Promoting equitable and alternative early learning opportunities through Outdoor learning: A case study of the Bush School Project in Western Australia

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Declaration

I, Betty-Mai Edith Sofa, declare that this dissertation is my own account of my own research. It contains as its main content work which has not been previously submitted for a degree at any university.

Signature: Date: 16th July 2014
Abstract

Following the deterioration in academic performances, unsustainable development, community detachment and increasing trends in social and emotional difficulties, several countries have and are investing resources to provide young children with outdoor learning experiences. Despite the global rise of outdoor learning research in the last two decades, the outdoor is still an underutilized context for learning. This study explored outdoor learning in a Western Australian context and it is particularly interested in whether an outdoor learning pedagogy can respond to disparities in learning outcomes and offer alternative early learning opportunities. It specifically examines the outdoor learning experiences that the Bush School Project provides to a group of Aboriginal and non–Aboriginal Year One pupils.

A case study approach was used: field observations were carried out over three half days; two informal interviews were conducted, one with an Aboriginal Elder and another with one of the Bush School facilitators, plus several small informal conversations with class teachers and children on site. Existing data was also utilised where relevant. The data gathered was analysed using content analysis. The study revealed that the Bush School project focused mainly on the learning and development of the Aboriginal pupils with an emphasis on cultural identity and wellbeing. The outdoor learning experiences involved Aboriginal children in deepening their cultural knowledge. Taking into account that traditionally Aboriginal people had a close connection to nature, referred to as ‘country’, learning in the outdoors enabled these Aboriginal children to connect with their culture on country. The outdoor learning experiences also provided the Aboriginal and non-Aboriginal pupils with opportunities to sharpen their social skills, to connect to and understand the curriculum in the outdoors, and how to protect and appreciate the environment.
First and foremost, I want to praise the Lord Almighty for his blessings shed upon me and my family throughout the duration of my course and my life so far. I dedicate this dissertation firstly to my daughter, Leyhla Sofa, who has refuelled my passion and interest in the field of early childhood. This dissertation is my gift to my parents, who have given me the best childhood ever and who have always gone extra miles to ensure that I am secured, loved, protected, and supported. I want to thank my husband, who has showered me with unconditional love and support. I am and will be forever grateful as it is not easy to be a full time parent and a full time postgraduate student.

To my sisters for being my source of inspiration, encouragement and motivation. I am equally grateful to all my Seychellois and International friends, for their support.

Special mention goes to Bridge Water Primary school in Perth, the year one pupils, the Aboriginal Elder and all the class teachers including the Bush School research team.

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Introduction

The contemporary education system is regarded as an institution that actively reproduces inequalities for it focuses largely on academic achievement rather than on the social and cultural development of students (Tilly, 2005; Cavicchioni & Motivans, 2001; O’Keefe, Olney & Angus, 2012). As a result, it further impedes the ability of many students to succeed, especially those coming from minority groups (Cavicchioni & Motivans, 2001; O’Keefe, Olney & Angus, 2012). This work situates itself in an Aboriginal Australian context. It discusses the potential of outdoor learning pedagogy in providing access to knowledge and encouraging the development of skills not offered within the traditional school context. The Bush School Project piloted at Bridge Water Primary School in a Perth suburb in Western Australia is an excellent case for this. It is a project that adopted an outdoor learning pedagogy designed to reconnect a group of Aboriginal pupils, age 6 to 7, with their culture in nature. The outcome of this study will be translated into recommendations that will guide the development of relevant early childhood educational and community based policies and programs in Australia and the Seychelles, with implications internationally.

The introductory chapter outlines the aims, objectives and rationale of the study. It also presents an overview of the global, regional and national agenda towards early childhood education and development and evidence of inequalities in education. The introductory chapter is followed by a literature review, divided into two sections. The first section discusses the impact of socio-economic conditions on learning and development in the early years. The concept of outdoor learning and its pedagogical approaches are explored. This section also focuses on the link between outdoor learning, children’s rights and Australian Aboriginal culture. Section Two reviews outdoor learning research. Chapter three explains the methodology of the study, it outlines and justifies the research design, methods and provides details of processes undertaken. The fourth chapter presents and analyses the main findings linking these with the literature. The concluding chapter explores the broad outcomes of the study and makes appropriate recommendations.
1.1 Aim

This study aims to explore the alternative early learning opportunities provided by the Bush School Project to the Year one pupils of the Bridgewater Primary School.

Objectives

Therefore, the specific objectives are to:

- Examine the rationale, processes and vision of the Bush School project,
- Identify and describe the outdoor learning context where the Bush School project experiences took place,
- Identify and examine the various types of outdoor learning experiences that the Bridge Water pupils were engaged in, and;
- Propose directions for future outdoor learning research, policies and programs in Australia and the Seychelles and possibly other countries.

1.3 Rationale

This study is necessary for several reasons.

First and foremost, equal access to quality early learning opportunities is an area that this study is deeply interested in for it recognises the critical importance of the first eight years of life as the foundation for future life success. Improving learning and development in the early years is an international agenda as well as one of the national priorities of Australia and the Seychelles, a Small Island State of which I am a citizen.

The rationale of focusing on inequality is because, as stated by UNICEF (2010), global economic growth has failed to narrow disparities between and within nations. What is more, the measuring of national aggregates often showcases statistical successes but masks profound needs and conceals huge and expanding disparities. Even the 2013/2014 Global Education For All (EFA) report emphasises that to provide equitable lifelong learning, countries with achievement and enrolment ratings of 90% and above, should now focus on the 10 % or less lagging behind (UNESCO, 2013a).
Linked to this is the argument that by investing in children, a new development challenge, the capabilities and lives of children and communities can be improved (Sen, 2001; Birdstall, 1999). In that respect, this study is supporting and advocating for person–centred development. As such, this study is another contribution towards the fulfilment of the Post-2015 Development and Education For All (EFA) goals and United Nations Convention on the Rights of the Child (UNCRC), which lobby for increased investment to expand and increase accessibility to quality early learning opportunities across the globe. From an educational standpoint, I am appealing to school worldwide to promote educational experiences that will enable children to grow holistically, and equip them with knowledge and skills that will enable them to function more effectively in the contemporary challenging and unequal world. In sum, the study is advocating for an educational system that focuses on both academic achievement and wellbeing.

By examining the Bush School Project, this study is illustrating how ideas and practices can be appropriately transferred across cultures. The Bush School originates from the Forest School outdoor learning programs in Scandinavia and the United Kingdom. It has however been adapted, with the collaboration of local Aboriginal community members, to fit Australian Aboriginal culture, specifically, the Noongar culture of the South West of Western Australia. As such, this work is responding to previous outdoor learning research that has recommended that future studies attend to the social contexts and importance of involving families and local community in early childhood development (OECD, 2006). Other research has advocated for the promotion and understanding of outdoor learning opportunities in different time, places and geography (Martin & Ho, 2009; Maposas –Kandemiri, Higgins & Mc. Laughlin, 2009). Other studies have equally requested evidence of outdoor learning that is embedded within the school rather than as an isolated package (Rea & Waite, 2009).

The relevance of this study is accentuated by its focus and methods of data collection, which views children as participants and not mere subjects of research. In doing so, it complements other researches that are adopting methodologies that give children the opportunity to communicate their experiences in a variety of ways (Clark, 2007; Clark & Moss, 2005).

The relevance of this study goes even beyond its specific focus. It can be link to global effort to bridge intergenerational gaps. It is demonstrating that the connection between the young and older generation can be reinforced through the transmission of cultural knowledge. In that respect, existing local realities and the challenges of the contemporary world are
recognised and respected as well as local values and local knowledge that promote the development of communities. This work can also be indirectly related to the effort of small island states, like the Seychelles, to promote sustainable development.

1.4  Context

1.4.1 Early Learning Agendas

1.4.1.1 The Global Context

Education is recognised as a vital tool to eliminate the intergenerational transmission of inequalities (Tilly, 2005; Cavicchioni & Motivans, 2001) The importance to improve accessibility to quality early learning opportunities, is at the core of many international agreements such as the UNCRC introduced in 1979 (www.UNICEF.org); the EFA goals and the Millennium Development Goals (MDG) (UNESCO, 2000; UNESCO, 2012); the Post 2015 Development Goals (Britto, 2012) and the World Fit for Children agenda of the United Nations (United Nations General Assembly, 2002). The UNCRC emphasises the survival and development rights of all children (Appendix A), whereas the first EFA goal (Appendix B), requests an expansion and improvement of early childhood care and education and quality lifelong learning opportunities (UNESCO, 1990). Similarly, the third target, linked with the second MDG (Appendix C), approaches education in the early years from an equality stance, and calls on all governments to ensure that every boy and girl are given the opportunity to complete their primary schooling (UNESCO, 2012).

1.4.1.2 Regional Context: Seychelles

Seychelles has responded to that international call, and in 2010 developed an Early Childhood Care and Education (ECCE) framework entitled “Winning for children – A shared commitment (VP Faure, 2013). This framework is supported politically and financially by the Seychelles Government. The Cabinet of Ministers approved it in 2011 and through this the Government of Seychelles had acknowledged that quality ECCE provision will give the child the best possible start in life (VP Faure, 2013, p. 2). Moreover, the Vice President, Mr Danny Faure, led a Seychelles delegation to the first ever UNESCO World Conference on
Early Childhood Care and Education held in Moscow in 2010 (Seychelles Government, 2013). The commitment of the Seychelles government to the early years is further evident in its ability to regroup many partners who work with and for children and develop a 2013 – 2014 National Action Plan for ECCE (VP Faure, 2013). It is noteworthy that since the launch of the ECCE Framework, several mechanisms and structures (Appendix D) have been established to turn the policy into action namely:

- High Level ECCE Policy Committee comprised of government Ministers led by the Vice President
- A national multisectoral National Steering Committee for Early Childhood Care and Education chair by the Minister for Education
- ECCE Sector-based Technical Teams
- A National Early Childhood Care and Education trust fund to mobilise resources to support early childhood and development projects and programs across the country
- ECCE Advisory Council and
- Oversight of the implementation of the early childhood development works falls under the newly created Institute of Early Childhood Development (VP Faure, 2013).

Thus far, achievements related to ECCE in Seychelles include two free years of preschool that have contributed to universal pre-primary enrolment (Leste, 2013). To support the educational investment in the early years, the government has also demonstrated its commitment towards the holistic development of its youngest population by providing free public health care, a range of child protection services and support for the vulnerable ones and their families (Leste, 2013). In spite of progress made, the current early childhood strategy attends more to education than care; therefore it seems to require a balance offering a similar emphasis in the health, nutrition, social and child protection services and equity (Leste, 2013). Moreover, gender disparities in pre-primary and primary achievement have also been identified (i.e. girls outperforming boys) (United Nations Population Division, 2007). Other early childhood areas that require further attention in the Seychelles include provisions for children with special needs, developing training and standards for child minders, provision of educational materials, identifying learning goals and activities for staff in day care centres, conducting surveys and collecting baseline data on ECD provision and making this data accessible for policy makers and researchers (Leste, 2013).
1.4.1.3 National Context: Australia

The Early Childhood provision on the Australian national level is encouraging too. Like the government of the Seychelles, in 2008, the Council of Australian Governments' (COAG) formally recognised the significance of educating the youngest generation through the endorsement of a new National Partnership Agreement on Early Childhood Education (NP ECE ABS, 2013). Subsequently, the Australian Department of Education advocates for universal access to quality education for all children (Australia. Department of Education, 2013b). The commitment of the Australian government to equity for Aboriginal children in particular, is evident as COAG stresses that its target is to “provide access to quality early childhood education for all Indigenous four year olds, including those in remote communities” within five years (ABS, 2013, p. 5). At the same time, the Australian Government specifies that all children need to benefit from 600 hours of early childhood education before commencing full time schooling (Australian Department of Education, 2013b). The National Partnership Agreement on Universal Access to Early Childhood Education stresses that that 600 hours needs to be met by a degree qualified early childhood teacher at a preschool or kindergarten, 12 months before the start of full time school (Australia. Department of Education, 2013a).

There are of a wide variety of public, non-government, not-for-profit and private-for-profit organizations delivering preschool programs in Australia (Davis, 2009; ABS, 2013). They are known as long day care, kindergarten, family day care, play groups and preschool and they operate at the neighbourhood, work or school-based levels (Davis, 2009). The records of the ABS show that in 2012, there were 7,594 service providers (ABS, 2013).

The children residing in the state of Western Australia have not been spared of this privilege. This is so because Western Australia, where this study is situated, has implemented and completed its National Partnership Agreement Plans on early childhood education (NP ECE) (Commonwealth of Australia & the State of Western Australian, 2009). The NP ECE of the State seeks to enhance “accessibility, quantity and quality early childhood education for all Australian children” (Commonwealth of Australia & The State of Western Australian, 2009, p. 2). In their effort to respond to socio-economic challenges, several locally based facilities have been and are still being built to increase access of disadvantaged children to these early learning opportunities (Commonwealth of Australia & the State of Western Australian, 2009). These facilities are complemented by several educational programs such as Best Start.
playgroups or wrap around programs and extension of Outside School Hours Care (OSHC), which aim to support learning (Commonwealth of Australia & The State of Western Australian, 2009).

Even if these Agreement promises that by 2013 “100% of age-eligible children should have universal access to 15 hours kindergarten at their local public school”, it also acknowledges the prevailing learning and socio-economic gaps between the Aboriginal and non–Aboriginal families and children. In response, the agreement makes particular note of the importance of the participation of Aboriginal children in the schooling system (Commonwealth of Australia & the State of Western Australian, 2009). But as the UNESCO 2005 report on children out of school states, our goal should not merely be “to get children in school but to ensure schooling results in good learning outcomes” (p. 11). These learning outcomes are however subjected to a multitude of social and environmental factors (VP Faure, 2013; UNESCO, 2005), an issue which the following section explores.

1.4.2 Learning inequalities

1.4.2.1 The Global context

A 2013 UNICEF brochure, (MDG updates: Accelerate progress for children) notes that the global primary net enrolment ratio has “increased from 85% in 2000 to 91% in 2011” (UNICEF, 2013, p. 3). Nevertheless, since 2004 progress has been slowed and only “three out of four children who start primary school actually finish it” (UNICEF, 2013, p. 3). This remarkable reduction in the number of school aged children is illustrated by Figure A.
Moreover, this increase in the global primary net enrolment ratio hides the growing gulf between the rich and the poor, and children whose school readiness and attainment are being hampered by violence, disability, and other socio-economic factors (UNICEF, 2010; Lake, 2011). The trend of increasing disparities was noted by the EFA report (2012) that traced such inequalities to enrolments in the preschool years, which are still low, for some preschools are either too expensive or not well resourced (UNESCO, 2012). The alarming nature of such inequalities was again stressed upon by a UNICEF (2013) report highlighting that only 400 million children internationally are attending primary school and successfully attaining the minimum level of education; 120 million other children will not even succeed to accomplish grade 4, and another 130 million are failing to achieve lowest learning standards (UNICEF, 2013). The newly released 2013 / 2014 EFA Global Monitoring report equally indicates that 250 million children still do not know how to read and write; 57 million are still out of school; and there still is growing disparities between the number of girls and boys attending school (nine girls for every ten boys) (UNESCO, 2013a). The report also outlines that learning crises are hitting the disadvantaged the hardest (UNESCO, 2013a). Consequently, early childhood education sectors worldwide are encouraged not to focus solely on education but to incorporate health and well-being or in sum, the care aspect in learning (UNESCO, 2013a).
1.4.2.2 Regional context

The total number of children attending or enrolled in primary education compared to the total number of children of primary school age derived from data provided to UNESCO Institute of Statistics (UIS), Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS) are expressed as percentage (UNICEF, 2010). So, despite disparities between males and females in terms of pre-primary and primary school achievements and other areas needing more attention mentioned in the preceding section, the overall enrolment rate for the Seychelles is above 95% and the primary school net enrolment and attendance for 2003 – 2008 was at 99% (UNICEF, 2008). The Seychelles’ rate is comparable to that of other countries in the south west Indian Ocean: Mauritius (95%), but excellent in contrast to Comoros (73%), Madagascar (76%) and other African countries: Zimbabwe (88%), Mozambique (81%), and Kenya (76%) (UNICEF, 2010). Even though these rates are portraying an almost perfect picture of preschool and primary school enrolment in the Seychelles, the study remains vigilant, as UNICEF (2012) warns that national aggregates often hides evidence of profound disparities, such as limited opportunities for children living in poverty, hence the need to attend to the 5% lagging behind.

