have felt uncomfortable, which in turn promoted positive behaviour (A: 1.2). She considered that the forest setting gave the pupils a sense of space and freedom; students felt that there was less teacher supervision (A: 1.1). This, she felt, gave the students more control in choosing activities.

In saying this, however:

For some of them, for some of the boys it has, yeah because they can be boys, they’re doing boy stuff; they’re climbing trees and doing all that. But then in saying that then the stick wars came out and the fighting with sticks, so it brought on a different sort of behaviour in that sense, but they were still out there playing and building cubbies and being kids. And it’s good, and they’re playing, they’re not just sitting around doing nothing, they’re playing (A: 1.3).

Although Amy had talked of a new freedom with more active play she also reported new behaviours developing. The play was more physically active and boisterous and may have, at times, crossed the boundaries of what was acceptable in school. However, I believe from her sentiments she felt this was an important experience (A: 1.3).

We went on to discuss the importance of the grounds development and the pupils’ involvement in this:

They’ve got a bit of a say and that’s their grounds ‘cause a lot of kids play there so they’re so familiar with, it’s like they own it, it’s their... reserve...Yeah they loved it, loved it. I think just getting outside, back to nature, back to being kids, running round being kids, we don’t let them get dirty, you know, you don’t let them ... oh no that might not be safe (A: 1.4).
The children helped to plant and develop their school grounds, contributing to a sense of ownership and engagement. I liken Amy’s description of ownership the children felt to displaying a sense of belonging and improved connection to the school grounds and to the forest reserve.

Amy described her understanding of the students’ self-concept:

_The way you feel about yourself. And how you think … the way that other people perceive you [students’ self-esteem]. Negative, very low, a lot of them … we have some that are either over-confident which to me there’s a reason for the over- … some of it’s not just because they are a bubbly outgoing person, but a lot of them have a very low self-esteem and low self-image (A: 1.5)._  

Amy also noted a change in student’s realisation of capabilities in the forest setting:

_And, you know, you didn’t have to be academic or artistic or sporty to do it, anyone could do it, and that’s the likes of say [name] or those that have trouble with their learning, they could do it (A: 1.6)._  

Self-esteem appeared to improve in the forest setting and Amy discussed comparisons with the classroom setting:

_Oh it improved heaps down there, but it didn’t correspond back when they got back. They accepted someone’s differences or someone’s inabilities down there, but when they came back to class, huh, they code switched back to how they [usually] were (A: 1.7)._  

My interpretation of Amy’s comments (A: 1.6) is that the children experienced different roles and successes in the forest setting, improving their perception of self and others. The forest setting gave the children the opportunity to see themselves differently and positively, both behaviourally, socially and in turn building self-worth.
When asked when she observed the children being most engaged or involved, Amy gave examples from within the forest setting:

_During the activities, I think while they were doing the activities. Then after when Robert would bring them back and they would, like, show what they’ve done or explain what they’ve found or something like that, I think that’s when they were most into it._ (A: 1.8).

I questioned her further to ask how she would identify this engagement:

_They weren’t standing around doing nothing, they weren’t task avoiding, they were all doing it, just their laughter and excitement and the group work, it was just… compared to what you get in the classroom, they all did it, there was not one… you had one that might’ve moaned but they all did it, and completed it, it wasn’t a half-hearted job, it was done and completed._ (A: 1.9)

Amy’s comparison of engagement in the both the forest setting and the classroom setting showed a distinct difference in engagement and work ethic. She felt students did their work with more confidence and completed set tasks in the forest setting. This is quite different to the less motivated and often unfinished work observed within the classroom setting (A: 1.9).

In describing engagement Amy added:

_Yeah it was exciting for them because they like to know and they like to have everything in a set format, you know, so they wanted to know: What are we doing? Why are we doing it? So it was good._ (A: 1.10).

Amy recognised the forest setting provided an element of surprise. The unstructured environment of the forest setting; not knowing what was to be done or what they were about to do added an element of surprise to the experience, and in her opinion further enhanced engagement. Further to this, Amy discussed behaviour in relation to engagement:
[The] kids’ behaviour was fantastic. Behaviour issues were minimal compared to the playground, in the class sort of thing. Those kids that would usually be focused upon for behaviour were fine... Little things came up but they were like spot fires, you could put them out and they got over it, there was too many other things to be focused on than what, you know, the person next to them was doing (A: 1.11).

The positive behaviour changes that Amy witnessed when in the forest sessions she accredited to enhanced engagement. However this was not displayed when back in the classroom. Once they got back into the classroom they switched back to previous behaviours and attitudes. Amy also concluded that managing students was easier for her than in the classroom setting due to improved behaviour.

Amy talked further in regard to students interacting with one another:

*Quite often in the classroom they are quite negative to each other, whereas they seem to become more positive as well, they seemed to. The mixing of personalities that would generally or usually not associate with each other, if they were put in a group they actually got along and they didn’t whinge and complain and didn’t say they didn’t like that person, they just got on with it* (A: 1.12).

Amy spoke of improved relations in the forest setting. During the program there was more mixing of personalities and friendship groups broadened.

She continued:

*Depending on the weeks, you know, the girls are one day they’re friends, the next day they’re not. But when they went down there that seemed to go by the wayside, whether they were feuding at lunch or something beforehand, when they got down there that was fine. But as soon as they came back to school it continued* (A: 1.13).
Amy expected to see reciprocal positive behaviour towards one another back at school following participation in the program but did not see evidence of this. She continued discussing student roles within the classroom:

Some of their… less outspoken became more leaders sometimes if needed like because they might've been put … some of the lower achieving ones could achieve because everyone can do it, you didn’t have to be academic or sporty or… you know, just those kids that always sit under the line, under the radar (A: 1.14).

She explained that there appeared to be more positive social interactions and acceptance of each other (A: 1.12). Amy indicated the outdoor forest sessions allowed for the children to all achieve a sense of success and achievement (A: 1.14). I interpreted these observations as the forest setting providing a more inclusive environment. Amy said this was important amongst this group of students as they were not generally accepting of difference, which could cause negativity amongst them. However group skills and improved relations did not appear to transfer into the classroom setting (A: 1.13).

Amy also discussed the differences in her relationships with the students as a result of the interactions in the forest sessions:

I think they see me now not only as a teacher but someone that they can approach and someone that they can talk to and someone they can have fun with when needed or, you know, when allowed or whatever and that sort of thing. It doesn’t have to all be structured and I am the teacher and that’s it. It was a time where you could just walk with them and chat with them and find out other things and get to know them as them and not them as the student in your class who’s really good at Maths (A: 1.15).
She told me how the program affected her personally:

Just getting out of the classroom, getting to know the kids better. I’ve loved interacting with the kids, that’s what I like….I did, I did, I enjoyed going. It got me out of the classroom as well and in a different environment and different ideas (A: 1.16).

The unstructured nature of the outdoor forest setting and activities gave Amy the opportunity to interact on a more personal level, enhancing approachability for students (A: 1.15). I understood that Amy found that as beneficial in building positive staff–student relations (A: 1.16). I interpreted Amy’s enjoyment of the program as indicating her own enhanced engagement in the teaching and learning process.

Amy: Summary

Davidson (2001) promotes the idea that giving children a sense of freedom builds confidence and contributes to self-esteem. She suggested this could be achieved through free play. Amy’s comments were in line with Davidson’s (2001) argument and provided concrete examples (A: 1.1; A: 1.2). The forest settings gave students more space, choice and in turn a sense of freedom. The open spaces and free time allowed for students to have more variety in choice of activities. They were free to make decisions on how to use their time in the forest setting, contributing to a sense of freedom. In addition they felt less inhibited by the presence of staff (A: 1.1).

Amy noted that open communication and conversations increased whilst outside, aiding social interactions amongst the group and staff (A: 1.15; A: 1.16). She believed social relations were improved and students were more inclusive and accepting of others. The children were more friendly to one another and interacted more in the forest setting than in the classroom setting (A 3.11; A: 1.12). Improved relations amongst staff and students
resonates with Davis, Rea and Waite (2006) who contend that outdoor learning environments contribute to establishing positive relations with teachers and each other. Mygind (2009) also identifies improved friendships and social relations through outdoor learning.