The above cautionary statement is understood when one considers the results of a UN investigation into child-related inequalities conducted in the south west region of the Indian Ocean, which the Seychelles forms part of, together with Madagascar, Comoros, Mauritius and Reunion (UNICEF, 2010). The UNICEF used the guiding principles of the Convention on the Rights of the Child (UNICEF, 2010) to identify, understand and analyse seven indicators of deprivation, namely health, nutrition, shelter, education, participation, expression and water and hygiene, that children may be exposed to in these five countries (UNICEF, 2010).

As indicated in Figure B below, the severity of inequalities that children are subjected to in the Seychelles is remarkably low, and to some extent non-existent compared to the other four countries in that region (UNICEF, 2010). The analysis by UNICEF demonstrated that a small percentage of children in the Seychelles lack equitable access to shelter (0.2%) and information (0.1%) (UNICEF, 2010). In comparison, children in Mauritius are deprived, although by a small percentage, of all seven indicators (UNICEF, 2010). In Madagascar, the percentages of deprivation are much higher across all seven indicators (UNICEF, 2010).
Following the specific focus of this study on learning inequalities, it is interesting that the UNICEF found that 33% of children in the south west Indian Ocean region are severely deprived of equitable access to education (UNICEF, 2010). The highest proportions come from Comoros (39.8%), followed by Madagascar (35.1%) and Mauritius (3%) (UNICEF, 2010). Seychelles and Reunion had nil (UNICEF, 2010).

Figure B: Other indicators of deprivation of children living in the South West Region of the Indian Ocean

(UNICEF, 2010, p. 53)

It is vital to highlight, nonetheless, that the above statistics has been calculated based on available data provided by the countries in question. To provide an accurate picture of child-related inequalities in this region, UNICEF had to develop other indicators of deprivations that match those set globally (UNICEF, 2010). This renowned international body clarifies that this was necessary because analyses based on child-related inequalities had not been previously conducted by some countries like Mauritius, Reunion and Seychelles (UNICEF, 2010).
1.4.2.3 National Context: Australia

The primary school net enrolment rate for Australia during the period 2003 to 2008 was 96%. This is a particularly encouraging percentage compared to other countries such as New Zealand (99%), Mexico (98%), China and Uruguay (100%) (UNICEF, 2010).

Whilst the national enrolment rate is very high, there are disparities between the enrolment of the Aboriginal and non–Aboriginal children (ABS, 2013; De Maio, Zubrick, Silburn, Mitrou, Dalby, Blair, Grifffin, Milroy, 2005). According to the Australian Bureau of Statistics, the enrolment rate for Aboriginal children has varied markedly in the last decade (ABS, 2013). In general, the number of Aboriginal and Torres Strait Islander children enrolled in a preschool program or primary schools were highest in Remote and Very Remote areas of the Northern Territory; in the Inner/Outer Regional areas of New South Wales, Victoria, Queensland and Tasmania; and in the major City areas of South Australia (ABS, 2013). Enrolments of Aboriginal and Torres Strait Islander children were more evenly spread in Western Australia (ABS, 2013) and, according to records of the Australian Bureau of Statistics, enrolment rates reflect the distribution of the Aboriginal and non-Aboriginal population across areas.

The 2010 records of the Australian Curriculum, Assessment and Reporting Authority (ACARAS) illustrated in figure C, further highlight these disparities and the minority status of Aboriginal students in Australian primary schools. The figure demonstrates that there are only 3% of Australian primary and combined schools that have over 91% of Aboriginal enrolment, whereas the highest percentage of primary and combined schools (46%) have only 1–5% of Aboriginal enrolments (O’Keefe et al., 2012).
Moreover, ABS records show that in 2013, there were 280,908 children attending a preschool program in Australia (ABS, 2013). Of those, 12,970 were Aboriginal and Torres Strait Islander children (ABS, 2013). Moreover, 71.9% of those Aboriginal and Torres Strait children were enrolled in a preschool while 25.5% were enrolled in a preschool program within a long day care provider (ABS, 2013). Tasmania had the highest proportion of Aboriginal children enrolled in preschools (97.7%), closely followed by Western Australia (97.6%) and the Northern Territory (96.6%), whilst Queensland had the highest proportion of enrolments in preschool programs within a long day care (52.9%) (ABS, 2013).

The ABS notes nonetheless, that the interpretation of these figures should take into account that the term “preschool” was not defined for respondents. It is probable that the diverse ways respondents understood the term “preschool” impacted on the data collected (ABS, 2013). Additionally, as UNESCO (2005) claim, collecting and analysing data on children age five years and below who are attending school is complicated because communities and families alike often understood school readiness differently.

Furthermore, amongst a list of significant issues highlighted in the 2012 - 2013 annual report of the Australian Department of Education was the challenge to close the achievement gap

<table>
<thead>
<tr>
<th>Percentage of a school’s enrolment that is Indigenous</th>
<th>School frequencies</th>
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<tr>
<td>0</td>
<td>20</td>
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<td>1-5</td>
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<td>91-100</td>
<td>3</td>
</tr>
<tr>
<td>All</td>
<td>100</td>
</tr>
</tbody>
</table>

(O’Keefe et al., 2012, p. 10)
between the Aboriginal students and their non-Aboriginal peers (Australia. Department of Education 2012-2013; O’Keefe, Olney & Angus, 2012). This gap has persisted since 1970s and despite the effort of a succession of governments, none has been able to halve the achievement gap between the Aboriginal and non-Aboriginal children (O’Keefe, Olney & Angus, 2012).

Figure D: Percentage of Aboriginal and Non-Aboriginal student achieving national minimum learning standards 2008 - 2011

(O’Keefe, Olney & Angus, 2012, p. 15)
The work of Cooke, Mitrou, Lawrence, Guimond and Beavon (2001) explores the trend of extreme disparities between Aboriginal and non–Aboriginal people in Australia, United States, Canada, New Zealand and many other countries from 1990 to 2000. While, on face value, these countries had the top HDI ranking, the Aboriginal people residing there have much poorer health and social conditions (Cooke et al., 2007). These social, health and economic differences created a gap in three indices: life expectancy, educational attainment and income, that were combined into a single Human Development Index (HDI) measure (Cooke, Mitrou, Lawrence, Guimond & Beavon, 2007).

On the one hand, the educational difficulties in Australia, and what the above authors called “unsettling evidence” (Cooke et al., 2007, p 1), stem from the fact that many Aboriginal children have inherited a burden of illnesses that are hovering around and passed on to generation after generation (De Maio et al., 2005). As one Aboriginal education worker expressed “where our Aboriginal children live is not a safe environment. There are drunk, house parties and violence” (O’Keefe et al., 2012, p. 41). This is primarily attributed to many government policies such as forced separation from natural families or relocation from traditional land or ‘country’ (De Maio et al., 2005), that have impeded their rights and cultural identity (Cooke et al., 2007). The Western Australian Aboriginal Child Health Survey note that out of

“29, 800 Aboriginal and Torres Strait Islander children and young people living in Western Australia” … around “40. 9% were living in households… where a carer or a carer’s parents… were forcibly separated from their natural family” or forced to relocate from “traditional country or homeland” (De Maio et al., 2005, p. 31 – 32).

Despite various child protection inquiries today, Aboriginal and Torres Strait Islander children are still being removed from their home into out of home care at incredibly high rates, 10 times higher than that of non – Aboriginal children (SNAICC, 2013). The detrimental effects of these governmental policies are more significant considering that many Aboriginal children were and still are being separated from their natural families at five years old or younger (Bringing them Home report, 1997). As it will be emphasised later in the thesis, the social and emotional stability of a child relies heavily on the ability and opportunity to form secure and strong attachment to parents and other caregivers and the provision of consistent care and support in the first eight years of his or her life (Young, 2002; Naudeau et al., 2011). Additionally, a later research by O’Keefe and colleagues found
that the most pressing obstacles impeding educational achievement of most Aboriginal children are school absences, lack of out-of-school support and inability of the school programs to respond to the diverse needs of its students (O’Keefe et al., 2012).

To address these disparities, from 1989 to 2020, a succession of Aboriginal educational policies has been and will be developed (Appendix E). Amongst those are funding opportunities launched in 2013, to enhance the literacy and numeracy skills of failing students (Department of Education, 2012-2013). Moreover, in Western Australia, a range of attendance and engagement initiatives are being trialled to improve the school attendance and retention of Aboriginal students, notably the Follow the Dream and the Clontarf Academic Program (Department of Education, 2012-2013). The Aboriginal Innovation School Project is also supporting students with educational challenges by connecting children and their families to services in the community (Department of Education Annual report, 2012-2013). The Department has also implemented the Investing in Focus Schools Project that attends to "school attendance academic achievement and increased student and parent engagement" (Department of Education Annual report, 2012-2013, p. 13). This is a two year Commonwealth funded program that only supports selected schools to attain the actions specified in the 2010 – 2014 Aboriginal and Torres Strait Islander education plan (Department of Education Annual report, 2012-2013). The 2010 – 2014 education plan identifies national, systemic and local level action in six priority domains:

• Readiness for school
• Engagement and connections
• Attendance
• Literacy and numeracy
• Leadership, quality teaching and workforce development
• Pathways to real post-school options

Financial support from the Commonwealth has also enable Western Australia to provide 26 Aboriginal kindergartens in a range of locations, and to maximize attendance buses are provided to and from these kindergartens (Commonwealth of Australia & the State of Western Australian, 2009). Further, processes to reclassify other kindergartens as Aboriginal kindergartens are ongoing too (Commonwealth of Australia & the State of Western Australian, 2009). It is also encouraging to note that a policy is in place ensuring that “an early childhood teacher and Aboriginal and Islander Education Officers (AIEOs)” is included.
“in the staffing profile of all remote community schools” (Commonwealth of Australia & The State of Western Australian, 2009, p. 17). These AIEOs are eligible for advance teacher training via the Workforce Development programs and state wide scholarships (Commonwealth of Australia & the State of Western Australian, 2009).

Furthermore, recognising the multi faceted nature of factors preventing Aboriginal children to access and perform well at school, the Rudd Federal government introduced the ‘Closing the Gap’ initiative that resulted in a National Indigenous Reform Agreement specifying six building blocks indicating where actions were required to reduce Aboriginal disadvantages:

- Early childhood
- Schooling
- Health
- Economic participation
- Healthy homes
- Safe communities and
- Governance and leadership

This new approach acknowledges the interconnectedness of all these factors in contributing to not only Aboriginal people’s access to and attainment of education, but also their social, emotional, physical and economic well-being. To date, many Aboriginal people are homeless, suicidal, abusing substances and living with severe social, emotional and behavioural difficulties (De Maio et al, 2005), issues that will be elaborated further in the next section.

1.4.3 Measuring development in the early years

The areas where Aboriginal children are most affected relate directly to the dimensions of child development that the Multiple Indicator Cluster Surveys explores. The MICS produces “statistically sound and internationally comparable estimate in the areas of health, nutrition, education, child protection and HIV/AIDS” (UNICEF, 2012, p. 5). In 2012 UNICEF reported that, although the measuring of the multiple dimension of early childhood development can be very complicated (UNICEF, 2012), since 1995 it has been working with several countries
to develop a representation of the status of early childhood in the early years using Multiple Indicator Cluster Surveys (MICS (UNICEF, 2012)).

1.4.3.1 Australian Early Development Index (AEDI)

The Equivalence of the MICS in Australia is the Australian Early Development Index (AEDI) that was first rolled out in 2009. It records the proportions of children, who are developmentally vulnerable on one or more, and two or more of the five domains listed below:

- Physical health and wellbeing
- Social competence
- Emotional maturity
- Language and cognitive skills (school-based)
- Communication skills and general knowledge (AEDI Community Profile, 2012)

Apart from providing a snapshot of early childhood development across Australia, the AEDI data, alongside other complementary data sets, is a powerful tool in helping determine community strengths and needs, improving services and planning their delivery for children and families (AEDI Community Profile, 2012). When applied directly to the Aboriginal community, half of the total number of Aboriginal children each year are found to be developmentally vulnerable, a rate twice that of the non-Aboriginal children (ABS, 2013).

1.4.3.2 AEDI Community Profile of Hillof (the targeted suburb)

This study focuses on the outdoor learning experiences provided by the Bush School Project to a group of children attending the Bridge Water Primary located in the suburb of Hillof. Hillof is considered a working class residential suburb in Perth, Western Australia located approximately 11 kilometres from Perth’s central business district. The majority of the children participating in the Bush School Project lives in Hillof or in other suburbs in the same local government Area (LGA). Hillof has a population of 5,529 of which 825 are children from 0 to 9 years of age (ABS, 2011). The population of Hillof is very diverse as 2,462 residents were born in Australia, 2,710 born elsewhere, plus 158 are Aboriginal people, and the Aboriginal status of 254 residents were not stated (ABS, 2011). While 198 family
households have a weekly income range of AUD 1,500 – 1,999, males have a higher employment rate (1,401) than females (1,039), with 566 and 88 looking for work respectively (ABS, 2011).

The status of early childhood development in Hillof is illustrated in appendix F. Even if only 1/8th (98) of the total population of children (825) within the early years range in Hillof were surveyed, compared to the other suburbs in that Local Government Area (LGA), the children of this suburb are the most developmentally vulnerable. According to the 2012 AEDI Community profile, children in Hillof are more vulnerable in communication and general knowledge (25.3%) and least vulnerable in social competence (11.6%). On the national level children in that LGA were found to be overall, (46.3%) of children residing in Hillof and possibly those participating in the Bush School Project are found to be vulnerable in one or more domains and (27.4%) of them vulnerable on two or more domains (AEDI Community Profile, 2012). This is high in contrast to the national average (22% & 10.8), State (23% & 11.2%) and LGA (27% & 12.8%) respectively.

Given that the early years are known as the formative years and foundation for lifelong learning, the need to address these disparities, this justified. Although on a small scale, the Bush School Project aspires to improve the learning outcomes of a group of Aboriginal young children by adopting an outdoor learning pedagogy linked with the Aboriginal culture. In doing so, the project seeks to enhance the cultural pride and resilience of these young Aboriginal children.

1.4.4 Summary

This chapter has outlined the international, regional and national early childhood development agendas. It has equally presented areas where disparities exist on all three levels. Particular emphasis has been placed on the vulnerabilities of the Aboriginal children compared to their non – Aboriginal counterparts in respect to access and performance in the Australian educational system. These vulnerabilities have been associated to past and current Governmental policies that are aggravating not solely the academic achievement of the Aboriginal children but their social, economic and health development as well. The following chapter will further discuss the way several factors magnify inequalities and impede learning
and development in the early years. It will also introduce the concept and benefits of outdoor learning.
Chapter 2 – Literature review

This chapter presents the relevant literature for the study and is divided into two sections. The first section covers the theoretical aspects of the literature. It discusses learning and development during the early years, inequality, and outdoor learning. The discussion also includes other pertinent issues such as the link between children’s rights, the relationship between outdoor learning and Aboriginal culture and wellbeing. The second section reviews previous outdoor learning research. The chapter will conclude with a brief summary.

2.1. Learning and Development during the Early Years

The importance of the early years has been extensively documented in numerous literatures (Mustard, 2002; Naudeau et al., 2011; Britto, 2012; Thomas, 2005; Carnegie, 1994). During this sensitive period, from conception to age eight, children need access to basic health care, adequate nutrition, nurturing and stimulation in a caring environment to develop their physical, cognitive, social and emotional abilities (Young, 2002; Naudeau et al., 2011). Hence, at eight years old, children should typically be able to communicate both verbally and non-verbally, to reach out, grasp objects and climb, remember events and people, distinguish sounds, solve simple problems, explore their surroundings physically or by using their senses, socialize, recognize and tolerate their own and others’ emotions and understand basic numeracy and literacy skills (Britto, 2012; Shah, 2013; Young, 2002; Naudeau et al., 2011). It is precisely those competencies that this study believes will facilitate learning in the outdoors.

There are different theories that explain how children learn. The social learning theory stipulates that new patterns of behaviours can be acquired through direct experience or by observing others (Bandura, 1971). The accurate repetition of behaviour relies on the receipt of immediate reward or punishment (Bandura, 1971). In contrast, the maturation theory posits that learning is a product of biological programming, age norms and preset patterns of behaviours (Gesell, Ilg & Ames, 1949). According to this theory, educators only have to expose children to developmentally suitable and stimulated environments and biology will do the rest (Piaget, 1984). Conversely, the constructivist approach views learning as a complex and non–linear development (Vygotsky, 1978). This approach argues that children should be
active learners, who accept errors, ask questions, make, test and discuss assumptions (Vygotsky, 1978). Throughout this learning process, children reflect, generalise and discuss associations between experiences with more experienced others (Vygotsky, 1978). This study asserts that all these milestones of development and learning theories have their merits. However, it acknowledges that these noted developmental norms are not fixed. This is the case because the rate and nature of growth of children across the globe are highly contextual and are socially and culturally determined (Rogoff, 1990; Fleer, 1995).

The effects of multi-faceted social and cultural contexts on the developing child is central to the concept early childhood development (ECD). The term ECD is used interchangeably with that of early childhood care and development (ECCD), early childhood education (ECE) or early childhood education and care (ECEC) (Ball, 2012). Regardless of the acronyms employed, it is noteworthy that all challenge the belief and traditional approach that education starts with entrance into school (Britto, 2012). Rather, they are advocating that learning begins at birth, thus calling for early childhood care and initial education to be provided by families, communities or institutional programs (Britto, 2012). Bearing in mind the existing challenges worldwide, it is questionable whether families, communities and institutions are adequately equipped to provide that kind of education and care. There are propositions that an outdoor learning pedagogy can provide a learning experience that values both achievement and well-being (Louv, 2005; Sobel, 2008).

### 2.1.2 Outdoor Learning

On one hand, this thesis acknowledges the potential of existing early childhood educational interventions to respond to the learning and development needs and aspirations of children in the twenty-first century. On the other hand, it is inspired by the words of Orr (1994), that knowledge carries with it responsibility and we therefore need to rethink education and review not solely the way learning occurs, but its content as well. So, the present researcher argues that learning in the outdoors can promote learning and development by increasing access to knowledge and skills not offered anywhere else.
2.1.2.1 Overview

Many children in today’s society have, according to Malone (2007 cited by Davis, 2009), been cocooned from outdoor experiences. This is unfortunate, for nature has the capacity to promote the holistic development of children (Louv, 2005; O’Brien & Murray, 2007; Maynards, 2007), inform their lives (Appendix F), providing them with a much bigger world, separate from caregivers (Louv, 2005). Outdoor learning is an experiential process of learning (Adkins & Simmons, 2002) ‘in’, about and ‘for’ the outdoors, and is viewed as the classroom of the future (Learning and teaching Scotland, 2007). In a Danish outdoor program learning indoors, was described as ‘descriptive’ whilst learning in the outdoors was labelled as ‘inquiring’ and ‘explorative’ (Bentsen, Myging & Randrup, 2009).

The importance of providing young children contact with the outdoors has been promoted by the preschools of Reggio Emilia in Italy, where the environment is seen as the third teacher (Davis, 2009). Preschool pioneers, notably Dewey and Frobel, recognise the virtues of learning in natural settings and advocated for a pedagogical approach based on play, learning and work (Hagglund & Samuelson, 2009; Broadhead, Wood & Howard, 2010; Knight, 2011). As a result of natural observations of children in various outdoor settings across different cultures, Sobel (2008) presents seven motifs that described outdoor play of children from diverse socio-economic backgrounds and ethnicity. These include:

- Adventure: activities with a physical challenge
- Fantasy and Imagination: stories, plays, dramatic play
- Animal Allies: children’s inherent empathy with wild and domestic animals
- Maps and Paths: exploring local geographies
- Special Places: forts, cubbies, hiding places
- Small Worlds: miniature worlds that represent aspects of the ‘big’ world
- Hunting and Gathering: treasure hunts, collecting things.
2.1.2.2 Comparisons

It is essential at this point, to clarify the distinction between outdoor learning and outdoor education. To achieve that, this work uses the definition from Dillon et al. (2005), who interpret outdoor education as a process in which educators, students and others take part, and outdoor learning as that learning which accumulates as a result. Over its history, learning in the outdoors has been associated with environmental education that, according to the Belgrade Charter, aims to raise the awareness and concern for environmental problems so that people can individually or collectively work towards solutions (Adkins & Simmons, 2002).

Also linked are terms like place-based, environment, ecological bio-regional education, ecoliteracy and ecological identity programs (Woodhouse & Knapp, 2000; Adkins & Simmons, 2002). Although they have all been developed separately, they all adopt an experiential pedagogy that has geographical, artistic, literary, scientific and historical aspects (Woodhouse & Knapp, 2000).

2.1.2.3 Learning pedagogies of the outdoors

The way children acquire knowledge and develop skills during outdoor learning has the characteristics of two main learning theories: the Experiential and Constructivist plus the affordance theory.

2.1.2.3.1 Experiential Learning

The origin of this theory can be traced back to the experiential work of Dewey, Lewin and Piaget (Kolb, Boyatzis & Mainemelis, 1999). Lewin puts great emphasis on the here and now personal experiences, and on feedback. He reinforces the importance of continuity, goal-directed action and direct evaluation and consequences of that action (Kolb, 1984). In contrast, the Dewey model dwells on the developmental aspect of learning, encouraging us to reflect on what has possibly happened in comparable past situations (Kolb, 1984). In the
model of Piaget, the continuous interaction between the environment and the individual is stressed (Kolb, 1984).

Experiential learning stresses the role of experience in the learning process (Kolb, 1984; Kolb, Boyatzis & Mainemelis, 2000). To be more precise, it is the way knowledge is created through the grasping and transformation of experience (Kolb 1984). Kolb’s model of Experiential Learning Theory (Figure E) proposes two interrelated types of grasping experience, “Concrete Experience (CE) and Abstract Conceptualization (AC), and two modes of transforming experience, Reflective Observation (RO) and Active Experimentation (AE)” (cited in Kolb, Boyatzis & Mainemelis, 2000, p. 3).

Figure E: The experiential learning cycle and Basic learning style

(Kolb, Boyatzis & Mainemelis, 2000, p. 39)

In reference to outdoor learning, it is wise to note that children develop new and expand prior knowledge by observing and reflecting about real and accessible experiences. These reflections are then absorbed and refined into abstract ideas. These concepts enable children to make and test inferences for actions that can later serve as guides in creating new
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experiences (Kolb, Boyatzis & Mainemelis, 2000). However, the decision to use any set of
the learning abilities remains with the learners (Kolb 1984). It depends on the biological
makeup and past experiences of those learners, plus the demands of the present environment
that they are exposed to (Kolb, Boyatzis & Mainemelis, 2000). In the grasping experiences,
for instance, some children may prefer to use their senses to feel the tangible aspects of the
world, while others might prefer to think and analyse the new information provided.
Otherwise, children may actively participate in an activity or simply observe others doing it
(Kolb, Boyatzis & Mainemelis, 2000).

2.1.2.3.2 Constructivist learning theory

In comparison, the Constructivist Learning Theory suggests that development is grounded in
the values and knowledge of an individual as they construct ways of understanding the world
(Kahn, 1999). Hein (1991) wrote of constructivism, which he defines as how people learn,
and the nature of knowledge. It provides them with an opportunity to experiment, make
meaning, problem solve and increasingly acquired more “adequate ways of understanding
their world and of acting upon it” (Kahn, 1999, p. 213). The Forest School, where Bush
School originates, also adopted this constructivist approach as practitioners shape teaching
methods to child led learning (O’Brien & Murray, 2007; Maynard, 2007). Attention is on
what interest the children and lessons are adapted to take account of this (Kahn, 1999). In that
sense, the child is engaged with the natural world and not passively absorbing information.

From a social perspective, Vygotsky (1978) argues that learning is a social process, and
reality and knowledge are socially and culturally constructed. He maintains that meanings are
created when individuals interact with each other and with the environment they live in
(Vygotsky, 1978; Kim, 2001). In fact, one aspect of social constructivism is that without
social interaction with more “knowledgeable members of the society, it is impossible to
acquire social meanings of important symbols systems” (Kim, 2001, p. 5). This fits well with
the Bush School Project, which adopted an outdoor learning pedagogy that requires young
Aboriginal and non-Aboriginal children to engage in social, cultural and environmental
activities under the guidance of an Aboriginal elder. Likewise, learning in Forest and Bush
School programs also takes place as a group and this echoes the fact that learning is indeed a
social activity (Hein, 1991).
2.1.2.3 Affordance Theory

Outdoor learning can also be associated with the work of Gibson. Gibson’s theory of Affordance is apparent as children see the outdoors not only as spaces full of things, but as places and things with functional meaning (Gibson, 1966; Gibson, 1977). Exposure to nature shows children that environmental features offer certain possibilities. Instead, they are much more than their physical characteristics and their textures and shape offer potential for imaginative transformations (Gibson, 1977). In this learning process, children interact with the outdoors almost as a play partner, shaping and transforming it but in turn being shaped by the experiences and interactions it enables too (Tovey, 2007). In essence, the environment is not a space for children to “play in” or “on” but to explore and experiment with (Tovey, 2007, pp. 54-55). In spite of the ability of the outdoors to promote learning and development, there exist multiple challenges at home and in the communities that limit access to the outdoors.

2.1.3 Home and community-based inequalities

Barriers to and disparities in learning and development start early and persist beyond birth. A wide body of literature has indicated an increase in the number of pregnant mothers from low and middle income countries or communities who are stressed, depressed, exposed to violence, conflict, substance abuse, poor nutrition and environmental toxins (Walker et al., 2011; Engle et al., 2011; UNICEF, 2012). Even the 2013 / 2014 Global EFA report has concluded that education in general is under stress for it is influenced by factors such as endless conflicts and effort to reconstruct societies; climate change and natural disasters; demographic shift and loss of culture (UNESCO, 2013a). Exposure to these conditions certainly affects the developing foetus and eventually the child, who are born with developmental and health problems, (Walker et al., 2011). These problems eventually reduce access to education and performance in schools and in other learning opportunities (Walker et al., 2011; UNICEF, 2012).
Britto (2012) rightly claims; children do not grow up in a vacuum. Therefore, the kind of environment that they are exposed to and the types of relationship they have with people in their surroundings determines the types of behaviours they are observing, imitating and experimenting with (Thomas, 2005). The influence of the environment can even counterbalance the proposed timing of the best planned early childhood interventions illustrated in Figure F (Naudeau et al, 2011).

Figure F: Timing matters: The most important ECD interventions by age

(Naudeau et al, 2011, p. 9)
The potential impact of various contexts and relationships on the development of children are recognised by the UN Convention on the Rights of the Child (UN CRC) (UNICEF, 1989) and the extended definition of the first EFA goal (UNESCO, 2013b), and are reflected in the Ecological System Theory (Bronfenbrenner, 1979). In line with that theory, the nature of children’s development and the rate with which they develop is heavily influenced by a series of interconnected layers of their environment (Bronfenbrenner, 1979; Thomas, 2005). These layers are referred to as micro systems (home, school, peer group); mesosystem (neighbourhood); and exosystem (parents workplace, school board); macro system (cultural milieu) and lastly, events or physiological changes (chronosystem) (figure G, Bronfenbrenner, 1979, p. 3).

**Figure G: Ecological system theory of human development**

![Ecological system theory of human development](image)

**Bronfenbrenner, 1979, p. 3**

It is crucial to emphasize, that children only have direct contact with the environments in their micro system settings. Worth noting too is the fact that these interactions are two-way, and children influence and are influenced by agents in their environments (Thomas, 2005;
Bronfenbrenner, 1979). Although a child may not have direct contact with the environments in other systems, the linkages between the other systems have an impact on their development. The behaviours of children and their capacity to assimilate relevant knowledge for instance are clearly influenced by the responsiveness of, communication, and attachment to parents or guardians (Walker et al., 2011). family income and presence or absence of both or one parent (UNICEF, 2012).

From an Australian stance, the learning and development of children, particularly Aboriginal children, is compromised by several governmental policies such as the one that separated Aboriginal children from their natural families or relocated them from traditional homeland or ‘country’ (De Maio et al., 2005). The practice of forced separation of Aboriginal children from their families began in the 1800s and was in operation until well into the 1960s and affected Aboriginal children in all regions in Australia (De Maio et al., 2005). It took three general forms: putting children into government run institutions; adoption of children into white families; and fostering of children into white families” (De Maio et al., 2005, p. 1).

In an exploration of obstacles to the success of the Aboriginal children in the Australian education system, O’Keefe et al (2012) found that “teasing, bullying, no food, no clothes, no shoes and no bus, too cold and too wet were reasons given for not attending school” (p. 39). School principals interviewed in that study noted that many children were not interested in attending school and parents would not make them. All in all, many Aboriginal people do not value education and fail to see it as a ticket for the future. The lack of consistent out-of-school support further aggravates the situation (O’Keefe et al., 2012). Conversely, respondents to the study in discussion, claim that many Aboriginal children found school socially demanding and struggled to cope with the routines. One teacher states that they were

“Generally opinionated, and have poor manners, the attitudes they bring from home conflict with school language, swearing, disrespect for person in responsible role. The minute you try to get them to do something that they do not want to do, it becomes a war zone” (O’Keefe et al., 2012, p. 46).

In the eyes of many Aboriginal children, these are real misfortunes. As one Aboriginal girl expressed, “you get blamed for the wrong doing of your parent” such as for not going to school because they have to look after a younger sibling (O’Keefe et al., 2012, p. 41).
Using a Strength and Difficulties Questionnaire (SDQ), De Maio and colleagues outline the degree to which these governmental policies affected the social and emotional well-being of Aboriginal children and their carers. It is important to note that a similar questionnaire was also administered to a group of non–Aboriginal children and families (De Maio et al., 2005). The questionnaires measured:

- Emotional symptoms
- Conduct problems
- Hyperactivity
- Peer problems
- Prosocial behaviour

As displayed in Figure H below, the effects of these governmental policies were found to be higher on children aged four to eight (ranging from 25% - 29%) compared to those age 9 years onwards (18% - 25%).

**Figure H: Proportion of Aboriginal children age 4 – 17 years, who are at high risk of clinically significant emotional or behavioural difficulties.**

(De Maio et al, 2005, p. 24)

Apart from highlighting the most vulnerable age group, the study of De Maio and colleagues also reported the most marked emotional and social difficulties faced by these Aboriginal children. Those living in homes with carers who were separated from natural families by a mission, the government or welfare are as illustrated in Figure I and J, reported a history of or
current difficulties related to substance abuse, conduct and peer problems and hyperactivity to name a few (De Maio et al.).

Figure I: Proportion of Aboriginal children age 4 – 17 years who have drunk alcohol or used other drugs in the past six months

(De Maio et al. 2005, p. 42)

Figure J: Proportion of Aboriginal children aged 4 – 17 years, who are at a high risk of clinically significant emotional and behavioural problems

(De Maio et al. 2005, p. 43)
The trend of emotional and behavioural difficulties faced by Aboriginal children is highlighted further by data comparing their level of risk to that of the non-Aboriginal children. According to figure K, in 2005, around 25% of non–Aboriginal male and 23% non-Aboriginal females were at high risk of emotional and behavioural difficulties. The percentages of Aboriginal children found to be at risk were slightly higher at 28% and 20% for males and females respectively (De Maio et al., 2005). In my opinion, when considered together, the figures demonstrate the vulnerability, prevailing social disparities and hardship of the Aboriginal children. As has been emphasized earlier, the first eight years are a very sensitive period, and any sort of instability can delay development and impact on the interest and ability to learn.