Connections to school grounds and community are promoted through the grounds development and use of the local reserve for the forest sessions. Maller et al., (2005) argue that this creates community connectedness and in turn, a sense of belonging. This argument is supported by (Charles, 2009). A sense of belonging was demonstrated through the children’s feelings of being in control in the outdoor setting both at school and in the forest (A: 1.1). The sense of control was achieved through inclusion in the development of the grounds. This endowed the children with a sense of ownership. Amy substantiated this by explaining the more familiar the children became with the grounds and the forest reserve, the more they felt they owned it, and that this could be an indication of belonging (A: 1.4).

Self-esteem can be related to sense of belonging. Shaping identity, building self-esteem and creating caring environments are concepts important in creating a sense of belonging (Teese and Polesel, 2003). Amy believed the children with low self-esteem appeared more engaged in the forest setting. They viewed themselves differently; more positively, both behaviourally and socially (A: 1.6; A: 1.7; A: 1.14). A sense of belonging provided further opportunities to engage students and recapture their enthusiasm for learning as reflected by Charles (2009) and Maller et al., (2005).

Levels of excitement and laughter amongst the group are reported as evidence of engagement. Amy gave the impression that the children were engaged due to the high levels of laughter and excitement (A: 1.9). She attributed this to the unstructured nature of the
activities and the element of the unknown that the reserve offered (A: 1.10). This resonated with Bobilya & Daniel’s (2011) discussions on engagement with the belief that engagement is enhanced by rendering learning experiences exciting, with elements of surprise, (Bobilya & Daniel, 2011). Amy recognised this element of surprise that the forest setting offered students in the unstructured nature of activities and free play. Enhanced engagement in tasks resulted in improved work ethic amongst students; they were more productive in the forest setting (A: 1.9). She also suggested her own engagement was enhanced interpreted by her enjoyment of the program (A: 1.16).

There is evidence that the children behaved differently in constructs of different worlds, the world at school in the classroom, the world outside in the school grounds and the world seen in the forest setting (A 3.7; A: 1.9; A 3.12; A: 1.13; A: 1.14). In saying this Amy also gave examples of how she felt different, more positive and engaged in the forest setting as compared to the classroom setting (A: 1.16). Urrieta (2007) describes this as the different ways people understand themselves and relate to others within the worlds that they participate in.

These differences in the two settings can be construed as figured worlds. Figured worlds here appeared to be focusing on particular contexts in the educational setting and the identities that emerged within these (Urrieta, 2007).
Staff interview: Robert

Background

Robert is an experienced principal and held leadership posts in various schools throughout Western Australia since 1989. He has been in his current role at x school for the past eight years and was keen to introduce the program to the school following an educational tour of the United Kingdom to explore the concept of forest schools. He had also previously returned from a trip to a pacific group of islands in the role of education and community liaison with the defence services and had seen the impact of learning in the outdoors in those communities. His interest in the outdoors as a learning environment also came from his own connection with the outdoors and from his remote school teaching experiences. Robert initiated and became responsible for the implementation of the program in the school and the facilitation of the sessions in the forest reserve with the year 5/6 class.

My interview with Robert followed the same interview schedule that I had used with other staff, and I allowed emergent themes to guide the discussion. These emergent themes are discussed and these have been summarised in Appendix A, Table 5 (Emergent themes, staff interview, Robert).

I asked Robert if he had seen any behaviours develop over the course of the program and he responded:

*I saw their ... I don’t know what the word is, comfortableness, with being outdoors increase greatly from quite timid and reserved to quite... They were very tentative, when you’d say ‘OK’, you give them a task to do, ‘Off you go and do it’, they were very tentative, and after a while there wasn’t that... they would just zoom off and do it, they were just full of beans, there wasn’t that hesitation (R: 1.1).*
He continued:

And they kept asking for the area to be increased in size, you know, they became comfortable with the size of the area we were working with and what it... and we did increase it in size but they wanted it even bigger, so they were quite happy to wander off on their own and do their thing (R: 1.2).

Robert described how children’s involvement and active participation progressed over time. I interpreted this as examples of children becoming more engaged. He attributed this to their increased familiarity with the outdoor setting and being comfortable within the boundaries of the forest setting (R: 1.1). He gave further evidence of their engagement and increased comfort in that setting by the children’s expression to have the area of the session increased, he believed, to further explore and engage in activities (R: 1.2).

I then further explored the idea of engagement with Robert and asked what evidence he had seen of this:

They’re not sitting down doing, you know, they’re actually moving around looking, smelling, feeling, they’re not just doing nothing and they’re not coming up to me going’ I’ve finished Mr Robert, what do I do next?’ you know, they’re actually... ‘cause actually they never do come up to you and say they’re finished ‘cause they’ve always got more to do, (R: 1.3)

He also mentioned:

I think the speed with which some of them would head down there. We took a long time to get down there to start with and then we ... did you notice that? It didn’t take long to get down there after a while ‘cause they kind of went ‘Oh yeah, let’s push on’, and these were the kids that were probably not the fittest would push on and get down there in a hurry. When we got there, I think when you let them go and have their lunch in the area and you see a couple of kids up a tree eating their lunch, that’s pretty good, [laughs] it’s like, hey, they get it (R: 1.4).

Another example of engagement he gave is illustrated below:

You know when it rained how shattered they were that they weren’t going down there. And when it rained they’d still do a forest school thing but in their classroom, and they were
shattered... [and students said] Oh no it’s raining, that sort of stuff, you know. No one was going ‘Yay, it’s raining, we don’t have to go’ (R: 1.5).

Students displayed enthusiasm and appeared excited about learning. Their active participation in learning was displayed by their use of sight and smell in discovering and exploring things (R: 1.3). I understood this example as evidence of allowing for a broader depth of learning and in turn engaging children. From Robert’s observations the children also seem to initiate further learning again I considered this to be indicative of engagement (R: 1.3). In my opinion this is an important observation in that children have time and are encouraged to achieve beyond the aims of tasks given, which they appeared to do from Robert’s account. According to Robert, student engagement appeared high during free time in the forest setting. His understanding was that free time gave children further opportunity to explore and take risks (R: 1.4). Additional concrete examples of increased engagement that Robert mentioned were: the speed that students walked down to the reserve, their constant activity and enthusiasm; and their genuine disappointment when rain cancelled their visit (R: 1.4; R: 1.5).

Robert then mentioned staff engagement:

_The staff want their kids involved in the program next year, ‘cause next year it’ll be a different class, it’ll be one class, it won’t be the same kids. And I think there’s a bit more eagerness amongst the staff to, oh can it be my class, whereas that wasn’t there before so I think that the staff are engaged. I think they’re seeing the, you know, they’re seeing the link and they’re seeing the good stuff that’s happening down there and they’re hearing it from Amy and Eve and they want to get involved (R: 1.6)._  

He noted an eagerness amongst the staff, indicative he attributed to engagement in the program. They wanted their classes to be a part of the program and in Robert’s view this was
because the staff noticed the links with positive behaviour changes within the school and were keen to be involved (R: 1.6).

I further explored his understanding of the links with behavioural changes seen within the school grounds:

> The old steel playgrounds are pretty boring and the kids just don’t get into it. So it was really to get the kids more active out in the playground. We used to get lots of fights out there, lots of kids causing dramas, and if you keep them busy doing stuff and excited. We certainly have reduced the number of incidents in the younger aged kids, the older ones are still up to no good occasionally but the younger ones are OK (R: 1.7).

I asked his impressions of students’ connectedness to the school following the program and grounds development:

> I think they might’ve made some links with … ‘cause they planted that area, the new native forest that we’ve planted on the school site, and I think they started to make some connections. Going down to the reserve and doing that made them make some connections with what we’re doing here, the renaming of the school, you know, that whole new ethos and direction of the school, I think it started to, you know [make sense] make some links for them. (R: 1.8)

With the development of nature play areas Robert talked of a reduction in negative behavioural incidents during free playtime at school (R: 1.7). Robert attributed this to children having more variety of activity and being more physically active during playtime in the school grounds (R: 1.7). Robert also identified that the children involved in the forest reserve sessions became aware of links with the school grounds and the reserve, linking flora and the school’s new name, reflective to that of the reserve. I believe he was perhaps seeing students link the community reserve to the school as a whole, which perhaps gave them a sense of connection in the community and school. He believed that this was due to their involvement in planting native flora at school that is also found in the reserve and participating in sessions in the local forest reserve (R: 1.8).
I then moved on in discussions and asked how he would define self-esteem? Robert described it as:

Well, self-esteem is how you perceive yourself, your place in the group, you know, how you feel about yourself in relation to the others. I think the kids with the low self-esteem that normally ‘Oh me, oh my, I can’t do it’ [in the classroom], went and did it [in the forest]. But they did it ... instead of giving up they did it but they did it on their own (R: 1.9).