Figure K: Proportion of Aboriginal and non–Aboriginal children aged 4 – 17 years assessed to be at a high risk of clinically significant emotional and behavioural difficulties by sex

(De Maio et al. 2005, p. 25)
2.1.3.1 Linking Home and Community-based inequalities to outdoor learning experiences

There are similarities between the factors which trigger home and community based inequalities and those which are barriers to children having outdoor experiences. In a nationwide American poll, for example, children reported that they spend a considerable amount of their time indoors engaged with electronic media and computers (The Nature Conservancy, 2011). Moreover, 2400 mothers from 16 nations, from diverse socioeconomic backgrounds, in urban to rural areas, in developed to developing countries, reported that 72% of their children considered watching television as the main activity they engage in outside of school (Singer et al. 2009).

Additionally, differences in the socio-economic status influences the type of neighbourhood a family can afford to live in. The American sociological analysis of Wrigley and Dreby (2005) indicate that children from low income households, for example, are more likely to live in communities concentrated with poverty, higher rates of crimes, high school dropouts and unemployment amongst working age males, plus a higher number of households led by females. Parents are therefore over protective and tend to restrict children’s physical exploration of their surroundings (Thomas, 2005). As a consequence, the opportunities to learn from the outdoors are missed; children are deprived of the experiences to observe, listen, smell, and manipulate objects and knowledge of properties (Thomas, 2005). As far as the current researcher is concerned, such missed learning opportunities can also affect the wellbeing and personal autonomy of children. In the next section, I explore the relationship between children and nature and the impact of this on wellbeing and health.

Studies exploring the diminishing contacts children in Norway, America and London have to nature reported that fear and concern for the safety of children were noted as common barriers, determining the duration and nature of outdoor experiences (Godbey, 2009; Gleave, 2010; Skar & Krogh, 2009). Other highlighted barriers are proximity of outdoor space to the family home, and playground design (Godbey, 2009). Declining community spirit and disunity amongst community members were emphasised as well, as it led parents to be more cautious of where and with whom their children interact (Gleave, 2010). The disconnection amongst community members was equally evident in the reports of children, who claimed that they cannot and were not allowed to play outside because they have fewer acceptable playmates in their neighbourhood (The National Conservancy, 2010). This was worse for
families with an only child (The National Conservancy, 2010). The impact of income on learning in the outdoors was also apparent in responses that indicated that accessibility to outdoor spaces was associated to the possession of transport (The National Conservancy, 2010).

Barriers to outdoor learning in the community was further evident in the results of the Grassroots leadership survey that the Children and Nature Network (C&NN) conducted in 2009 and 2011 throughout the US, Canada and United kingdom (Fleming, 2012). The main aim of this survey was to identify the scale and scope of community based, regional, and state initiatives that are reconnecting children and families to nature (Fleming, 2012). They reported that although there is an increase in the number of participants, the number of grassroots initiatives has declined (Fleming, 2012). Additionally, overall management, continuity and reliability of funding were other major concerns for nature–based initiatives (Fleming, 2012).

2.1.3.2 Outdoor leaning and the Aboriginal culture

This study focused on Western Australian outdoor learning experiences provided by the Bush School Project. The main participants of the Project were a group of Year One Aboriginal pupils. With the assistance of an Aboriginal Elder, the Project aspired to strengthen the cultural identities of these pupils by reconnecting them to culture, in nature. This is fitting because the Aboriginal people have a significant spiritual connection to the land known as ‘country’, which is explained by Rose (1996) cited in (Lee-Hammond & Jackson – Barrett, 2013, pp. 7 - 8)

Country is a place that gives and receives life. Not just imagined or represented, it is lived in and lived with… People talk about country in the same way that they would talk about a person: they speak to country, sing to country, visit country, worry about country, and feel sorry for country, and long for country. People say that country knows, hears, smells, takes notice, takes care, is sorry or happy… country is a living entity with a yesterday, today and tomorrow, with a consciousness, and a will toward life. Because of this richness, country is home, and peace; nourishment for body, mind, and spirit; heart’s ease.
The connection of Aboriginal people to ‘country’ is significant, not solely for the development of their cultural identity, but for their social and emotional well-being too. Aboriginal people prefer the term ‘social and emotional wellbeing’ to ‘mental health’ as it is broader and holistic (Social Health Reference group, 2004). It incorporates the importance of connection to land, culture, spirituality, ancestry, family and community” ( holistic (Social health Reference group, 2004), which are also protective factors and sources of resilience and recovery in the face of adversity (Kelly, Dudgeon, Gee & Glaskin, 2009; Social Health Reference group, 2004).

Linked, is the active involvement of the Aboriginal elder. This is vital because Elders in the Aboriginal culture traditionally had the duty to pass on key knowledge and skills to “Koolunga (children)” (Lee-Hammond & Jackson – Barrett, 2013, p 5). This transmission of knowledge occurred “in the outdoors and was based around respect for and care for ‘country’ and the lessons needed to survive and thrive in a harsh climate” (Lee-Hammond & Jackson – Barrett, 2013, p 5). It is documented that this passing on of knowledge emphasised learning by doing or modelling by adults, instead of discussing the procedures (Coombs, Brandl and Snowdon (1984) cited by Lee-Hammond & Jackson – Barrett, 2013).

The rationale of the Bush School Project is further heightened by the fact that back in the days of colonisation; Aboriginal people were prohibited from transmitting cultural knowledge or enjoying their Aboriginality. In the 1997 Bringing them Home report, it is stated that many Aboriginal children who were forcibly separated from their natural families or removed from ‘country’ were raised to believed that their parents did not want them or had abandoned them. The report also notes that many who were seen or heard speaking the Aboriginal language, or practising any aspect of their culture, were severely punished (Bringing them Home Report, 1997). Consequently, many chose to reject their Aboriginal identity to escape mistreatment (Bringing them Home Report, 1997). In sum, it is clear that for Aboriginal children and people in general, diminished contact with the outdoors stemmed from a lack of awareness of the value of the outdoors to their identity, and social and emotional wellbeing. Taking into account that missed opportunity, the Bush School Project seeks to teach the Year One pupils of Bridge Water Primary School, and specifically the Aboriginal pupils, that they are they are “parts of nature not its master” (Elliot & Davis, 2009, p. 73) and that nature should not be “silent or silenced” but given a “voice” (Elliot & Davis, 2009, p. 72).
This reinforces another school of thought: that of Eco psychology. The field of Eco psychology is interested in human happiness, healing, search for meaning and responsibility to others, and extends to the attachment of human to the non-human world (Fisher, 2013). The various outdoor learning experiences provided by the Bush School respond to Fisher’s recommendations (2013) pertaining to the need to repair the split between mind and nature, human and earth; fix the crippled consciousness that is the cause of many environmental crises; to talk about the human – nature relationship, emphasising that human is part of nature, and clarify how one should relate to nature (Fisher, 2013). Orr (1994) calls it restoration of local cultures and recovering a sense of place, places we can see, touch, smell and experience.

2.1.4 Educational inequalities

In view of the above, the ability of the education system to promote effective learning and development has been questioned by several authors (Cavicchioni and Motivans (2001; Thompson, 2010; Lee-Hammond, 2012). Cavicchioni and Motivans (2001) posit that the education system generates inequalities because in many schools teaching is done in contexts that are not conducive for learning and with shortages of learning materials. Consequently, upon completion many students are left without basic skills (Cavicchioni & Motivans, 2001).

2.1.4.1 Educational experiences of the Aboriginal Students

In Australia, for example, a 2013 report of the Secretariat of the National Aboriginal and Islander Child Care (SNAICC) claims that providers of family services for Aboriginal people, including education, lack cultural competence. That same report adds that the first school experiences of Aboriginal children and families have implications for educational and broader development outcomes for future engagement with educational institutions. Consequently, Aboriginal and Torres Strait Islander children typically experience higher level of vulnerability and exclusion in early childhood, particularly low enrolment and attendance rates in preschool and early childhood programs (SNAICC, 2013).
The SNAICC report is further clarified by a 2012 study examining the obstacles to success for Western Australian school students (O’Keefe et al., 2012). O’Keefe and colleagues found that absenteeism and lateness were the major problems. Teachers participating in that study explained that daily changes in class membership made it hard to provide necessary support as children come and go, with no indication of when they will return. Many of those with low attendance rate were often “not school ready”, making teaching harder because “when you put too much pressure” on them, they “take off” (p. 40). It should be noted that such reports relate to all students but they are generally more about the behaviours of Aboriginal students.

Findings in the study of O’Keefe et al (2012) also show that the ways Australian schools delivered their program are in themselves obstacle to learning, failing to adequately meet the diverse need of the students. A few teachers even noted that they were not prepared to deal with such issues and that the absence of a whole school approach and lack of investment in relevant professional development discouraged them. Subsequently, even though school principals claim that teachers should look, listen then act, remain flexible, know their pedagogy and their children, recruiting and retaining teachers is still a challenge for the education system in Australia (O’Keefe et al., 2012).

According to Orr (1994) the actual education is boring, having been reduced to memorization divorced from lived experiences, endless rules, and overstressing grades. As a result, attitudes towards teaching have changed (Thompson, 2010) and this can impact on how children construct and operate in their adult world (Lee-Hammond, 2012). In a somewhat sad tone, Orr adds that the current education system is emphasising “theories, not values; abstract rather than consciousness; neat answers instead of questions; technical efficiency over conscience” (1994, p. 8).

### 2.1.4.2 Educational inequalities and outdoor learning experiences

Educational inequalities can also be linked with opportunities to learn in the outdoors in a school setting. According to Dyment (2005) and Tovey (2010), the most widespread influential factors inhibiting teachers from providing access to outdoor learning opportunities
were lack of confidence and training to teach in the outdoors. They equally reported that the current curriculum restricts them and leaves little room and time to adopt and assess outdoor learning. Lack of funding, support and the long list of responsibility that teachers already have were other highlighted barriers (Dyment, 2005; Tovey, 2010). Tovey (2010) also found three types of attitudes that he categorised as risk aversion and anxiety evident in responses like “that wouldn’t be allowed” (p.85) or “… children miss out but we can’t take any risks with children’s safety” (p85). A sense of powerlessness was remarkable in the responses such as “we were told to get rid of the slide cause it was too high. Now we have a small plastic one which the children hardly use. It’s so boring but who am I to argue?” (p.86). Lastly, some staff still encouraged children to take risks rather than avoid them; believing this was an opportunity to learn and problem solve (Tovey, 2010, p. 86).

Even when the outdoors was brought closer to the school through Greening School Compound Projects in Southern Ontario, Canada, these barriers continued to limit learning opportunities. There, teachers felt teaching indoors provided more familiarity, security and sense of control compared to the open spaces of the outdoors (Dyment, 2005). Such responses reflect that teachers felt they needed to master the subjects and prepare for anything. This is in direct conflict to the experiential learning pedagogy that guides outdoor learning.

It is evident from this brief discussion that the provision of diverse learning opportunities is dependent on the characteristics and stability of the home, school and the influences of various other factors in the community and society. There are nonetheless other issues worth considering when expanding access to, and eliminating disparities in early childhood development interventions.

2.1.5 Quality early childhood development (ECD) interventions

The importance of quality in early childhood development (ECD) or early childhood education and care (ECEC) was taken up by the Organisation for the economic co-operation and development (OECD), 2012. Findings from international literature reviews were used to develop five policies or key quality levers. These five policies are recognised by sponsors of ECD, for example, Save the Children, who utilised these as conditions to assess the quality of
their early childhood development interventions implemented in many low and middle income countries (OECD, 2012). The levers are:

- Policy Lever 1: Setting out quality goals and regulations
- Policy Lever 2: Designing and implementing curriculum and standards
- Policy Lever 3: Improving qualifications, training and working conditions
- Policy Lever 4: Engaging families and communities
- Policy Lever 5: Advancing data collection, research and monitoring

(OECD, 2012, p. 9)

Additional comments on the quality and outcomes of the early childhood development programs were put forward by Dahlberg, Moss & Pence (1999) who contend that early childhood programs, projects and interventions are forums of social, cultural, political and economic significance, where children and adults participate together. They are equally places for children to live their childhoods and are permanent features of the community offering many opportunities and possibilities. They argue that such opportunities should not have “fixed durations, known purposes and predetermined outcomes” (p. 75). They essentially see early childhood projects as a means of inclusion; for they create opportunities for the exercise of democracy and freedom through learning, dialogue and critical thinking and by offering a range of social support for parents, providing mechanisms through which we can fairly redistribute resources towards children as a social group (Dahlberg, Moss & Pence, 1999).

Regardless of the locations of these early childhood development opportunities, Dahlberg and colleagues (1999) advocate that those developing programs for young children need to consider these four ethos:

1. Creating spaces that enable children to construct their knowledge and identity (which is also key in the Bush School Project)
2. Constructing new public discourses about early childhood
3. Establishing and strengthening relationships between children, between adults and between children and adults, and
4. Providing care for children that enables parents to participate in the labour market

2.1.6 Children as right holders

Quality early childhood educational programs guarantee the survival and development of all children; two of the four main principles of the Convention on the Rights of the Child. In essence, by focusing on the needs, interests and abilities of the child, the pedagogy and possible outcomes of outdoor learning also promotes the protection and participation rights of that child (www.UNICEF.org; O’Brien & Murray, 2007; Knight, 2009).

As children engage in these new outdoor learning experiences, they are exercising their participation rights that will undoubtedly expand their knowledge on the environment, develop a stronger relationship with and appreciation for the place where they live and with the people in their surroundings (Martin & Ho, 2009; Elliot & Davis, 2009). In the context of this study, the outdoor learning experiences provided by the Bush School project provided the Aboriginal children with opportunities to learn about and develop an appreciation for their cultural identity (Lee-Hammond & Barrett – Jackson, 2013), to become more resilient (Page & Vella-Brodrick, 2009) and be able to voice out their concerns and be respected as well as enhance interest in and performance at school.

A rights-based approach to learning rejects the notion that people, particularly children living in poverty, should be regarded as mere passive recipients of any services or programs (Green 2012). It instead, encourages their active involvement in their own development, thus “transforming the self-perpetuating vicious circle of poverty, disempowerment and conflict into a virtuous circle in which all people, as rights-holders, can demand accountability from duty-bearers” (Green, 2012, p 18).

In spite of its importance to the child, the Convention has also been subjected to countless controversies that see it as weakening parental authority. According to some, children can use the Convention to seek divorce from their parents (Minow, 1995). It is also seen as a manipulation of popular understandings of children and childhood (Dolgin, 1997).

The issue of children’s rights weakening the authority of parents is debatable in the context of this study, as the parents have to consent to their child’s involvement in the Bush School.
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Project, in the first instance. In a similar vein, previous studies have claimed that one of the reason that children lack exposures to the natural world and are likely to develop what Louv (2005) calls ‘nature deficit disorder’ is because parents do not see the importance of bringing children in the outdoors. In this regard, the right of the child to benefit from outdoor learning infers a responsibility onto parents. As Green (2012) contends; having a right to something is greater than simply requiring or wanting it. It implies that someone else, whom he calls ‘duty bearers’, need to “respect, protect, and fulfil the rights of ‘rights-holders’” (p. 25).

Nevertheless, the purpose of this study agrees that rights alone are not enough, and in the words of Indian economist Amartya Sen, individuals need capabilities (Birdsall, 1999). In the context of this study, capabilities would allow the children to exercise their rights to determine what they can do, and who they can be, as well providing them with opportunity to acquire maximum knowledge and skills to improve their development in its entirety.

2.1.7 Summary

Learning and development during the early years are hampered by disparities in the home, community and in the educational system. The diminishing contact that many children today have with the natural world is hindering their creativity; perceptual ability and knowledge about and for nature. The vulnerabilities of many Aboriginal children in Australia were highlighted and associated with governmental policies that separated many Aboriginal people from their natural families or removed them from traditional land. Consequently, many Aboriginal children are at risk of developing social, emotional and behavioural difficulties that affect their interest in and performance at schools. This study is interested in the loss of Aboriginal cultural knowledge and identity. In view of these inequalities, there is a call for more quality early childhood educational interventions that reconnect children to nature; respects and promotes their cultural rights and responsibilities. The next section reviews previous outdoor learning programs targeting young children across the globe.
Section 2: Empirical data on outdoor learning.