He discussed possible reasons for differences he saw in self-esteem in the school and forest settings:

I don’t think there’s a fear down there of getting it wrong and being made to look a fool in front of everyone else. And those kids with low self-esteem, that’s why they won’t, you know, contribute or put their hands up (R: 1.10).

He further discussed reasons for this:

Within the classroom I think the teacher ... it’s a lot more teacher-directed to keep them on task and I don’t think out there it needed to be, you know, it was intrinsically motivating what they were doing. Kids were working independently, they were learning, sharing. I had some of the more challenged behaviour kids working with the kids they’d normally be bullying, you know, sharing and caring and that was probably the high point (R: 1.11).

Robert talked of students with a low self-esteem performing well in the forest sessions and I concluded that the session was giving students the opportunity to experience success (R: 1.9; R: 1.10). Students were more confident about their ability, supporting his definition of self-esteem (R: 1.10). He believed the environment was less formal, students continued to attempt tasks and did not give up and therefore experienced completing a task independently, which gave them a sense of achievement (R: 1.9; R: 1.11).
Results discussion: Robert

Robert’s interview indicated that engagement was a benefit of the forest school, a point substantiated by Knight (2009). Robert reported a caring and positive environment was created through positive social relationships (R: 1.7; R: 1.11) as supported by Mygind (2009). Robert indicated that students became more involved, eager to participate and excited with the forest reserve sessions. Students were constantly busy, interested in learning and actively utilised all the spaces of the forest setting, particularly during free play (R: 1.1; R: 1.3; R: 1.4). Staff also displayed a desire to be more involved in the program, which suggested they too were more engaged, particularly as they began to see links with positive behavioural changes seen in the playground at school (R: 1.6).

The children displayed improved behaviour with the introduction of new natural play areas and through planting native flora in the school grounds (R: 1.7). Maller et al., (2005) argue that links to local community parks are important in developing wellbeing through a sense of place and belonging. Links were made with the native plants students planted in the grounds development to those of the forest setting, further contributing to connection to local community grounds and school (R: 1.8). Robert commented that as the forest reserve became more familiar, it added to students’ sense of belonging and place as suggested by Charles, (2009) and Maller et al., (2005). Students showed a strong sense of belonging in their desire to have spaces enlarged, and demonstrated a positive engagement and increased confidence in the area visited (R: 1.2).

A curriculum built on strength of teacher quality and one that creates a caring community through emphasis on self-esteem, identity and group connectedness are concepts identified by Garst, Scheider and Baker (2001) and McLeod and Allen-Craig (2007). The forest setting
according to Robert appeared to be a less threatening and formal environment than the classroom setting, providing the children with a sense of freedom, thereby encouraging students to participate and continue to strive to achieve (R: 1.10; R: 1.11). This appeared particularly true of the students with low self-esteem and contributed to developing a sharing and caring environment. Robert believed the student-centred learning approach promoted more independent learning allowing for those with a low sense of self more opportunity to complete tasks and experience success (R: 1.9; R: 1.11).
Chapter 5

Summary of Discussions and Conclusion

The focus of my study was to gain insight into the forest school approach to teaching and learning within the context of a single case primary school. My specific intention was to explore the impact this approach had on the participants’ self-esteem and sense of belonging, and to examine how student engagement was affected.

In this chapter I therefore present a synthesis of the data collected, as well as a conclusion to the study and suggest recommendations for the development of the forest schools program and future research.

The main question in the study was:

To what extent does the outdoor learning environment provided by the implementation of the forest school approach to learning have any noticeable impact on self-esteem and sense of belonging among participants?

In order to provide an answer, I explored four key sub-questions.

1. Are there improved outcomes in self-esteem and sense of belonging as a result of the forest school experience amongst participants?

2. Is student engagement affected by participation in the forest school program and does this act as an enabler to learning?

3. Are there any other emergent concepts that arise from the case school’s implementation of the forest school program?

4. How do pupils and staff interpret their experience with the forest school program?
The following answers to the above sub-questions emerged from my results.

Are there improved outcomes in self-esteem and sense of belonging as a result of the forest school experience amongst participants?

I explored the staff’s concepts of self-esteem and used these to help both interpret and explain the staff’s perceptions of improved self-esteem that students demonstrated in the forest setting. Staff demonstrated varied understandings of self-esteem, which included describing self-esteem as self-pride and self-belief and also how students saw themselves in relation to the group. Generally staff suggested that pupils had low self-esteem and might have mental health issues. They were initially hopeful that the program would offer students experiences that would build self-esteem and consequently reported success in aspects they had identified as representing self-esteem. This highlighted both the relationship with the forest setting itself and the experiences in the forest setting as being positive determinants for building self-pride, self-belief and relationships with others.

I found that instead of being able to identify one broad outcome of self-esteem, students began to identify that the forest setting made them feel good and associated it with specific positive feelings. This aligns with discussions in the associated literature, which discusses the concept of self-esteem as being broad and difficult to measure (Brookes, 2004; Davidson, 2001; Maynard, 2007). The students themselves possessed a good understanding of their identity and how they felt about themselves, which was evident in the self-portrait activity, whereby students clearly and openly described themselves. Although these descriptions were not always a positive picture of self, they demonstrated a sophisticated understanding of their own self-concept. Bella gave a clear example of this when describing herself as quite soft on
the outside but likening her inner-self to a stone, very hard and difficult to penetrate (PO1: 1.2). Such activities were valuable for determining how students felt about themselves and suggested that the environment appeared to help them express their feelings more comfortably. The forest school program not only engendered children with positive feelings when situated in that setting, it also enabled them to express these more freely.

The diagram below (Fig 5.1) illustrates how I grouped influencing factors that staff and students discussed as promoting positive emotions. It outlines my interpretation of how students’ participation in the program led to one group of determining factors that influenced their sense of happiness, which in turn influenced the next group. I drew similarities to the effect a stone has when thrown into a pond whereby the effect of the initial program (like the stone) is followed by another inter-reaction (the outward ripples) and the impact is consequently broadened; like a water ripple as it spreads across the pond.

*Figure 5.1 Spheres of influence impacting on students’ feelings.*
The above diagram summarises the aforementioned ‘ripple effect’ that I discovered in regard to students’ participation in the program and determining factors influencing their sense of happiness. Students felt good about themselves by being in the open spaces of the forest setting; in turn they were more comfortable with each other. They formed new social relationships and demonstrated a more caring and sharing nature, as did staff. As a result students’ sense of belonging was evident and in turn students felt good about their achievements, happy and content as result of the program. The flow-on effect of each group of factors built on the previous and in turn, appeared to boost each participant’s positive feelings towards themself and others.

When discussing the forest setting and the program it is important to note that students attributed their sense of freedom and resulting positive emotions to not only activities and the natural environment of the forest setting itself but also to changes they identified in staff in that setting. The staff were identified as having a gentler nature, as being more personable and approachable in that setting, and appeared less visible, which further promoted students’ freedom, and subsequently influenced positive feelings and social experiences in the forest setting.

The relaxed atmosphere and the unstructured nature of the setting had an add-on effect of developing lines of communication between staff and students not previously reported in the classroom setting. Communication was a predominant concept reported by both staff and students. There were reportedly more opportunities to converse and this occurred more frequently in the forest setting. I suggest this aspect built confidence through open communication, which in turn developed group cohesiveness and social interactions.
Positive social experiences and the sum of previous groups of influencing factors (see figure 5.1) in the forest setting created a caring learning environment that encouraged sharing of ideas and empathy with fellow students that had not previously been demonstrated in the classroom setting or playground setting. Results of this case school study supported the notion of relational benefits that Mygind, (2009) also suggests, influencing positive feelings and behaviours through participation of forest sessions in the reserve.