This section reviews research that explore several factors that promote and challenge outdoor learning programs, namely, political commitment and governmental support; socio-cultural issues; general benefits; links to curriculum; and methodological approaches. It also reviews work documenting the benefits of outdoor learning for the community; child relevant methodologies and outcomes of previous Forest and Bush School Programs. Review of previous studies highlights major issues and gaps related to outdoor learning that will clarify the focus of this study.

2.2.1 Responding to socio-cultural issues

Recognising and addressing socio-cultural issues is emerging as an important aspect of outdoor learning. In the process, outdoor learning can promote an appreciation of the social, economic, political and geographical context of education (Bentsen et al., 2009). For example, an outdoor environmental education program in Zimbabwe focuses specifically on developing agricultural knowledge and skills (Maposah - Kandemiri, Higgins & Mc Laughlin, 2009). It responds more precisely to the inability of caregivers, who although being skilled farmers, could not afford to purchase necessary farming supplies and feed their children. As a result, the development and learning ability of many children were hindered by hunger. Added to that, many of the children in Zimbabwe are left without parents due to the epidemic of HIV/AIDS and teaching and learning resources have also been inadequate. Therefore, such an outdoor program enables children contribute to the productivity of the school gardens and eventually family farms, addressing the current lack of food and improving school performances (Maposah - Kandemiri, Higgins & Mc Laughlin, 2009).

From a community perspective, outdoor learning programs have been used in many countries like Singapore, Japan and Israel to strengthen levels of resilience (Martin & Ho, 2009), and elsewhere to restore community connectedness where exclusion prevailed (Beames & Atencio, 2008; Farrell, Tayler, Tennent, 2004; Dyment & Bell, 2008). The outdoor learning project in Northern Israel, used football, an already popular team based sport to address inter-group conflicts and built cultural bridges between communities that were previously socially segregated (Stidder & Haasn, 2007). It focused mainly on instilling relevant values and
principles such as trust, respect, friendship, co-operation, neutrality, equity, and inclusion (Stidder & Haasner, 2007). In addition, it promotes a sense of civic responsibility among citizens and allowing children to develop a deeper sense of belonging in the community and appreciate the benefits and responsibilities of being part of it (Boss, 1999).

The Forest School that originates in Scandinavia and was brought to England from Denmark in 1993 was concerned about children’s increasingly sedentary and managed lifestyles. It got its inspiration from Froebel and therefore promotes the importance of play, movement, and fresh air by exposing children to nature from the age of three nursery schools in Denmark (Maynards, 2007).

Similarly, in the local Perth context, two schools engaged their pupils in the Bush School project, which got its inspiration from the ideas of the Forest School in the UK. At the Lance Holt School, one teacher was concerned about the impact of being deprived of nature and over-supervision on the creativity of young children (Salahudeen, 2012). Added to that, she wanted the children to appreciate the importance of paying respect and recognising the Noongar people’s activities and traditional ownership (Salahudeen, 2012). In all, the main aim of her Bush school project was for the children to become resourceful, responsible, resilient and respectful.

Whereas, at the Southwell Primary School, the Bush School project targeted to a group of Aboriginal pupils attending Kindergarten to Year 2. In contrast to the Bush School of the Lance Holt School, theirs put emphasis on the Aboriginal culture and its key goal was to provide these Aboriginal pupils with a classroom context where they can connect, and feel belong. In short, the Bush School project at the South Well Primary school was promoting that learning does not solely occur within four walls of a classroom, with a pen and paper (Jackson-Barett, 2012).

### 2.2.2 Political commitment and organisational support

Even though the socio-cultural context may make it difficult, acquiring the commitment and political will of the ruling government and support of other organisations are paramount to the success of outdoor learning programs and can serve as a catalyst for their growth (Maposah-Kandemiri, Higgins & Mc Laughlin, 2009; Bentsen, Mygind & Randrup, 2009; Shirilla, Gass & Anderson, 2009). In Zimbabwe, for instance, the survival and development needs of
children and families were acknowledged as a result of the outdoor learning program discussed previously. This led to the implementation of the Schools and College Permaculture (SCOPE) program (Maposah-Kandemiri, Higgins & Mc Laughlin, 2009). The SCOPE program supports organic farming and sustainable agriculture and, through partnership with the Ministry of Education, facilitates “participatory and sustainable land management within schools, colleges and surrounding communities” that in turn assists the development and integration of “permaculture principles into relevant curricula” (Maposah-Kandemiri, Higgins & Mc Laughlin, 2009, p. 17). In this case, the commitment of the Ministry of Education and government towards the outdoor program facilitated a series of permaculture and integrated land use development training workshops carried out with regional directors of the Ministry of Education, education officers, head of schools and selected teachers and even with parents, staff and pupils (Maposah-Kandemiri, Higgins & Mc Laughlin, 2009).

In stark comparison, the Udeskole Outdoor Program in Denmark is not linked to the Danish National 7–16 Curriculum (Bentsen, Myging & Randrup, 2009). Instead, the program was initiated as local development projects representing a ‘free school model’. This gave schools and teachers an opportunity to develop a new curriculum, pedagogical ideas and methods. This bottom-up, grassroots movement was however regarded as a type of counterculture and ‘wild flower’ that may threaten the stability of the existing education system. As a result, it made it difficult for the program to garner any economic and political support from the government. This lack of support markedly hindered the progress of the program (Bentsen, Mygind & Randrup, 2009).

Conversely, the developers of the Adventurous RESPECT program for middle school students in the US were conscious that the US Federal Government prefers educational research primarily in terms of quantitative methods (Shirilla, Gass & Anderson, 2009). Therefore, to acquire high-level support, the Project team revised the content of their outdoor learning program and diverted its focus to academic achievement and related standard. Thus, the RESPECT program garnered state support by arguing that the use of experiential methods would increase the capacity for students to excel academically (Shirilla, Gass & Anderson, 2009).

The esteemed status of outdoor learning and the Forest School in the UK can be attributed to several national policies that see it as a priority to introduce and familiarised children with
woodland environments (Ward & Thompson et al., 2002). Traditionally, outdoor learning in Britain has encompassed nature oriented and adventure activities that are primarily undertaken outside school hours. However, the current focus on outdoor learning embraces a broader concept of learning that is more integrated into school activities. This evolution is championed by the British government that stated that “there is strong evidence that good quality learning outside the classroom adds much value to classroom learning” (Department for Education and Skills, 2006, p. 5). The Office for Standards in Education (Ofsted, 2004, p. 2) equally explains that “outdoor education gives depth to the curriculum and makes an important contribution to students’ physical, personal and social education.” Following that, a green paper ‘Every Child Matters’ was issues after a series of consultation with children, young people and families. Then, the ‘Learning Outside the Classroom Manifesto’ was launched late 2006 with a vision stating that “we believe every child and young person should experience the world beyond the classroom as an essential part of their learning and personal development, whatever their age, ability or circumstances” (Department for Education and Skills, 2006, p. 2).

The outdoor learning approach adopted by the Bush School projects in Perth is consistent with Australia’s first Early Years Learning Framework (EYLF) introduced in 2009. The Framework aspires to extend and enrich the learning of all children from birth through to transition to school so that they all have “the best start in life to create better future for themselves and for the nation” (EYLF, 2009, p. 5). It acknowledges that all children need to be treated as children and be given ample opportunities to belong and become what they want to be. It thus, recognises their connection to family, community, culture and place as depicted in the three elements (principles, practice and outcomes – Appendix G) of the framework (EYLF, 2009, 9).

2.2.3 Benefits

Regular contact with nature benefits children in various ways. It refreshes the curriculum (Sobel, 2008), which tends to be dominated by print and electronic media (Adkins & Simmons, 2002). In agreement, Louv (2005) notes that unlike the technological gadgets children use today, nature magnifies rather than steals time, inspires young learners and compels them to be more creative.
2.2.3.1 Curriculum

The outdoor activities of Udeskole in Denmark, for example, were linked to specific subjects and curriculum areas, such as measuring the height and volume of trees, poem writing in language class, and nature, history and religion by visiting significant historical places (Bentsen, Mygging & Randrup, 2009). In the outdoor environmental education program in Zimbabwe, composting was explained in English, during English classes (Maposah-Kandemiri, Higgins & Mc Laughlin, 2009). During the mathematic lesson, teachers used potted saplings from the school garden to demonstrate proportions before clarifying percentages (Maposah-Kandemiri, Higgins & Mc Laughlin, 2009). Rather than bore young learners, the outdoor learning experiences in the UK, connect the curriculum to genuine places and real community problems and exposes learners to familiar and unfamiliar phenomena (Dillon, et al., 2005).

“...learnt about some bugs that live in the water and the grassland in the woodlands that I never knew before” “When we went quiet, we heard birds singing and branches waving from one side to another. It was interesting because it was all different shapes of trees and different shapes of leaves” (Dillon et al., 2005, p. 24 - 25.).

Various evaluation of Forest School program across the UK revealed that one of the most pertinent benefits was that it contributes to an individual’s knowledge and understanding of the environment. (Waite et al, 2006; O’Brien & Murray, 2007) and started to remember the names of plants (Waites et al., 2006).

The Bush School project in the Perth school was run one day per week in a natural setting near the school. It operated on a play based learning model. At the Lance Holt School, the content of the outdoor learning experiences composed of topics like geology, soils, flora, fauna, archaeologist and cultural factors. It’s also included presentations from an Aboriginal Elder about Aboriginal history and culture, and appropriate gear and tool kits were provided. All activities were suited for the age range, interests and abilities of the pupils levels (Salahudeen, 2012). This design therefore, enabled children to attain expected standards in mathematics, science, history, society and culture, by writing about their experiences back in the classroom.
As a result, children come to see the interconnections between subjects and are intrinsically motivated (Dyment, 2005). It is clear from these examples that there some common links between what is taught outdoor and indoor. Rea and Waite (2009) maintain nonetheless that, overall, outdoor learning should be seen as an alternative and not an extension to traditional schooling.

2.2.3.2 Developmental

The outdoors increases the cognitive, social and emotional wellbeing, or more specifically, the self-confidence, self-esteem and independence of young children (O’Brien & Murray, 2007; Maynards, 2007). From a community development perspective, experiences in the outdoors have been associated with stronger connection between place, self and community, ecological and cultural sustainability (Woodhouse & Knapp, 2000), increased resilience (Martin & Ho, 2009) and strengthened elements of social capital (Beames & Atencio, 2008).

In their study conducted in the UK, Dillon and colleagues found that outdoor learning also offers opportunities to observe the whole child, in contrast to their narrower focused teaching role within the classroom. Children enjoyed the experiences for

“It was a fun way of learning” and because “at school they just show you things... you have to sit down and learn the boring way” (Dillon et al., 2005, p. 26 – 27), but here “you can feel, you can see, you can touch and you can smell and you can take a packed lunch and stay there all day...” (Dillon et al., 2005, p. 28).

Otherwise, some teachers note that they “saw some children talking to each other that would not normally talk to each other, it’s not a big deal but it bonds children together as a class, a kind of community feel about it” (p. 29).

Other findings concluded that Forest School increases the self-esteem and confidence of those individuals who take part, Its programs improved their affective domain, as they were develop respect for the environment and informed other children how to protect flora and fauna; interpersonal and social skills seen through the improvements in team work (Waite et al, 2006); physical and behavioural skills as advances in stamina and improvements in balance.
were recorded Dillon et al. (2005, p. 22), and provided time to play, taking appropriate risks, and developing the responsibility for their own actions (Maynards, 2007).

The Bush School project at the Southwell Primary school in Perth included activities that focused on “looking at what grows to what you can catch, how to cook it what you can eat, what you can't eat” (Jackson-Barette, 2012). The cultural presentations were led by the same Aboriginal Elder who participated in the Bush School Project at the Lance Holt and Bridge Water Primary School. The Elder summed up the Bush School as providing these children with “some sort of understanding of how we live in the bush and the Aboriginal way of life... and activities that Noongar people did in the early days before settlement” (Thorn, 2012). The children took a while to adapt and “didn't want to do much” in early sessions, but as time went on, they became excited about Thursdays (the day Bush School was held) and arrived at school early. The most striking outcome of this Bush School is the near doubling of school attendance for some children and the pride of many pupils as they shared what they had learned to other classmates and teachers “I am Noongar you know what that means, I know what that plant does” (Thorn, 2012).

Programs such as the Bush School that are enmeshed in their local communities through work with local Elders, connected groups and resonates with two of the key principles of community development evoked by Ife (2002); valuing local knowledge and skills and letting community develop in culturally appropriate ways. This truly echoes what the Bush School aspires to do with the involvement of the Aboriginal Elder. The extent to which the outdoors allows children from various backgrounds to bond has also been studied in Japan (Maeda, 2005), where it was noted that such opportunities permitted the children to think about and contribute to their local culture in ways that served to benefit their broader community and natural environment (Maeda, 2005).
2.2.4 Common methodological approaches used in outdoor learning research studies

Many outdoor education research studies have employed methodologies that are sensitive to naturalistic consultations with children about their experiences and learning. Doing so encourages the researcher to view children as experts of their own lives and acknowledges the unique perspective that they can bring (Clark & Moss, 2005). Allowing children to communicate their experiences then compels the discussions of adults to focus on what is a priority in the eyes of a child (Clark & Moss, 2005). These sorts of methodologies are needed for they attend to the voices of the learners, signalling that the researcher values listening to children (Rickinson, 2001).

The most common methodologies employed in many outdoor studies are observations of children at play, focus groups discussion with children, photographs and video, coupled with interviews with adults (Dillon et al., 2005; Maposah-Kandemiri, Higgins & Mc Laughlin, 2009; Shirilla, Gass & Anderson, 2009; Bentsen, Myging & Randrup, 2009). In the study by Waite (2010), audio tape recorders were worn by four boys as they went about their normal business in and out of classrooms. The tapes picked up, from the perspectives of the children, the interactions between peers and adults as they engage in learning.

The Mosaic Approach is another sensitive research tool described as “a living picture” of the lives of the children (Clark & Moss, 2005, p. 13). It is a two staged approach: stage one involves using cameras, tours and map making to gather and document children’s and adult’s perceptive; and stage two, piecing together information for dialogue, reflection and action (Clark & Moss, 2005). It gives children an opportunity to demonstrate their perspectives in a variety of ways. Each of these tools provides an insight into “children’s interests and priorities and a detailed impression of their outlooks” (Clark & Moss, 2005, p. 14).

Drawing on these philosophies, I have used an adapted Mosaic Approach in this study, comprising direct observation of children in the outdoors and having access to some of the creative works that they have done, depicting their outdoor learning experiences and the meanings they attached to certain experiences. In addition, I draw on interviews with Bush School facilitators. Thus, I am substituting cameras with art work and child interviewing with informal conversations with a few children on site.
2.2.5 Challenges

This thesis is interested in the gap between knowledge and skills provided by learning indoor and outdoor. Linked is the ongoing debate relating to the extent to which outdoor teaching and learning experience raise academic standards (Waite 2007; Brookes 2001 cited in Bentsen, Myging & Randrup, 2009) and given in to the assessment regime criteria (Waites, 2010).

There is evidence suggesting that many teachers will only adopt outdoor learning approaches when directed to do so (Waite, 2010). Further, community development literatures claim that relevance of outdoor learning experiences is heightened when they are embedded into the communities where the children resides or frequent (Beames & Atencio, 2008). The relevance is heightening with the contention from the authors that benefits of the outdoors are higher when they That is exactly what the Bush school attempted to achieve. It chose an outdoor site, bushland that is located in Hillof; the suburb where the school is situated and where most children reside. In that way, the Project takes on a placed based approach (Sobel, 2008) that creates an educational context more attuned to human and environmental relationships.

Consistent with other studies documenting barriers to outdoor learning, Maynard and Water (2007) learned that outdoor learning was not regularly organized in South Wales because a group of teachers were concerned about safety, possibility of litigation, poor weather conditions and complaints from parents that their children got wet and dirty and lack of weather gears, storage and equipment. The teachers also reported the difficulty to supervise children all the time as they explore the outdoor context (Maynards & Waters, 2007). The other remarkable aspect with outdoor learning opportunities in South Wales was that it was teacher directed; there were no use of any natural objects and the same pedagogy used indoor were being employed outdoors (Maynards & Waters, 2007).

The attitudes of teachers and the quality of their interactions with the students in the outdoors influence the outdoor learning process too (Humberstone & Stan, 2011). It is therefore recommended that continuous professional development in aspect of outdoor learning are organised, monitored and evaluated, so that the outdoors is and remain as an environment conducive for learning for all children (Humberstone & Stan, 2011).

Conversely, the effects of alienating ourselves from nature have been explained in various ways. Norton (2009) interprets it as a process of detachment that promotes a cycle of
disconnection, whereby humans try to dominate nature but in the process cause more environmental damage. As the cycles continue, it further ruins the earth and us. This cycle is, however, reversible individually and culturally (Norton, 2009). Louv (2005) interprets such distancing from nature as “nature-deficit disorder” characterised by a lessened “use of the senses, attention difficulties and higher rates of physical and emotional illnesses” (Norton, 2009, p. 34). It is thus proposed that such learning experiences are encouraged, supported and legitimised by caring and knowledgeable adults at a very early age (Orr, 1994). His proposition further justifies the Bush School Project and the current effort of the Aboriginal elders to transmit cultural knowledge and skills; reconnect the present generation to their culture and ensure a stable social and emotional wellbeing (Lee- Hammond & Jackson-Barrett, 2012; Social Health Reference Group (SHFG), 2004).

2.2.6 Summary

This chapter has highlighted the approaches, strengths and constraints faced by outdoor learning programs in Zimbabwe, United Kingdom, Denmark and Australia. From their review, it became evident that their success relied on their ability to secure the support of and partnership with the government and other local organisations/institutions. Their relevance was associated with the extent to which they responded to emerging socio-cultural challenges of their respective countries. All of the programs complemented the curriculum of indoor learning and provided the holistic development of participating children. Their sustainability was however dependent on their choice of outdoor context, the attitudes, willingness and skills of teachers involved and providing sound evidences of ways that outdoor learning can raise academic standards and performances.
Chapter 3: Methodology

This chapter will provide a rationale for the chosen research methods and design. It describes the methods employed and the ways the data were collected and analysed to answer the research questions. The first section provides a rationale for qualitative research and the case study as strategies of inquiry. The second section presents the qualitative research methodologies more precisely: the field observations, informal interviews and procedures that were followed. The third section provides details about the identification and collection of secondary data. In the fourth section, details of the sampling and ethical procedure are outlined. The fifth focuses on data analysis and research schedule. The final section serves as a summary.

3.1. Rationale for the Qualitative Research Design

A qualitative research design is deemed appropriate for this study, as it links with its intention to explore and understand the degree to which outdoor learning experiences provided by the Bush School Pilot Project address learning inequities. In this context learning inequalities are the identified gaps in knowledge and skills provided by learning indoors, as compared to the knowledge and skills provided by learning in the outdoors.

3.2 Research methodology – Case study

An in-depth qualitative investigation of the advantages of outdoor learning will only be possible by employing a case study approach. This is because a case study method allows the Project, a real life event that is confined by time and place, to retain its holistic and meaningful characteristics, while a detailed investigation of various aspects of outdoor learning and learning inequality is carried out over a long period of time. The various aspects explored include the outdoor context where the outdoor learning took place, the rationale, approaches and content of the Project, the learning experiences, processes and the participants (Creswell, 2009). This exploration was made possible, as per the research schedule in appendix H, through the collection of data from a wide variety of sources such as field notes, photographs, and informal conversations with the children and informal
interviews with the Bush School facilitator and the Aboriginal Elder and existing data about the Project and the participants.

Attentive to the criticisms directed at the chosen methodology, this study enhances its rigor, reliability and generalizability through the comparison of existing data and those collected during field observation and interviews, in other words, triangulation (Yin, 2003; Beames & Ross, 2010). The criticisms are further attended to by providing precise and appropriate delineation of qualitative research questions and hypotheses (Stewart, Makwarimba, Barnfather, Letourneau & Neufeld, 2008). Nonetheless, the study finds reassurance in the words of Beames and Ross (2010) that state that “the relationship between this small project and wider claims depends on one’s view of social science. Our deep and particular case understanding can be used as a basis for hypothesizing into the more general context of schooling and outdoor learning” and provide “possible ways ... to “respond to the pedagogy” (p. 100). This study further agrees with their definition of social science being “a practical, intellectual activity that clarifies problems and contributes directly to social and political praxis” … instead of “developing de-contextual theory” (Beames & Ross, 2010, p. 100).

For the context of this study, the data collection was sequential, concurrent and transformative (Creswell, 2009; Stewart et al., 2008). These were evident as data collected from field observations were used to frame questions for the informal interviews, and findings from interviews elaborate and expand on findings of direct observations. Additionally, the combination of all the qualitative data collected simultaneously offered a broader understanding of the outdoor learning and disparities in learning outcomes. Lastly, data gathered and analysed has an overarching perspective and the broad recommendations can guide the review of early childhood education and development agendas and (Stewart, et al., 2008; Creswell, 2009).

3.2.1 Benefits and limitations of the research methodology

This method empowers the targeted children and adults and encourages them to share their stories so that their voices can be heard. Collecting data from such a range of sources allows the examination of the phenomena in a more eclectic manner (Tashakkori & Creswell, 2008; Creswell, 2009), as no single source of data is able to sufficiently answer the research question. The diversity of sources also enhanced the internal and external validity, as there will be a greater confidence in results gained from enriched explanations, and theory
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integration (Leahley, 2007). When combined, these data collection methods neutralise the limitations of each other, providing more details, insight and contextualized information (Stewart et al., 2008).

Dilemmas persist nonetheless. Access to data that will facilitate this integration and such an approach requires increased awareness of confidentiality and the protection of human subjects (Leahley, 2007). Basically, this work is presenting a practical example and potentially effective solutions to respond to disparities in learning outcomes in early childhood education. Given that its prime targets of study are young children, the methods identified and chosen are relevant and work, for they respect the integrity and rights of the participants.

3.3 Qualitative Research Methodologies

3.3.1. Field observations

Field observations involving continuing and thorough observing, listening, watching and asking (Ely, Anzul, Friedman, Garner & Steinmetz, 1991; Humberstone & Stan, 2011) are conducted on the site where the outdoor learning activities of the Bush School Project are carried out. The major questions the observations were designed to answer were:

- What is the outdoor learning context?
- What is the nature of outdoor learning experiences and activities?
- What interactions occur amongst children and between children and adults?

For the purpose of this study, references were made to participant observation from previous research on outdoor learning in UK (Maynard, 2007); Denmark (Bentsen, Mygind, & Randrup, 2009) and Zimbabwe (Maposah-Kandemiri, Higgins & McLaughlin, 2009) to name a few. A participant – observer role, characterised by the observer personally engaging in part of the activities being observed (Patton, 2002; Ely, et al., 1991) was adopted. This was done to acquire a general idea of what to focus on during observation and ways to respect the dignity of children and other individuals being observed. These guidelines were taken into consideration as the researcher familiarised herself with the contexts and participants. During
the observations, the researcher made field notes, took photographs and recorded conversations and discussions.

3.3.1.1 The advantages and disadvantages of field observations

The advantages of participant observation, according to Jean (2004) and Ely et al. (1991), revolve around the fact that some people demonstrate their understanding of a process more effectively using actions than words. Thus, by observing the outdoor learning experiences and interactions between children and between children and adults, the researcher was able to glean information that might not have been readily evident through interviews alone. Moreover, field observations were relatively quick and an efficient method to gather preliminary knowledge about the Bush School Project. It facilitated the description of the outdoor activities and contexts, behaviours, actions, conversations and interpersonal interactions (Patton, 2002). In regards to disadvantages, as Ely et al., (1991) note, the observation were often tedious especially when the activity is not constant. Much time was wasted waiting for things to happen or, conversely, there might be so much happening at once that was impossible to observe or record everything. The use of instruments such as video recording, cameras and audio devices can overcome the problem of infrequent or spasmodic activity (Ely et al., 1991).

3.3.2 Informal Interviews

Interviews were utilised to collect qualitative data from the Noongar Elder and Bush School facilitators. The reasons to interview these two groups of adults rest with the intention to:

1. Have an in-depth understanding of the rationale of the Project
2. Understand the processes involved
3. Consider the outcomes and constraints and
4. Discuss their individual vision for the future of the Project

This is in line with what Patton (2002) proposes interviews should comprise of “open ended questions” yielding comprehensive responses about the “experiences, perceptions”, “feelings and knowledge” of individuals (p. 4) or that they provide rich understanding of situations
with increasing clarity. Patton, however, adds that “verbatim quotations” need to have sufficient context in order for them to be “interpretable” (p. 4).

The interviews were conducted after the observations. This is consistent with the suggestion from Humberstone and Stan (2011), who warn that interviews should not replace data gathered during observation, for often, what people say and what they do does not match. The interviews followed an interview guide approach. Findings from the observations were used to frame interview questions and the interviews served to elucidate on certain specific elements / issues observed. The guide also provided a framework for grouping interviewee responses into topics.

All interviews were arranged by the researcher, who met and built rapport with interviewees during familiarisation visits to the site of the outdoor learning. Requests for interviews during those visits were followed up by phone calls. For the interview with the Noongar Elder, the researcher negotiated a day and time that was convenient to him. A venue within his local area was agreed upon and care was taken to respect the protocols of doing research with the Aboriginal community. Overall, the interviews were informal with only three main topics that were outlined with the interviewees in advance. The interviewees were given the choice to decide how to talk about these three issues, and prompts and open-ended questions were used to seek explanations and clarification on issues that remained Unclear. Hence, the interviews became conversational and situational.

The interview was recorded and notes were also taken. The informed consent of Elder was sought verbally for all procedures.

**3.3.2.1 Benefits and limitations of Interviews**

Interviews are considered by Jean, (2004) to be a flexible tool which can be carried out in a variety of situations with any groups of people or individuals, on diverse general or specific even sensitive topics). Nevertheless, interviews as conversations increase validity but lessen standardisation as compared to surveys and questionnaires (Williams & Vogt, 2011). In this instance, interviews provided insights into the richness and nuances of meaning of the outdoor learning experiences, which standardised questionnaires, may not have touched upon.
3.3.3 Secondary Data

Given the limitation of time, money and access, the study utilised secondary data, that is, data already collected by others, not specifically for the research question at hand (Harris, 2001). These included:

- Official sources: A newspaper article about the Bush school project and a journal article by the Murdoch Research Team (the Bush School facilitators),
- Informal records: Creative works by children on site and Bush School newsletters, which provide a weekly account of the Bush School sessions,
- Visual source: DVD of a Bush School Project undertaken with another Primary school, which provided understanding of the philosophy of the Project.

3.3.3.1 Advantages and disadvantages of secondary data

The unobtrusive access of such data helps to reduce the likelihood that interviewees will provide responses that will make them seem more favourable in the eyes of the researcher, known as social desirability response bias, and reluctance to answer complex ethical questions (Harris, 2001). Secondary data can also overcome loss of information as the researcher tries to recall all information as it was provided. Such data also incur a lower cost, and in the context of this study, they were used to provide triangulation, thus increasing the credibility of the primary data (Harris, 2011). The disadvantage of using such data relates to the fact that they may not be readily available when needed. They may also provide a one-sided picture of the phenomenon that the research is about (Harris, 2011). The study acknowledges these limitations and has used triangulation to maximise the strengths and minimise the limitations of each method employed.
3.4. The Case study

3.4.1 Rationale

The Bush School Pilot Project presented as an excellent case study for this research because it relates directly to the three main concepts that the research seeks to explore: outdoor learning and inequalities in early learning opportunities. The Project is adopting an outdoor learning approach with Aboriginal and non-Aboriginal children of 6 to 7 years old, from diverse socio-economic backgrounds. Moreover, this project has taken heed of the strengthens and challenges faced by previous outdoor learning programs such as accessibility and the cultural attachment to woodland, relationship with other institutions and local community and preparedness of adults involved. This provided a purposive group to study which, in the words of Silverman (2010, pp. 141 – 144), should be chosen on the “basis of their relevance” and on the likelihood that the processes being studied will occur; that they include certain characteristics or criteria which help to answer the research questions; that they offer the ability to “develop and test the theory and explanation” and provide direct accessibility to data that will be readily and quickly collected. This current study is cognisant of the fact that the Bush School Project is a “close-up, detailed or meticulous view” (Silverman, 2010, p. 145) of outdoor learning experiences in an Australian context. Nevertheless, its relevance stands, as it provides insight as to what might work in other outdoor learning settings with young children from different socio-cultural backgrounds, as well as highlighting potential factors needing additional attention.

3.4.2. Participants

As specified above, the participants were children aged 6 to 7 who attend Year 1 (A1 – A3 classes) at Bridge Water Primary School in a suburb in Perth, Western Australia. The group was approximately 50:50 male to female ratio although this varied according to school attendance each week. All teachers were female and the Elder was male.

3.4.3. Existing data

For the purpose of this study, all words, sentences, paragraphs, phrases and sections in existing documents collected were reviewed for analysis.
3.5 Ethics

Ethical consideration is central in research with and on Aboriginal communities and children. This study was conducted as part of a bigger project which uses the Leavers scale of well-being (Leavers, 2003) to investigate the change in social, cognitive and emotional well-being experienced by a selected group of children when they engage in indoor and outdoor learning. Hence, this sub-study adhered to the general ethical guidelines of the larger project. However, an amendment to the original ethic approval was made and submitted to the Murdoch University Ethics committee to reflect the specific focus of this study. Data collection started only after the approval was obtained. Additionally, the transcript of the informal interview was given to the Elder for confirmation of content and approval for use, as per the protocol of working with Aboriginal communities and Elders.

Additionally, an Australian Working with Children Check (WWCC) was required and sought from the Department of Child Protection, to enable the researcher to legally have direct contact with the children.

3.6 Data Analysis

3.6.1 Content Analysis

The qualitative data was analysed using content analysis, which is considered to be one of the prime methods of text analysis in social research. It is described as a coding operation that objectively and systematically identifies and analyses the special characteristics, both quantitative and qualitative, of any written communication or other material that can be made into textual material (Mayring, 2000; Babbie, 2001). The significance of particular ideas or meanings in the documents is measured by tallying the frequency of themes or categories, the number of times a particular item is used and the number of contexts in which it appears (Scott, 2006).
3.6.2 The Rationale

The rationale for using this type of analysis is that it facilitates the breakdown of those textual materials into more manageable units of data; enables the uncovering of intentions and interest; reveals social meanings and perceptions; and shapes the presentation of information and ideas as well (Mayring, 2000; Scott, 2006).

3.6.3. The Analysis Process

Undertaking the qualitative and quantitative component of content analysis of this study involved thorough reading and transcribing of the interviews, followed by identification of clear and coherent categories that highlight salient aspects of the messages conveyed. Then, meaningful phrases were clustered together in those identified themes. As such, this process of going from a transcription to themes comprised of four basic inductive stages referred to as: “total immersion in the data, headlining, quality control check, and coding” (Beames & Ross, 2000, p. 101).

During the process of analysis, both manifest content (elements that are countable and physically present) and latent content (deep structural meaning conveyed by the message) were examined and categorised in themes. The corroboration of the categories was verified by academic supervisors, who recommended adjustments to the labels of a few categories to more effectively reflect their content.

Moreover, the study inherently combined an inductive and deductive approach to the analysis, for even if it focused on the data and allowed themes to emerge from them, previous personal and professional experience such as the reading about the outdoor learning phenomenon has inevitably influenced the labelling of the categories. That said, the study ensured that the primary and secondary data collected remained the principal source of analysis.

The validity of the analysis was further enhanced as it met two of the four set criteria specified by Scott (2006):

- Comprehensiveness, for, all information from relevant sources (Bush School newsletters, newspaper and journal article, artefacts, photographs, transcribed interviews and field notes) were categorised in the identified themes and,
Independence, as the grouping of items did not affect the classification of any others.