Sense of belonging

Students gave examples of their developing sense of belonging by expressing their pride at being included in the grounds’ development and participation in the forest sessions. I believe a link to staff’s concept of self-esteem is evident here and students demonstrated improved outcomes in relation to staff’s perceptions of self-esteem through sense of belonging.

Students employed emotive language and their senses (sight and smell) to express their feelings of peace and calmness in the forest setting, ‘Calm because the trees are just swaying and you don’t feel, I don’t know, you can’t hear many normal noises... you just hear trees’ (Miranda, M: 1.3). Students attributed symbolic meanings such as peace and calm to the forest setting, which resonated with Kudryavtsev, Krasney and Stedman’s (2012) interpretation of place meaning. This could be considered as evidence of a reconnection to nature and a developing bond to the forest reserve in particular, that Charles (2009) speaks of.

A sense of belonging, which promoted pride amongst groups and a connection to place, also appeared to influence feelings of self. It could be construed that the flow-on effect of belonging then returns to the group of factors of positive feelings (see figure 5.1) to start again to positively influence the following groups and in turn further promote belonging.
interpreted the positive feelings students expressed and sense of belonging as influencing self-esteem and support perceptions of self-esteem as given by staff. These themes appeared to overlap with and promote social interactions and group connections with the participants in the study.

**Is student engagement affected by participation in the forest school program and does this act as an enabler to learning?**

The unstructured nature of activities offered students the element of the unknown, which built excitement and anticipation into their learning. Student excitement and enjoyment were seen as strong indicators of engagement in the forest setting. Duckworth (cited in Bobilya & Daniel, 2011) and Davis, Rea and Waite (2006) argue that an element of surprise and the unknown could further create a sense of engagement, which staff in the case school study reported.

Eve confirmed this observation when she described the forest setting as a place that inspired learning and felt that students demonstrated this through their excitement and fascination in discovering things and extending tasks beyond expectations of staff. Miranda expressed this as, ‘It’s not boring learning. it’s a way to learn stuff, but it’s not boring, it’s interesting.’ (M: 1.6). When discussing the learning environment, staff also spoke of their own engagement in the teaching and learning process as a consequence of participation in the program. Students identified staff as being more positive and engaged, which added to their enjoyment of the forest sessions.

However, improved behaviours and engagement in the school setting did not appear to change in some instances. Although natural play areas appeared to reduce overall negative
incidences, it highlighted the fact that often behaviours remained unchanged in the playground setting. This suggested to me that the natural play areas may have operated as new play space for a limited number of students, and that it perhaps offered an outlet for students otherwise disengaged in the playground setting. Further, evidence emerged suggesting that students and staff had contrasting behaviours in their teaching and learning as well as perhaps lower expectations with regard to student achievement and success in the classroom setting. This could be linked to the reported unchanged behaviours in that setting.

**Are there any other emergent concepts that arise from the case school’s implementation of the forest school program?**

**Open spaces and sense of freedom**

The open spaces that the outdoor setting provided in the case school, particularly in the forest sessions, were elements that helped create a sense of freedom, as suggested by all staff and students in the focus groups. The forest setting provided more choice and space resulting in feelings of freedom, which resonated with Davidson (2001) who supports the concept that freedom is a key element in promoting a sense of enjoyment and therefore ensuing engagement. Having free time and free play appeared to contribute to their sense of freedom. Making decisions to be active, build cubbies climb trees or to sit and enjoy a chat with friends in a new environment enhanced this feeling.

Freedom and open spaces in the forest setting allowed students to feel less inhibited. Pupils altered their behaviour in this new forest environment; they took more responsibility, extended their work, used their initiative and took more risks. The forest setting appeared to open up new and changing identities not evident in the classroom setting. Students learning
identity shifted and they became more engaged and positive. Staff too, demonstrated new behaviours towards students; however these behaviours did not transition back into the classroom. These observations can be explained and link to the notion of figured worlds.

**Figured Worlds**

The notion of ‘figured worlds’ explores students’ positioning of themselves as learners and individuals in particular settings. Students’ learning identities are based on a combination of individual identity and social interactions in a particular setting (Rubin, 2007). In the case school I watched the emergence of three distinct worlds; the classroom setting, the playground setting in the school grounds and the forest setting. Students displayed particular behaviours and expectations of themselves and staff, which were different in each setting. I have tabulated these worlds in Table 6, (page 105) and summarised the differences noted in my findings.
<table>
<thead>
<tr>
<th></th>
<th>Forest setting</th>
<th>Classroom setting</th>
<th>School grounds/Playground setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Space</strong></td>
<td>Open space</td>
<td>Constricted</td>
<td>Variety of activity</td>
</tr>
<tr>
<td></td>
<td>Own space</td>
<td>Small</td>
<td>Lack of cubby building space</td>
</tr>
<tr>
<td></td>
<td>Freedom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associated feelings</td>
<td>Cool</td>
<td>Hot</td>
<td>Fun</td>
</tr>
<tr>
<td></td>
<td>Calm</td>
<td>Bothered</td>
<td>Enjoyment</td>
</tr>
<tr>
<td></td>
<td>Peaceful</td>
<td>Noisy</td>
<td>Pride</td>
</tr>
<tr>
<td></td>
<td>Happy</td>
<td></td>
<td>Territorial behaviour for cubby building resources</td>
</tr>
<tr>
<td>Learning</td>
<td>Active/unstructured</td>
<td>Formal/structured</td>
<td>Active</td>
</tr>
<tr>
<td></td>
<td>Interesting</td>
<td>Boring learning</td>
<td>Imaginative play</td>
</tr>
<tr>
<td></td>
<td>Self-discovery</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Student-centered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff – student relationships</td>
<td>Friendlier</td>
<td>Angrier staff</td>
<td>Trusted to look after plants</td>
</tr>
<tr>
<td></td>
<td>Fun</td>
<td>Argue more</td>
<td>Decline in negative incidents</td>
</tr>
<tr>
<td></td>
<td>Gentler/more caring</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More personal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student relationships</td>
<td>Empathy</td>
<td>Naughtier</td>
<td>Respect grounds and plants grown</td>
</tr>
<tr>
<td></td>
<td>Sharing/Caring</td>
<td>Annoyed at others</td>
<td>Conflict of resources for cubby building = lack of enjoyment engagement in nature play areas</td>
</tr>
<tr>
<td></td>
<td>Inclusive</td>
<td>More conflict</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resolve conflict more easily</td>
<td>Disinterested</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not shift group roles</td>
<td></td>
</tr>
</tbody>
</table>

*Table 6: The three figured worlds of participants in the study.*

Staff witnessed children in the forest setting achieving elements of success, engaging in broader social groups and interacting more positively with one another, which Rubin (2007) construes is an important component in building positional identities. The forest setting
context provided students with different perspectives as learners as suggested by Urrieta (2007). Children displayed a high level of engagement as a result of the different learning identities they posited in the forest setting. As Rubin (2007) suggests, analysis of students’ learning identities in school settings and shifting identities in newly created worlds (such as the forest setting) are worthy of further investigation. Such research may help further understandings in adopting strategies, which might address cycles of ‘continual reproduction of social inequalities’ (Rubin, 2007, p. 225).

The apparent lack of transfer across the contexts of the forest and classroom setting may be attributed to Urrieta’s (2007) suggestion of figured worlds. Students’ understanding of themselves and the ways they related to others appeared to change in particular settings. In addition, staff also displayed different behaviours in the different settings and this is important for future understandings of student engagement and performance in that staff too, have positional identities in their teaching roles in different contexts that in turn impact on student learning and engagement.

A contributing factor to students’ new positional identity displayed in the forest setting may be that students developed a sense of place with that specific setting. A sense of place as described by Kudryavtsev, Krasney and Stedman (2012) is a combination of both place attachment and place meaning. Place attachment is where a person associates a place with particular social bonds and activities and can be based on natural landscapes. Place meaning developed as students identified symbolic meanings linked to the forest setting. This was further reinforced by frequent visits to the reserve and positive social interactions in the reserve. Students in the case school had direct experiences in a natural landscape and learned
about the reserve through other people (staff) and through interpretive activities supporting factors influencing a sense of place that Kudryavtsev et al., (2012) speaks of. The sense of place being nurtured in the forest setting allowed for a connection to place and in turn, connection to a more positive learning environment, which influenced the development of new positional identities for staff and students in that setting. These concepts may provide us with new directions to follow when encouraging engagement and sense of belonging in school communities.