However, the study found that not every item could be classified into one of the categories, thus not meeting the criteria of exhaustiveness. Similarly, the criteria of mutually exclusiveness were not always met as some items overlapped more than one category (Scott, 2006).

3.7 Summary

This chapter has presented details of the method used in the study. The method employed was a qualitative case study design. The rationale for the methodologies has been discussed based on its appropriateness to the study area. Chapter four presents the findings and analysis.
Chapter 4

“Djarlgarra Koolunga” Bush School in Western Australia

This chapter presents and discusses data collected during field observation, informal interview with Aboriginal Elder and one of the Bush School facilitators, informal conversations with children on site and existing data. It is divided into three sections. The first provides a detailed background of the Bush School Project. The second section discusses the six main themes that have emerged from a combination of deductive and inductive analysis of the data. In the second section, data gathered is also linked with literature reviewed in chapter two. Section three is a summary of the chapter.

4.1. Background

4.1.1 Origin

The idea for a Bush School Project came from the visits of one of the researchers to Forest Schools in Norway, where children were visibly excited to be attending those outdoor spaces on a regular basis (Lee-Hammond, 2012). The researcher shared that model with some Aboriginal Elders, and elaborated on the possibility of linking it with land and their culture (Lee-Hammond, 2012). This resulted in the development of an Australian version of Forest School with Aboriginal culture at the centre of the program.

4.1.2 Rationale & Funding

The Bush School was a government funded project that aimed to “provide experiences for young children in an outdoor setting that enabled them to learn and experience the outdoors in a culturally appropriate way” (Lee-Hammond & Jackson–Barrett, 2013, p. 1). It focussed heavily on Aboriginal children. According to one of the project team member, such an experience is paramount for Aboriginal children, because being Aboriginal is often perceived negatively (Jackson – Barrett, 2012).

Therefore, together with the local community the project team aspired that the participating Aboriginal pupils develop “real strength about their culture and pride in who they are, and
connect with identity, culture and themselves” (Jackson–Barrett, 2012). The Noongar Elder involved in the project summed up the Project as “giving them an understanding of the bush and how the Noongar people used to live.”

4.1.3 Partnership

The Project was a partnership between Aboriginal families in the local community, a local primary school, and Murdoch University (Lee-Hammond & Jackson–Barrett, 2013). The project team advocated that it is vital to develop an effective collaboration with an Aboriginal community before commencing any work with and for them (Lee-Hammond & Jackson–Barrett, 2013). In the context of the Bush School Project, such a respectful relationship was necessary because, Elders traditionally had the duty for passing on important learning to “Koolunga” (children) (Lee-Hammond & Jackson–Barrett, 2013, p. 5). In addition, to remain ethical and promote community engagement, Aboriginal Elders and families, who are part of that community, must approve, support and refine the content and delivery of the proposed idea (Lee-Hammond & Jackson-Barrett, 2013).

4.1.4 Participants

The children involved in the Bush School Project were a group of Aboriginal and non-Aboriginal girls and boys attending Year one (A1 – A3) at the Bridge Water Primary school from a metropolitan suburb in Perth, Western Australia (Figure L). Only one Year 1 class comprising 14 - 17 pupils attended Bush School at a time (weekly). The children were accompanied by a Year One class teacher and an Aboriginal Educational Assistant, plus “two members of the Murdoch research team [and] a project officer” and a “Noongar Elder respectfully referred to as Uncle” (Lee-Hammond & Jackson–Barrett, 2013, p. 4).

Figure L: A group of Year One pupils of the Bridge Water Primary School with their class teacher
4.1.5 Outdoor learning context

4.1.5.1 Location

The Bush School sessions were held in the Canning River Regional Park (Department of Parks and Wildlife, 2013). The Regional Park is positioned within 9 kilometres south east of central Perth (20 minute drive) in the City of Canning (see figure M). It covers an area of 266 hectares, which has exceptional conservation values and recreational opportunities unique for a very urbanized environment (Department of Parks and Wildlife, 2013).

![Figure M: Map of the Weir](image)

The Weir is on the northern side of the Regional Park and is bordered by wetland to the north and the river to the south (Department of Parks and Wildlife, 2013). The Weir provides a playground and an Eco Education Centre (figures Na – c) that is used by many Primary and Secondary Schools (Department of Parks and Wildlife, 2013). A bridge (photograph 2c) runs over the Canning River that separates the site into two areas.
The Canning River Park has cultural, historical and biodiversity value. It is Noongar country and is known as Djarlgarra by the Beeliar people, who are its traditional owners (Department of Parks and Wildlife, 2013). The Park was also used by the European settlers in the 1830s, and it consists of a variety of habitats, which includes “salt water estuary and deltine islands, salt marshes … and modified forest and woodlands on floodplain” (Department of Parks and wildlife, 2013). The Park also has historical value that lies in three sites: Woodloes Homestead, Mason’s Landing, and Kent Street Weir (Department of Parks and Wildlife, 2013).
4.1.5.2 Accessibility

The outdoor learning site is approximately 10 minute drive from the Primary School and a bus transported the children from School to the site every Thursday (Lee-Hammond & Jackson –Barrett, 2013).

4.1.6 The atmosphere & duration

In terms of the weather, the Bush school outdoor learning experiences were conducted from the months of July throughout to October, which was the winter and spring season. In this part of the world heading out into the Bush in summer is not ideal since temperatures can reach over 40 degrees celsius and venomous snakes are prevalent.

The weather was characterised by strong winds with regular periods of both sunshine and rain, which gave the site a damp scent. The occasional strong wind, although cold, was fresh. On the sunny days, the site became more alive with sights and sounds of different kinds of birds including those of people coming to the nearby café and families enjoying the facilities of the Park. However, the sounds of the children talking non-stop or laughing with their peers filled the site regardless of the weather.

The Bush School project had two distinct phases. The first targeted only the Aboriginal pupils, whereas in the second phase, the non-Aboriginal pupils joined in. The sessions typically went for three hours (9 am to 12 pm ) once per week for an academic term and children learned in the outdoors from an Elder (Lee-Hammond, 2012). Sessions ended with all children and adults standing in a circle briefly going over what they have done today and how they felt about it. All children are encouraged to use their body to express which part of the session they enjoyed the most (figure O). This gives the researchers and Uncle an opportunity to quickly evaluate the children’s responses to the program.
4.1.7 Approaches: Taking care of the ‘whole child’

The adults involved in the Project demonstrated that they were not solely interested in academic learning for the children but also in their socio–emotional, cultural and artistic, fine and gross motor development plus their health and safety (Appendix J).

4.2 Emerging Themes

The following section presents and discusses the six major themes that emerged from this study. These themes were: Aboriginal cultural knowledge, new experiences, social knowledge and skills, problem solving through hands on challenges, environmental conservation and sustainability and connection to curriculum.

4.2.1 Aboriginal cultural knowledge and skills

The first and most prominent theme that emerged from the data was that of Aboriginal cultural knowledge. This theme was present in four features of the Project: the target audience the context, the partners and facilitators, and the content of majority of the materials, learning activities and aids used.

First and foremost, the outdoor context where the Bush School sessions were held: the Kent Street Weir in the Canning River Regional Park is an area that is traditionally owned by the Noongar people. As Uncle explained in the interview, the children were provided with
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“some sort of identification to where they are... a lot of them don’t know that they are Noongar, don’t know where they are from, um... so they just come into the world, go to school and think they are Noongar kids just from the City”

So, the learning experiences in this place focused on teaching them not to

“Break plants or kill animals for no reasons, cause we have a totem system where girls and boys are given a totem, that’s their responsibility to look after that “.

And share with them that they are

“allowed to go in the bush and do that”... “that the bush is not there just for the bush’s sake... there are plants for medicines and plants for food” and other things and that “people can survive in the bush...if they know what they are doing”

The importance of land for the Aboriginal people was passed on as well because, the “Noongar nation” as Uncle related has “about 12 different languages” and are divided into tribes that lived in distinct areas referred to as ‘country’.

These different areas of ‘country’ are divided by

“... maybe just a line, maybe a stream, or hills, or something like that” and people like the Elder knew exactly when they cross over that hill or land, you are on someone else’s country”. [Each country has its own] “rules”...
... that may be similar to that of others but as children they have to learn to respect the rules of the country.

The children were able to learn about the rituals and other significant information about their specific ‘country’ because Uncle identifies each child’s family:

> “I work with their names and surnames – so once I know their surnames, … and who their parents are, then their grandparents, I try to get that oldest person’s name in their family line, I know now and can say you guys are from this place”

Other learning experiences that depict Aboriginal culture is listed in the table below

<table>
<thead>
<tr>
<th>Learning experiences</th>
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</thead>
<tbody>
<tr>
<td>1. Throwing of boomerang</td>
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<tr>
<td>2. Talk about what they have collected in the baskets from the bush</td>
</tr>
<tr>
<td>3. Listening to story (river snakes)</td>
</tr>
<tr>
<td>4. Collective drawing of a snake on the ground</td>
</tr>
<tr>
<td>5. Using binoculars to look at trees, birds, nests</td>
</tr>
<tr>
<td>6. Talking &amp; looking at a book about bird nests</td>
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<tr>
<td>7. Working in pairs to collect things to build a nest together</td>
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<tr>
<td>8. Learn how to approach snakes in the bush</td>
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<tr>
<td>9. Hunting game</td>
</tr>
<tr>
<td>10. Totem (face painting)</td>
</tr>
<tr>
<td>11. Walk over the bridge</td>
</tr>
<tr>
<td>12. Language, kinship systems and the Law</td>
</tr>
<tr>
<td>13. Dreaming stories</td>
</tr>
<tr>
<td>14. Weaving</td>
</tr>
<tr>
<td>15. Tool making</td>
</tr>
<tr>
<td>16. Hunting and gathering skills</td>
</tr>
<tr>
<td>17. Bush food and bush medicine</td>
</tr>
<tr>
<td>18. Fishing traps and</td>
</tr>
<tr>
<td>19. Risk management</td>
</tr>
</tbody>
</table>
This knowledge was transmitted using story books, baskets, strings made from bamboo leaves, and stones to name a few and all of the activities were carried out in nature and discussions were conducted mostly by sitting in a circle.

Learning experiences also included spear throwing and learning about kangaroo skin as displayed in figure P.

**Figure P (a): Spear throwing**

**Figure P (b): learning about kangaroo skin**

### 4.2.1.1 Analysis

Firstly, the chief actors and the targeted group of both the Bush School Project and this study were the young children age eight and younger. By focusing on children in that age range and providing them with another early learning opportunity, the Project has responded to the
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international call to expand and improve access to learning and development (Ball, 2012; United Nations General Assembly, 2002; UNESCO, 2011). The focus on the Bush School Project also aligns with the aim of the National Early Years Learning Framework to “extend and enrich children’s learning” (EYF, 2009, p. 5). Furthermore, data gathered indicated that as recommended by the 2013 / 2014 EFA Global Monitoring Report, the Project attended to the education as well as the well-being of participating children (UNESCO, 2013b).

It is vital to remember at this point that the main aim of Bush School project was to enhance the well-being and cultural pride of the young Aboriginal pupils. This group of children are at a distinct disadvantage because of their minority status (O’Keefe et al, 2012), but the project sought to negate that by re-directing the spotlight on their strength, which is their cultural wealth. This strategy acknowledges and responds to some often unacknowledged cultural barriers that typically hamper the well-being and restrain the educational success of Aboriginal children (Ball, 2012; Cavicchioni & Motivans, 2001). On a global level, Aboriginal and other First Nations children are less likely to participate in early childhood care and education programs (Ball, 2012). Literature has highlighted that poor cultural identity negatively influences the educational development of these children, which is further jeopardised by a curriculum that derives from and used by mainstream culture (Kickett – Tucker, 2008 cited in Lee-Hammond & Jackson-Barrett, 2013) to perpetuate their dominance (Cavicchioni & Motivans, 2001). These equalities then damage their effective adaptation to and functioning within the mainstream educational systems (Cavicchioni & Motivans, 2001).

On a brighter side, the Project has managed to address the loss of the Aboriginal culture and the historically derived shame around Aboriginality; a real socio-cultural challenge for the Aboriginal community. Therefore, the outdoor learning experiences has provided the Aboriginal pupils with opportunities to learn what it really means to be Aboriginal, the wealth of their culture and consequently promote pride in being Aboriginal and later on school attendance and performance. In a previous Bush School program in Perth, teachers were amazed how “just bringing kids to the outdoors” can double attendance rates, and produce a group of children who could confidently pronounce that they are Noongars, share what it means and express their knowledge (Lee-Hammond, 2012).

It was also interesting to observe that both children and adults became absorbed in the cultural learning experiences. To the present researcher, this created an atmosphere of
togetherness, equality and motivation because everyone seemed to be a student. This is different to the classroom, where teachers are always the ones in front instructing, in a position of power. What is more, upon introducing new skills, the Elder and the Bush School facilitators always modelled the skills first and then everyone did it. This reflects social learning theory (Bandura, 1971) and was further displayed by occasional cheering and applause, which served as immediate reward for the children’s effort.

These learning experiences depict a new dimension to outdoor learning that has not been well developed in other outdoor programs, and it is different to the learning experiences of the Forest School. Such an approach “foster(s) children’s motivation to learn and reinforces their sense of themselves as competent learners” (EYLF, 2009, p. 13). Choosing to attend to and promote the cultural identity of these pupils, demonstrates that the educators involved in the Project honour “the histories, cultures, languages, traditions, child rearing practices and lifestyle choices of families (EYLF, 2009, p. 13) and the “diversity about ways of knowing” (EYLF, 2009, p. 14). In sum, such cultural experiences enabled the children to exercise their participation, survival and development rights, as declared by the Convention on the Rights of the Child (UNICEF.org) and eventually develop a deeper sense of belonging (EYLF, 2009).

Secondly, the bushland where the Bush School was held is also situated in the same local area where the children live. The importance and benefits of grounding outdoor learning in a local area, which participants often frequent, was raised by Beames and Atencio (2008), who note that it helps to promote a sense of belonging and responsibility to a place. In a similar vein, Martin and Ho (2009) emphasise the significance of grounding outdoor learning programs in the cultural dynamics of a place. The Bush School Project responded to these suggestions and focused on the emphasis Aboriginal people traditionally placed on cultural knowledge and relationships with nature as a way to strengthen sense of belonging, cultural identity (Lee–Hammond & Jackson–Barrett, 2013) and social and emotional well-being (SHRG, 2004). In so doing, they also provided an outdoor learning experiences that depict “a different time, culture and geography” as requested by Martin and Ho (2009).
Third, the Bush School Project managed to bridge the gap in learning opportunities through the involvement of Aboriginal facilitators, namely an Aboriginal Elder respectfully known as Uncle, the project officer, the Aboriginal Education Assistant and one of the Bush School facilitators. In contrast to many teachers in the Australian schools, these individuals understand the needs of these children, they were prepared and had experience with such learning activities and had a shared vision. Their presence potentially played a role in motivating learning and sustaining the interest of the Aboriginal students, making them feel more comfortable in this unfamiliar context. The union between the Aboriginal pupils and the Aboriginal facilitators validates the constructivist learning approach stating that knowledge is a product of social and cultural encounters between the less and more knowledgeable members of a society (Vygotsky, 1978). Ball (2012) applauds such initiative for she believes that such collaboration can enhance accessibility to culturally relevant resources.

On top of that, the Project was collaboration between the University, the School and Aboriginal families. The recognition that the Project in its entirety needs the input of everyone who impact and has the learning, development and overall welfare of the pupils at heart reflects the Ecological Systems Theory of Bronfenbrenner (1979). This partnership succeeded because each partner contributed to its content, and thus committed to its outcomes of the project. These relationships were positive as they were built on respect. They recognised the expectations, and attitudes of each partner building on their knowledge and strengths. This collaboration can also be seen as a way to challenge the education system and identify alternative “equitable and effective ways to ensure that all children have opportunities to achieve learning outcomes” (EYLF, 2009, p. 13). For the OECD, this signifies that the Bush School project has successfully engage families and the community and met one of the quality standard set for all early childhood development programs (OECD, 2012).