**How do pupils and staff interpret their experience with the forest school program?**

Students interpreted their experience in the forest school program as a fun way to learn and they expressed feelings of pride at being involved in the program. The students enjoyed the new grounds being developed at school and felt they had more ownership of the school through being a part of the process in creating their new grounds. However, they appeared to see distinct differences in school because although the spaces appeared to be much larger, they felt more constricted due to the number of staff and students wanting to utilise the resources available for free play. Staff also interpreted the new behaviours in the school playground as sometimes negative, however it was considered important, particularly for boys, to have a more physical outlet and to learn to negotiate boundaries. If managed correctly, staff felt it was an important learning situation.

Staff and students enjoyed forest sessions and these sessions enabled staff to witness students in a different light. It gave some staff opportunity to engage in conversations and assist in understanding student problems or communicating with the students back at school. Overall the experience was a positive one, one in which staff and students appeared keen to continue to develop and be involved in.
Summary and conclusion

This chapter drew on the themes that emerged from the provision of the outdoor learning environment through the forest sessions and school grounds development. In answering questions that drove the research, a number of issues and themes emerged that have implications for both practice and further research.

In particular these findings suggest that students who participated in the program experienced success, undertook different group roles, and had freedom to explore and take risks. This promoted engagement, enhanced feelings and built self-confidence. The staff in the case school in this study had a clear understanding of definitions of self-esteem and students expressed understanding of their own self-esteem. Feelings such as happiness, fun, peacefulness and sense of calm may be attributes that contribute to self-esteem. However to measure these as indicators of self esteem is difficult and while this was not undertaken in this study, it could be grounds for further research.

The freedom, space and familiarity children associated with the outdoor setting enabled more open communication and in turn promoted positive social relations. Further, students acknowledged the physical space of the forest setting allowed freedom of personal space and expression. These consequently promoted student engagement amongst participants in this case school and contributed to feelings of happiness within themselves and towards others.

Students expressed a sense of belonging through positive emotions linked to the forest setting and in the newly developed school grounds. A sense of place contributed to students’
formation of more positive learning identities in the forest setting. Students and staff developed more positive learning and positional identities when in the forest setting. However, students and staff behaviours were distinctly different in the three worlds identified, impacting on engagement and feelings associated with those settings. For example, when students were in the forest setting, they were happy and engaged in learning. However, returning to the classroom, students and staff reprised their traditional classroom roles, relationships and expectations. As a result behaviours and engagement were notably different.

Therefore, in answer to my main question, I discovered that the forest school approach to learning enhanced student engagement and contributed to students feeling positive, but was limited to the forest setting. Although participation in the program had greatest impact in the forest setting, it was important to develop natural play space and school grounds to more resemble a natural setting. This added to engagement for some in the playground and was a contributing factor in building a sense of belonging. Further, the study reported agency as evidenced by sense of belonging, engagement and new related concepts – freedom and space.

In light of these findings the following section will present and discuss potential for future research.

**Recommendations**

It was clear when studying the data that the resulting benefits and influencing factors appeared to be linked to the development of altered behaviours in the forest setting of both staff and students. The suggestion was that each of these figured worlds were quite distinct from each other. Further research which analyses students’ learning identities in each world...
identified would give greater insight into the relationship between staff and students and the environment that alters positional identities in the different worlds observed. It may also assist in understanding if transference across worlds would occur with involvement over an extended period of time and explore if identities shift between worlds or remain distinctly separate.

The study proposes that additional research would be beneficial in assessing the effectiveness and benefits of forest schools in Australia. I suggest a longitudinal multiple case study that follows a number of case schools adopting this approach in a variety of contexts across Australia in both urban and regional areas. The study could investigate the difference in opportunities in outdoor experiences of both advantaged and disadvantaged groups. At the same time, a longitudinal study would enable the exploration of questions relating to behaviour change through involvement in such a program.

Such a study would allow researchers to suggest what timeframes in implantation are required to see an impact on student learning, engagement and relationships and whether this continues beyond participation in the program. Through exploring this it may be important to consider at what point students recognise processes of how to achieve agency and associated positive feelings and subsequent behaviour changes.

A further focus of inquiry could be studies that explore the relationship between sense of place and identity and how the forest school program promotes this. An important part of this exploration should be the identification of symbolisms; meanings and attachments to place that develop as a result of exposure to learning in natural settings. This would further identify students’ associated feelings when they feel good about themselves to help explore how these
can contribute to a person’s self-esteem. In doing so, this study could explore potential blockers and builders that impact students’ feelings in the different settings.

I would also like to underline the importance of teacher training and facilitation of such a program. In doing so I see a need for an evaluation of staff training for the implementation of an Australian-based forest school approach to learning and adaptations made for the Australian environment.

Lastly, I believe the Australian environment is a unique and varied setting that is perfect for offering forest schools in the form of bush schools and beach schools. It would be beneficial to further investigate differences that are faced in Australia compared to European forest schools. This research could evaluate how to adapt the European model to one that continued to follow the ethos of the forest school approach, in an Australian context, and offer a breath of fresh air to Australian children’s learning environment.
References


References continued.

References continued.


References continued.
Appendices

A: Interview results analysis tables
B: Plain language letter – student (attached)
C: Plain language letter – parent (attached)
D: Plain language statement - teacher (attached)
E: Teacher consent form (attached)
F: Parent Consent form (attached)
G: Sample transcription (attached)

1. Semi-structured interview guide (attached)
2. Focus group discussion guide (attached)
Appendix A

Interview results analysis tables

Table 1: Emergent themes, student focus group, Miranda and Callum.

<table>
<thead>
<tr>
<th>Dominant Theme</th>
<th>Related Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom/Space</td>
<td>Play, student behaviour, outdoor space and noise, sense of engagement</td>
</tr>
<tr>
<td>Space and emotional wellbeing</td>
<td>Feelings of emotional and mental wellbeing expressed, sense of belonging, sense of community,</td>
</tr>
<tr>
<td>Engagement</td>
<td>Free play, learning environment,</td>
</tr>
<tr>
<td>Social relations</td>
<td>Student staff relationships in outdoor context, student behaviour, students’ friendships, positive learning groups in outdoor context</td>
</tr>
</tbody>
</table>

Table 2: Emergent themes, student focus group, Ian and Tim.

<table>
<thead>
<tr>
<th>Dominant theme</th>
<th>Related concepts</th>
<th>Sub concepts</th>
<th>Related sub concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>Learning style</td>
<td>Outdoor context</td>
<td>Social relations</td>
</tr>
<tr>
<td></td>
<td>Behaviour</td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Freedom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>Free play</td>
<td>Space</td>
<td>Coping strategy</td>
</tr>
<tr>
<td></td>
<td>Sense of Place</td>
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Table 3: Emergent themes, staff interview, Eve.

<table>
<thead>
<tr>
<th>Dominant Theme</th>
<th>Related Concepts</th>
<th>Sub Concepts</th>
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</thead>
<tbody>
<tr>
<td>Previous connection to</td>
<td>Coping strategies</td>
<td>Belonging</td>
</tr>
<tr>
<td>outdoors</td>
<td>Engagement</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Sense of space/freedom</td>
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</tr>
<tr>
<td></td>
<td>Social Relations</td>
<td></td>
</tr>
<tr>
<td>Social Relations</td>
<td>Freedom/space</td>
<td>Discovery learning</td>
</tr>
<tr>
<td></td>
<td>Engagement</td>
<td>Empathy</td>
</tr>
<tr>
<td></td>
<td>Behaviour/play</td>
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<td>Self-esteem</td>
<td>Self confidence/pride</td>
<td>Providing coping mechanism</td>
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<td></td>
<td>Freedom</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Emergent themes, staff interview, Amy.

<table>
<thead>
<tr>
<th>Dominant Theme</th>
<th>Related Concepts</th>
<th>Sub Concepts</th>
</tr>
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<tbody>
<tr>
<td>Sense of freedom</td>
<td>Sense of space</td>
<td>Behaviour</td>
</tr>
<tr>
<td></td>
<td>Ground development</td>
<td>Belonging</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Engagement</td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>Behaviour</td>
<td></td>
</tr>
<tr>
<td>Social relations</td>
<td>Students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Sense of freedom</td>
<td></td>
</tr>
</tbody>
</table>
Table 5: Emergent themes, staff interview, Robert.

<table>
<thead>
<tr>
<th>Dominant theme</th>
<th>Related Concepts</th>
<th>Sub Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>Behaviour, free play, Social relations Staff, Grounds development</td>
<td>Free play, behaviour Connectedness</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Learning styles Achievement</td>
<td></td>
</tr>
</tbody>
</table>
“Exploring an outdoor pedagogy to promote self esteem and re-engagement”

Hello! My name is Fiona Cumming I am a student at the University of Melbourne. I am doing a project to find out how the outdoor program you have been doing is making you feel and to find out what you think about it. When I finish my project it will be part of my degree, called a Masters of Education, My teacher, Melanie Nash, helps me with my project, she is called my “supervisor”. Melanie works in the Graduate School of Education and I study there.

Your school principal and your teacher have given me permission to send you this letter to tell you a bit about my project. Once you have read the letter you can decide if you would like to take part. You should talk to your parents about the project too.

If you want to be part of the project, I would ask you to be involved in a small group discussion with some of your classmates on how you feel about the program and talk about your experiences in it. You and a small group of people from your class who are taking part would go into a spare room and we would talk about the program. We will do some drawings and activities to help you discuss your experiences. If you want to stop doing the discussion group, you can tell me and go back to the classroom any time you like. If you don’t know an answer, or you don’t want to answer a question, that’s fine too. The rest of your class will be doing another activity with your teacher and there will be 8-10 people from your class with you for the activity. I would like to audiotape the discussion so I can have a better record of what we talked about.

Only my supervisor and I will see your answers and listen to the tape, so please don’t worry that your teacher might look or listen to them. The project will have nothing to do with your school report or your grades. You don’t even have to write your name anywhere, so no one will be able to tell which answers were yours.

After the project is over, I will lock all the work away safely in the school of Education for 5 years. I have to do this because it is a University rule. After that my supervisor will destroy them.

Remember, you don’t have to take part unless you want to. If you have any questions you should talk to your teacher or a parent. If they don’t know the answer to your question, they can contact me, or my supervisor, or the Research Ethics Office at the University for you.

If you want to be part of my project, and your parent/s agree, please sign your name on the next page where it says “student”, and get your parent or guardian to sign as well.

Yours sincerely,

Fiona Cumming
Ph: 08 93607422
Email:fiona@bigpond.net.au

Ms Melanie Nash
Ph: (03) 834000
Email: mjnash@unimelb.edu.au
APPENDIX C

PLAIN LANGUAGE STATEMENT: PARENT/GUARDIAN

Melanie Nash (supervisor)
Melbourne Graduate School of Education
Ph: (03) 8344 8225

Jo Robinson
Orygen Youth Health Research Centre
The University of Melbourne (co-supervisor)
jr@unimelb.edu.au

Ms Fiona Cumming (Masters Of Education by Research Student)
Melbourne Graduate School of Education
ph. (08) 9360 7422

Project: Exploring an outdoor pedagogy to promote self-esteem and re-engagement.

Introduction
We write to you to seek your consent to invite your child to participate in a Masters of Education research project being conducted by The Melbourne Graduate School of Education, The University of Melbourne. Fiona Cumming, a Masters student, is conducting the research and Melanie Nash and Jo Robinson are supervising the project. The aim of the study is to explore the impact that an outdoor teaching approach to learning has on self-esteem and student engagement. The Human Research Ethics Committee, The University of Melbourne and The Department of Education Western Australia have approved this project.

What will my child/ward be asked to do?
Should you consent to your child’s participation, they will be asked to contribute in two ways. First we would ask your permission to observe your child once a fortnight during their normal outdoor forest school program. Second, we will ask your child to participate in two small group discussions that will be recorded (audio-tape). This gives us an accurate record of what your child says. We estimate that the total time commitment required would be approximately two hours.

Perceived Conflict of Interest
The student researcher is related to the teacher participant and this is by no way compromising the research, in that the research is exploring the experiences and impact of the program and not the participant teachers. In addition all interviews will be recorded and these are available to responsible researchers and others to ensure protocol and balance is maintained. In addition regular meetings and discussions with supervisors to monitor the conduct of the project will occur.
How will my confidentiality be protected?
We intend to protect your child’s anonymity and the confidentiality responses to the fullest possible extent, within the limits of the law. Your child’s name and contact details will be kept in a separate, password-protected computer file from any data that you supply. This will only be able to be linked to your child’s responses by the researcher. In the final report, you child will be referred to by a pseudonym. We will remove any references to personal information that might allow someone to identify your child/ward. The data will be kept securely in the Department of Communications for five years from the date of publication, before being destroyed.

Will participation prejudice my child/ward in any way?
Please be advised that their participation in this study is completely voluntary. Should your child wish to withdraw from the focus group at any stage, or to withdraw any unprocessed data your child supplied, you are free to do so without prejudice to your child. Your decision to give consent for your child participation or not, or to withdraw, will be completely independent of your child’s status in his/her school.

Where can I get further information?
Should you require any further information, or have any concerns, please do not hesitate to contact either of the researchers on the numbers / email addresses given above. Should you have any concerns about the conduct of the project, you are welcome to contact the Executive Officer, Human Research Ethics, The University of Melbourne, on ph: 8344 2073, or fax: 9347 6739.

How do I give consent for my child’s/ward’s participation?
If you are happy for your child to participate, please indicate that you have read and understood this information by signing the accompanying consent form and returning it in the envelope provided.

Thank you for spending time reading this document and we look forward to having you as a participant in our project.

Kind regards,

Fiona Cumming
Melanie Nash
Jo Robinson
APPENDIX D

PLAIN LANGUAGE STATEMENT: TEACHER

Melanie Nash (supervisor)
Melbourne Graduate School of Education
Ph: (03) 8344 8225

Jo Robinson
Orygen Youth Health Research Centre
The University of Melbourne (co-supervisor)
jr@unimelb.edu.au

Ms Fiona Cumming (Masters Of Education by Research Student)
Melbourne Graduate School of Education
ph. (08) 9360 7422

Project: Exploring an outdoor pedagogy to promote self-esteem and re-engagement.

Introduction

We write to you to invite you to participate in a Masters of Education research project by The Melbourne Graduate School of Education, The University of Melbourne that will be conducted by Fiona Cumming, a Masters student, supervised by Melanie Nash and Jo Robinson, for ethics approval with the permission of the General Manager of the Melbourne Research Office. The aim of the study is to explore the impact an outdoor teaching approach to learning has on self-esteem and engagement. The Human Research Ethics Committee, The University of Melbourne and The Department of Education Western Australia have approved this project.

What will I be asked to do?

Should you agree to participate, you would be asked to contribute in two ways. First we would ask you permission to observe the students and staff in the setting of the outdoor learning where field notes will be taken to give descriptions of the learning processes and accompanying observed behaviours and engagement of students. This would occur fortnightly in term 4 and be when the program is running as per your school schedule. Second, we would ask you to participate in a brief semi structured interview of about 30 minutes, so that we can get a more detailed picture of your perceptions of the program in relation to students self esteem and engagement. With your permission, the interview would be tape-recorded so that we can ensure that we make an accurate record of what you say. When the tape has been transcribed, you would be provided with a copy of the transcript, so that you can verify that the information is correct and/or request deletions. We estimate that the total time commitment required of you would not exceed 40 minutes.
Perceived Conflict of Interest

The student researcher is the sister to a participant teacher and this is by no way compromising the research, in that the research is evaluating the impact of the program and not the participant teachers. In addition semi structured interviews will be recorded and these are available to responsible researchers and others to ensure protocol and balance is maintained. In addition regular meetings and discussions with supervisors to monitor the conduct of the project will occur to ensure it is maintained followed and appropriate.

How will my confidentiality be protected?

We intend to protect your anonymity and the confidentiality of your responses to the fullest possible extent, within the limits of the law. Your name and contact details will be kept in a separate, password-protected computer file from any data that you supply. This will only be able to be linked to your responses by the researchers, for example, in order to know where we should send your interview transcript for checking. In the final report, you will be referred to by a pseudonym. We will remove any references to personal information that might allow someone to guess your identity, however, you should note that as the number of people we seek to interview is very small, it is possible that someone may still be able to identify you. The data will be kept securely in the Department of Communications for five years from the date of publication, before being destroyed.

How will I receive feedback?

Once the thesis arising from this research has been completed, a brief summary of the findings will be available to you on application at the Department of Communications. It is also possible that the results will be presented at academic conferences.

Will participation prejudice me in any way?

Please be advised that your participation in this study is completely voluntary. Should you wish to withdraw at any stage, or to withdraw any unprocessed data you have supplied, you are free to do so without prejudice. Your decision to participate or not, or to withdraw, will be completely independent of
your status in your school, and we would like to assure you that it will have no effect on you in school or with the Department of Education, Western Australia.

Where can I get further information?

Should you require any further information, or have any concerns, please do not hesitate to contact either of the researchers on the numbers given above. Should you have any concerns about the conduct of the project, you are welcome to contact the Executive Officer, Human Research Ethics, The University of Melbourne, on ph: 8344 2073, or fax: 9347 6739.

How do I agree to participate?

If you would like to participate, please indicate that you have read and understood this information by signing the accompanying consent form and returning it in the envelope provided. The researchers will then contact you to arrange a mutually convenient time for you to discuss and organize details of your involvement in the project.

Thank you for spending time reading this document and we look forward to having you as a participant in our project.

Kind regards,

Fiona Cumming
Melanie Nash
Jo Robinson
APPENDIX E
MELBOURNE GRADUATE SCHOOL OF EDUCATION

Consent Form: Teacher

PROJECT TITLE:
Exploring an outdoor pedagogy and its impact on self esteem and re-engagement

Name of participant:

Name of investigator(s): Fiona Cumming, Melanie Nash.

1. I consent to participate in this project, the details of which have been explained to me, and I have been provided with a written plain language statement to keep.

2. I understand that after I sign and return this consent form it will be retained by the researcher.

3. I understand that my participation will involve an interview and observation and I agree that the researcher may use the results as described in the plain language statement.

4. I acknowledge that:

(a) the possible effects of participating in the interview and observation have been explained to my satisfaction;

(b) I have been informed that I am free to withdraw from the project at any time without explanation or prejudice and to withdraw any unprocessed data I have provided;

(c) the project is for the purpose of research;

(d) I have been informed that the confidentiality of the information I provide will be safeguarded subject to any legal requirements;

(e) I have been informed that with my consent the interview will be audio-taped and I understand that audio-tapes will be stored at University of Melbourne and will be destroyed after five years;

(f) my name will be referred to by a pseudonym in any publications arising from the research;

(g) I have been informed that a copy of the research findings will be forwarded to me, should I agree to this.

(h) I have been informed of any potential perceived conflict of interest

I consent to this interview being audio-taped [ ] yes [ ] no

I wish to receive a copy of the summary project report on research findings [ ] yes [ ] no

Participant signature: ____________________________ Date: ____________________________

HREC: 1136395.1; Date: 18/06/13; Version: 01

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The University of Melbourne Victoria 3010 Australia
T: +61 3 8344 8285 F: +61 3 8344 8529 W: www.education.unimelb.edu.au
APPENDIX F
CONSENT FORM: PARENT/GUARDIAN

PROJECT TITLE:
Exploring an outdoor pedagogy and its impact on self esteem and re-engagement

Name of student-participant: ________________________________

Name of investigator(s): Ms Fiona Cumming, Ms Melanie Nash

1. I consent to my child’s participation in this project details of which have been explained to me and I have been provided with a written plain language statement to keep.

2. I authorise the researcher to use for the purpose of the project audiotaped group discussions and I agree that the researcher may use the results as described in the plain language statement.

3. I acknowledge that:
   
   (a) The possible effects of the child being audio-taped and participation in the small group discussion have been explained to me to my satisfaction;

   (b) I have been informed that I am free to withdraw my child/ward from the project at any time without explanation or prejudice and to withdraw any unprocessed data previously supplied;

   (c) The project is for the purpose of research / The project is for the purpose of research and not for treatment; (for medical research)

   (d) I have been informed that the confidentiality of the information my child provides will be safeguarded subject to any legal requirements.

   (e) I have been informed that with my consent my child will be audio-taped in the small discussion group and I understand that these will be stored at The University of Melbourne and destroyed after 5 years.

   (f) My child’s name will be referred to by pseudonym in any publications arising from the research.

   (g) Non-participation in the research will have no affect on grades/assessment/employment

   I consent to my child’s participation in the focus group discussion ______ yes ______ no

   (please tick)

   I consent to this focus group discussion being audio-taped ______ yes ______ no

   (please tick)

   I wish to receive a copy of the summary project report on research findings ______ yes ______ no

   (please tick)

   Signature ________ Date ________

   (Student)

   Signature ________ Date (Parent/Guardian)

HREC: 1136395.1; Date: 18/06/13; Version: 01

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APPENDIX G
SAMPLE TRANSCRIPTION

The first thing is just to give me a little background to yourself. So for example my background is my teaching background in high school and university as well as an outdoors instructor with schools and students at risk, and now I’ve kind of gone full circle and I’m back at tertiary and back in Western Australia. And I worked overseas for a year as well in Scotland and that’s when the outdoors interest started actually in terms of career. So what about in terms of your background and your professional experience so to speak in terms of teaching?

Well my background aside from my career obviously is the UK ‘cause I was born in England and I grew up there and I emigrated when I was 21, so all my education was out there in the UK. In terms of my career it’s been nothing huge until I got to being a chaplain. We have done many things. When I first married my husband he was running a second hand car yard and so I would be out there helping to rub down the cars and re-spraying the cars, doing bizarre things like that. Then I moved into a bit more of what I wanted to do, I’ve worked in media like on radio, with the paper.

So was your background teaching then?

No, I did a degree in English [?1:55] with the idea that I would go into media, and as soon as we got married I applied to the ABC in the area ‘cause I was living nearby at the time, and they interviewed me and they said it was great except for my accent. Now I believe if I went for the same interview now even if I’d just come out from England [They’d love you] that would be fine because I think we’re much more accepting of different accents, but right back then they didn’t like it ‘cause we’re talking twenty years ago. So that kind of put me off and I thought well if that’s the way it’s gonna be I won’t do it. But I did do some writing and had my stuff produced on the ABC and I’ve written for magazines and newspapers and things like that. So I sort of, you know, had my outlet elsewhere. And while I was doing that I also worked for a
bookshop and I worked for them for fifteen years, so I sort of did my own thing and sent all my scripts and stuff everywhere and I have my part time work in the bookshop and that just kept me going just nicely. But when we moved back to here I realised that it was way too far to commute to Perth so I thought I'll have to find something else so that's when I went into the chaplaincy which I love. But to go back to my background in England, I think it's very interesting in terms of what we're gonna be talking about today. If I look back on my education, I moved around to quite a few different schools, I would've probably been in four or five schools. Most of them were what you might call inner city kind of schools and it was pretty much all concrete. But one school stands out and that was when I lived near Cambridge in a little village so it was about two thousand people in the village, and that was my favourite school.

And why was that?

There was a lot more trees to … you know, when we went out for playtime you weren't standing on concrete just surrounded by concrete, we got to walk around in the … there was lots of hazelnut trees so in the right season you could crack those open and you could have your own snack at recess. There was a fantastic Principal who came onboard just as we got there who also wanted to get out more and he decided to build a pond, and he got together a group of us and I was one of them, and I remember him driving us to a nearby garden centre where we got books on this and it became a real project.

And this was with just the staff in the building?

Yes, this was … 'cause I was a student then, so myself and a few other students we got to choose the books to build the pond and we had to read up and explain to the teachers what it was we were gonna do.

And what year were you in then?
Well I must … I moved away from there when I was about 10 or 11 so I must have been younger than that, and I can remember that.

**Wow, so younger than the kids that we’re taking out there now?**

Yeah, so I must have been like 9 probably, and I remember reading these books and going ‘Yeah this is what we’ve got to do’. I can remember everybody getting in and digging this pond, I can remember us lining it, and at about that point I think we had to move away. So we moved to Yorkshire, which is further north and the first thing we had to do was build a pond in the back garden because that was what I wanted to do.

**So you had to build a pond again, and you were this expert?**

Yeah so we had to build a pond again, yeah, well I probably wasn’t the expert.

**This was at home or at school?**

We then did it at home, we built a pond at home and my parents still live in that house and that pond is still going. But I think what I’m trying to get at is it’s amazing how that school stands out from all the rest and that was a school that I loved and I was there for less than two years but, you know, to me it was just fantastic. They were very much into getting out, we even did a trip for two weeks I think it was on the Norfolk broads in long boats.

**I have a very good friend who’s from the Norfolk broads**

Well I just look back on that and I think those teachers were either insane or just really, really keen because they took three boats of kids for two weeks. You couldn’t do it these days because surely they would say that is a risk, you know, you’re gonna lose them, because we did have one child, she fell in, we bumped the side and she was feeding the ducks and in she went and she didn’t have a life jacket on.
And you're all sort of grade 3/4?

Yeah we were all young ones, and I can remember her going oh I can’t swim and we knew she couldn’t swim, it was way too deep at that point. So Mr. F. the teacher goes ‘Quick, Ian, get me the’ … I can't remember what it’s called but the long rod that you sort of help to … and Judy is yelling out ‘Me wellies, me new wellies’, ‘cause she’d had new wellies for the trip. And so Ian, bless him, is trying to fish for the wellies and Mr. F. goes ‘Not the wellies you fool, Judy’. So we rescued Judy but we lost the wellies. I mean they were just outdoors, the whole school thing was outdoors, ‘cause I lived sort of here and the school was like ten minutes down the road there by walking and I remember we used to take whole classes and walk and it would’ve been past my house and then we’d go down this wood which actually ran behind the back of my house and we would go down there, we’d find birds nests, you know, we’d do the whole lot so we learnt so much. And as a child I grew up knowing all the butterflies, the moths, the trees, the flowers, I suppose my parents …

Yeah ‘cause you were saying when we were down there.

… yeah, I suppose my parents were into that as well so, you know, we remember sort of the …

And were the other kids as excited or involved?

They were because there was another kid in that school that also got me into breeding butterflies and moths because she did it too. So I came away with a sense that the whole school was, yeah, into the outdoors, you know, I didn’t sort of come away thinking I was the only one into it, I know I was only young at the time and I’m looking back and I’m thinking how I saw it.

Have you thought about that much before here?
I hadn’t, to be honest, a lot of that was kind of like almost forgotten until I came here and watched what Robert was doing and it’s been that school near Cambridge that has made me think yeah this is what we’re doing, you know, and that was my favourite school as well so, yeah. Doing the same sort of thing yes.

... and having experienced it yourself to an extent.

That’s right, yeah, because I know how it made me feel, I used to love it when the teacher said ‘OK and now we’re off down to the woods to go for a walk’. But also similar to the outdoor classroom, I can remember having whole classes where we’d just sit outside and read under the trees and things like that.

Have you seen classes using that classroom, yeah?

Yes, yesterday E. was down there with her class out there as well.

What year group is that?

That’s grade 3.

And how did … were you watching them?

I didn’t, I sort of pretty much just walked past, but I can say that all the kids looked like they were engaged, you know, they were all excited about what they were doing.

And what would you say, if they were in a classroom that same class ‘cause you would know those kids pretty well …?

That’s right, I can go into their classroom, if I walk anywhere near their classroom or walk into their door when they’re working they’re all ‘Eve, Eve, Eve’, you know, jump up. I walked quite close to them ‘cause I went to the
admin block and none of them called out to me so that tells me they were way more engaged there than they would be in their classroom.
APPENDIX 1

Semi Structured Interview Guide

**Semi Structured Interview: Staff**

As this is a semi-structured interview, the questions listed are main questions asked during the interview. The researcher will ask relevant follow up questions not reflected in this guide depending on the participant’s responses and when the situation calls for it.

**Introduction**

1. Instructions will be given prior to the interview commencing (start taping the interview)
2. I will ask you some questions relating to your experiences in the outdoor program.
3. Do you have any questions before we commence the interview?

**Background**

1. Tell me about your professional experience in teaching?
2. How long have you been involved in the school?
3. What were your expectations of the Outdoor program?

**Experience of the program**

1. Can you describe your high points and low points within the program.
2. How positive were your experiences of the teaching and learning process.
3. Did you enjoy the classes? Was it what you expected?
4. How did you find the application of the program?
5. Did your participation impact on your own teaching?

**Engagement**

1. Did the teaching staff engage the children? When were the children most engaged?
2. How can you identify engagement of the children?
3. I would like to focus your attention on the students behaviour, what observable behaviours suggested to you students were
   a. Engaged
   b. Motivated
   c. involved
4. Can you describe their levels of engagement in the classroom?
5. What were your impressions of connectedness to the school and others following the program?
6. How would you describe the children’s interaction with one another? What type of interactions did you experience or observe?
APPENDIX 1

Semi Structured Interview Guide

**Perceived Self Concept**

1. What are your perceptions of self-esteem?
2. What are your perceptions of the children’s sense of self.
3. How would you describe the children’s attitudes towards each other?
4. Can you describe the children’s self confidence or attitudes you observed following the program?
5. How at ease do you perceive the children to be during and after the program.

**Future Implications**

1. What would you hope to achieve by classes participating in this approach?
2. Is the method of learning appropriate for engagement and promotion of self-esteem?
3. What have you enjoyed most about the program? What have you enjoyed the least? Are there any aspects you would address further in future?

**Questions to ask at the end of the interview**

1. I will now summarize what you have said thus far. Could you comment on my summary (e.g. whether you would like to elaborate on anything I have said)?

   (Researcher now summarises what participant has shared to clarify understanding. Care will be taken to use participants words and phrases rather than researchers own terminology.)

2. Do you have you further comments before we end the interview?
Appendix 2:

Focus Group Discussion Guide

**Student Focus group session 1**

These are questions and activities that will engage group discussion.

**Introductory questions**

1. Firstly introduce myself to the students, give them background, where I live my hobbies what I like to do in my spare time, how many children I have, their ages and their sports and interests.

2. Establish ground rules

3. Then ask the students to introduce themselves. Perhaps by including the information in my introduction.

**Opening questions**

1. Show the students a picture of the reserve where the outdoor learning activities have been held. (it may be a photograph and or symbolic picture of the reserve) What comes to mind when you see this picture.

2. Make a brainstorm on butchers paper of all the ideas and thoughts this produced. Discuss or elaborate on key themes.

**Transition questions**

Using these ideas as triggers hand out a PMI (this is a learning strategy where children list the plus or positives, of the program in one column; the minus or negatives in a second column and the I, the Interesting aspects of the topic question. These can be discussed and shared in the group and may trigger more information and discussion.

**Key questions**

1. On these PMI tables ask the students to say how they feel or draw a face to describe how they feel when thinking about or identifying with things they listed on the chart.

2. Then ask how does their involvement in the program overall make them them feel about themselves or their behaviour.

*Alternate or additional activity if time permits to be included in transition is as follows:*

1. Create a collage using magazines and pictures (provided) with title of ‘Who I Am’. Do the collages created reflect who we are and how we feel about ourselves.
Appendix 2:

Focus Group Discussion Guide

Student Focus Group session 2

Introductory activities

1. Re establish ground rules and introductions.

2. Ask children to think about themselves and what we talked about in introductions last session. How would we describe ourselves, likes, dislikes, friends, interests who we are?

Transition questions

1. Place in the centre of a circle various objects used in activity sessions in the outdoor learning program.

2. Ask students what they see and what does it make them think of?

3. Each student is collect one piece and describe it and think about an experience or activity it makes them think of, others may then contribute or add to it in discussion.

Key Questions

1. Students on paper draw a map of their journey from school to the outdoor program and back, include pictures or words that describe activities/feelings/behaviours or emotions.

2. Along the bottom of the map draw a line to show highs and lows of feelings about self along the journey of the program.

3. Share the pictures and graphs and discuss thoughts and images produced.
Author/s: CUMMING, FIONA

Title: A breath of fresh air: social marginalisation and wellbeing. Exploring an outdoor pedagogical approach to learning to promote self-esteem and engagement

Date: 2013


Persistent Link: http://hdl.handle.net/11343/38179

File Description: A breath of fresh air: social marginalisation and wellbeing. Exploring an outdoor pedagogical approach to learning to promote self-esteem and engagement

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