Despite focusing more on Aboriginal pupils, the Project team also invited non-Aboriginal pupils to benefit from the knowledge and skills being imparted. Such an approach highlights that inclusion is necessary for equality as it provided the Aboriginal pupils with an opportunity to share their culture with their peers. This demonstrated a true example of genuine two way learning; whereby member of both, a minority and dominant group participated in the culture of one another. This aspect of inclusion in the Bush School aligns
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with previous outdoor learning research that aimed to enhance the development of communities through improved co-existence and community reconciliation, increased level of social capital, trust, respect, and networks amongst children from different cultural groups (Stidder & Haasner, 2007; Beames & Atencio, 2008; Boss, 1999).

The development of communities also thrives on the preservation of local culture and safeguarding it from Euro Western ideas and interruptions. In that context, the Bush School has been able to reduce disparities and provide an alternative early learning opportunity valuing “diversity of voices, knowledge sources, ways of life” (Ball, 2012, p. 286) and existing local knowledge and expertise (Ife, 2002; Kenny, 2011). By offering the Aboriginal children such cultural knowledge at an early age, the project is enabling them to have more control of their lives and allow them to participate more actively in society (Kenny, 2011). These local assets are useful in garnering high community participation in local programs and to establish the legitimacy of local approaches (Ball, 2012).

4.2.2 New experiences

Learning in the outdoors also exposed the Aboriginal and non-Aboriginal children to new experiences that they may not have encountered elsewhere. This second theme was visible, for instance, as one girl saw muddy puddles (figure Q) on the site, and said:

![Muddy puddle](image)

“*I didn’t know mud was real*”

The day following a heavy rain fall, the Bush School facilitators and the class teacher took the pupils for a walk across the bridge. The river was full and there were several water holes.
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[twirling motion of water in the river]. The Bush School facilitator pointed to the water holes and asked one boy “what is causing these?” He replied:

“Somebody pulled out the plug!”

As stated in section one, Bush School sessions were held during the winter and spring seasons. Hence, there were days when the children were out in the field absorbed in an activity and the rain came. Outdoor learning in the Bush School did not stop; each child was instead provided with a raincoat and gumboots. On one occasion a girl who was clearly feeling uncomfortable, said softly to herself but loud enough for me to hear

“I am cold; I wanna go back to school”

Another example of the novelty of these experiences was visible during an exploration activity using binoculars (figure R). Each pupil was given a pair of binoculars, placed in groups of four or five and asked to look out for any interesting things they could find in the trees. The Bush School facilitator explained to them the boundaries of how far they could go and each group was led by an adult. I followed a group and indulged in a short conversation with two students, a girl and a boy.

I asked them “Do you often go to the park?”

The boy replied “I have to wait when daddy comes out of the office”.

The girl told me: “My mother had her wedding in the park last week end and I saw three bee-hives and so many birds…”

During that same activity (figure R), the uniqueness of the experience could be inferred from the questions and exclamations of the children:
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Figure R: A group of children led by the Aboriginal Education Assistant

Bearing in mind that these experiences were new to most of the children, the adults had to often reclaim the attention of the children by saying:

“I can hear birds but can't see them!”

“Is that a caterpillar I see?”

4.2.2.1 Analysis:

Quotes from these engaged outdoor learners reveal at least two meanings. On one hand, the observations indicated that the way they were learning related to two outdoor play motifs put forward by Sobel (2008) which are adventure and animal allies. In contrast to learning in the classroom, in the outdoors, the Bridge Water pupils were on an adventure that required additional physical abilities to fully explore the diverse features of the contexts and to identify and appreciate many animals there. The excitement during those new learning experiences had evidently stemmed from the ability of the children, as evoked by Louv (2005), to make use of all of their senses to simultaneously attend to the various things around them. From an experiential stance, the pupils were gaining new knowledge through immediate real life experiences (Kolb, Boyatzis & Mainemelis, 2000). On other hand, the aforementioned quotes, although on a small scale, indicate that similarly to children who were studied in Denmark, England and Singapore, some children in Perth are still having limited contact with the natural world, thus losing out on the multiple learning opportunities it offers. This is unfortunate, for continued “containment of childhood” or “toxic childhood”
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as Palmer (2006 cited by Tovey, 2010, p. 9) calls it, can worsen the symptoms of what Louv (2005) refers to as ‘nature-deficit disorder’.

The attempt of the Bush School Project to address unequal access to learning opportunities arising from limited contact with nature highlights a significant deficit in Australian schools. Even if there is national and state level policy promoting environmental education and outdoor learning, the means and provision to devise whole school environmental educational programs have not been forthcoming (Clark, 2007). Perhaps the lack of outdoor learning initiatives can be attributed to the fact that many schools in Australia have what Lee – Hammond (2012) and Thompson (2012) call a testing regime. There is also a tendency to focus more on economic returns, accountability and standards and less on playful learning (Salahuddhen, 2012; Tovey, 2010). Moreover, the choice, space and time to engage in and benefit from such experiences in classrooms and around school compounds are very limited. This restriction is primarily due to the shortening of recess time, amalgamations of schools for economic efficiency and the development of rules about the ways children use the school grounds, thus compelling teachers into a policing role (Evans 1995; Evans, 1997 cited by Clark, 2007).

By contrast, the dynamic, rich, challenging, and unpredictable features of the outdoors make it a unique learning context and a total contrast to the confines of classrooms (Tovey, 2010). According to Dahlberg, Moss and Pence (1999) these new experiences should be encouraged as it permit children to actively construct their own “knowledge, identity and culture” (p. 48).

4.2.3 Social knowledge and skills

The third emergent theme of the Project is that of social knowledge and skills development. All data collected throughout the study indicated that the majority of the outdoor learning experiences in the Bush School Project took place in pairs or in groups, thus providing the pupils with opportunities to expand their social knowledge and sharpen their social skills. One good example was during the nest building activity. The children were directed to find a partner and collect few things to build a nest with. The class teacher and facilitator reminded them that this was team task and that they have to build one nest between the two of them. As such, this required the pairs to communicate and negotiate about which things they thought were better to build a strong nest.
Another example is when the pupils were building the *mia mia* (shelter) (figure S)

![Building the Mia Mia shelter](image)

**Figure S: Building the Mia Mia shelter**

Not all the children found it easy to work together in the outdoors. On two occasions, the class teacher had to intervene and talk to a child separately. In one instance, a boy was continually disturbing the group as the Bush School facilitators showed and told them about kangaroo skin. That same boy later sat aside and refused to join the others, who were creating a river snake using twigs and other things they found around the area. On another occasion, another child was put on ‘time out’ by the classroom teacher, after failing to wait for his turn to throw the boomerang and refusing to listen to Uncle’s instructions.

The reaction of the teacher was exemplary:

One boy was brought to the side, away from the group; explained why this was done; informed that his behaviour is not acceptable and was given time to reflect on behaviour, then was allowed to join the group.

The other boy was given several verbal warnings to behave properly; was called upon and explained the impact of his behaviour on the learning of others and he was left alone, but in close proximity to the group, when he refused to join the group activity.
4.2.3.1 Analysis:

The Project has brought together a diverse group of children, who even though they share the same classroom and possibly play together during recess on school grounds, were now obliged to learn and play together for a longer period of time. The National Scientific Council on the Developing Child (2009) supports such opportunities by stressing that school readiness is not merely about mastering literacy and numeracy, but it is about the capacity to create and sustain positive relationships with teachers, children, and other adults, and develop cooperating skills. This equally resonates with what the educators of Reggio Emilia call “preschool without walls” necessitating children to enter into dialogue with their surroundings (Dahlberg, et al., 1999, p. 76). Such encounters in the outdoors are vital for Malaguzzi (1993, also cited in Dahlberg, et al. 1999) sees these as opportunities for children and adults to share lives and counteract the solitude, indifference and increasing violence that are pervading the contemporary modern world.

Such opportunities to develop thriving and nurturing connection with others, trust in the capacity of others to contribute to a task, and the ability to network to facilitate task completion are core elements of social capital (Beames & Atencio, 2008; Stidder & Haasner, 2007). These elements of social capital were observed and noted in both phases of the Bush School Project. Bonding social capital was at work in the first phase, where all the Aboriginal Year one pupils were on site, learning and interacting with each other. Such a space allowed them to connect to their culture in an individual way but also reinforce their cultural identity as a group. Bridging social capital came about in the second phase as the Aboriginal and non-Aboriginal pupils were mixed; and the Aboriginal pupils were invited to be Rangers and share their culture with their non-Aboriginal peers. This created a safe and child friendly space where the Aboriginal culture could be understood, respected and valorised from the perspectives of a child.

So, from an inequality standpoint, unlike learning in the classrooms, the outdoor learning experiences provided by the Bush School had challenged the social, behavioural and emotional skills of these boys and possibly others who were observing what had happened. This exposure, although short, had provided them with the knowledge and skills to be patient, attentive and respectful of simple humanistic values.

Moreover, the group based activities indicated that the Project was not leaving any child behind. It recognises their uniqueness and used group works to highlight how they each
complement a given task. In that way, the Project catered for the holistic development of each of the children and upholds their participation and development rights as enshrined in the United Nation Convention on the Rights of the Child (UNICEF, 2006). Lastly, the Project, seen through the interactions between children and adults, recognised and accepted the influences of context on the development of the children (Britto, 2012), who came from diverse social and economic backgrounds. That way visible in the manner in which the teacher handled the misbehaviour of the two boys. Despite the fact that they were being defiant, she showed them respect, patiently communicated what was expected of them and allowed them ample time to reflect on what has happened.

4.2.4. Problem solving through hands on challenges

Some of the outdoor learning experiences required the pupils to actively solve problems together. This was evident in the bird nest activity mentioned above. Prior to the start of the building of the nests, all the children sat in a circle on the grass and looked at a book about bird nests brought to the site by one of the Bush School facilitators. After that it was their turn to build a nest from things they found around the site. Before the children went off to find those items, they discussed as a group how a bird nest should feel and look. The students responded:

“Strong”, “comfortable”, “warm”

Then they set off in pairs to find those things. I followed two girls who, as they looked around for materials, discussed and agreed on what to gather; feathers, cotton, flowers, twigs, and leaves of different colours. I helped them to gather and carry some of their things. After collecting reasonable amounts of things, they went back, found a spot and sat down to start building their nest. It was a windy day, therefore, it was interesting to see how they tried to build their nest and keep their materials from flying away. They tried different ways: putting the twigs and leaves at the bottom and feathers, cotton and flowers on top or mixing them. Twice, they had to go back and get more materials as they felt they did not have enough things to build a proper nest.
As I glanced to the other pairs, I heard two girls arguing

“Come on, you're messing it up...now we have to make it all over again”

Their nest had more flowers and features and less leaves and twigs.

As I stood up and observed the other pairs at work, I noticed that the girls were working better together and their nest was quickly taking shape. In contrast, the boys, who could not agree on how to build their nest, had to get help from Uncle. Another fascinating observation was the differences in materials gathered by the girls and the boys to build their nest. For the girls, a warm, strong and comfortable nest discussed as a group earlier meant a nest made of flowers, cotton, leaves of different colour and twigs. The boys, however, made their nests with branches, twigs and dried or green leaves.

The article written by the research team about the Bush School outdoor learning experiences relates how one boy cut the palm of his hand and started bleeding as he tried to remove a seed from its sharp seed pod. This happened after Uncle had told them stories about bush food and bush medicines and had explained how to “extract the nut from a seed to use for making flour” (Lee-Hammond & Jackson–Barrett, 2013, p. 11). Interestingly enough, they noted that instead of crying and complaining, the boy sought advice from the Elder straight away as to what was a traditional treatment for bleeding, asking:

“What do Noongars do when they bleed?” (Lee-Hammond & Jackson–Barrett, 2013, p. 11)

4.2.4.1 Analysis:

The exceptional feature that distinguishes outdoor learning from learning occurring in the classrooms is its experiential nature. As the Year One pupils immersed themselves in the outdoor activities, they were definitely putting into practice aspects of experiential learning theory as described by Kolb (1984). The pupils were being provided with opportunities whereby they could transform real life experiences symbolically by thinking about and
analysing what was happening, which Kolb, Boyatzis and Mainemelis (2000) call “abstract conceptualisation” (p. 3). The children also demonstrated the ability to reflect on and put into action what they have previously observed (Kolb, Boyatzis and Mainemelis, 2000).

However, the fact that pupils approached the nest building activity differently validates the claim made by Kolb, Boyatzis and Mainemelis (2000) that adoption of a learning style depend on the demands of the present environment and past experiences with such tasks.

Furthermore, the pupils’ ability to identify things in the environment that will make a nest warm, strong and comfortable, which they discussed as a group, is an excellent example of Affordance Theory (Tovey, 2010). Being in the outdoors has led the pupils to comprehend and identify the various possibilities that environmental features may offer (Tovey, 2007). They displayed understanding that things are much more than their physical characteristics and that their textures and shape may have functional meanings. An understanding of the dynamic nature of the outdoors and its affordances would not have been entirely possible in classrooms. Moreover, all these learning experiences were carried out in groups involving, discussions, asking questions, making guesses and testing the possibilities of using various items. These exemplified constructivist learning theory as they were acquiring new knowledge or expanding existing knowledge through a social activity (Kahn, 1999; Vygotsky, 1978).

4.2.5 Environmental Conservation and Sustainability

The data collected also demonstrated that the Project provided the Bridge Water pupils with environmental conservation and sustainability related knowledge and skills. These learning experiences were apparent on several occasions such as after Uncle finished telling them a story about river snakes and when they had a discussion about the different types of fish in the rivers in their area and Uncle reminded them to catch only the big fish and not the small ones. Further, after having something to drink and eat during recess, the class teacher passed around a bag and reminded them to put all their rubbish in it (figure T). Facilitators also collected rubbish from the riverbank left by people who had been there fishing (beer bottles, bags of bait, fishing line). The children asked why they were collecting the rubbish and they had a conversation about protecting and caring for the place, as well as the animals and plants that live there, so that other children in the future could enjoy it in the same way.
From a cultural standpoint, Uncle related to the children not to

“take more than you need, you don’t break plants or kill animals for no reasons, ’cause we have a totem system where girls and boys are given a totem, that’s their responsibility to look after that –“

And the necessity to do

Regular burn offs of dead leaves and “keep undergrowth low … or else you can get a lightning strike and get bush fires –“

Existing documents on the Bush School outdoor learning experiences provide information about management of risks while in the outdoors. While these learning experiences may relate to the curriculum, it is more associated with environmental conservation as the children were taught how to identify and avoid likely homes of many dangerous animals that they might encounter. In addition, they were encouraged to respect those animals and taught how to respond if they did come across creatures like snakes and spiders (Lee-Hammond & Jackson –Barrett, 2013, p. 15):
4.2.5.1 Analysis:

The limited involvement of early childhood education in sustainable development is raised in numerous works (Davis, 2009; Elliot & Davis, 2009; Hagglund & Samuelson, 2009). As described above, the outdoor learning experiences provided by the Bush School did address this gap by exposing the Bridge Water pupils to education, in about and for the environment.

Following on from the arguments of Davis (2009), as did its pioneers in the UK and Scotland, the Bush School Project respected the quality standards of the OECD (2012 and ensured that the early learning experiences provided were stimulating and included positive interactions with adults. It also recognised the role of the ‘third teacher’ in this case, the outdoors. The ability of the Bush School to address this gap in knowledge and skills is exemplary, considering the difficulties, notably: the under developed nature of the early childhood education sector; and the complexity and diversity in the organisational structures and governance of early childhood education and care, which has slowed the process by which sustainability issues are included the curriculum (Davis, 2009).

As mentioned in the previous chapters, the Project focused on reconnecting the Aboriginal children to their culture in nature and this is basically because, traditionally, Aboriginal people have a close relationship to nature, referred to as ‘country’. As such, the Project provided the children with knowledge and skills to see themselves as part of nature, thus rejecting the “individualistic, competitive, materialism, world views” (Lugg, 2007, p. 99). Similarly, this exposure will very likely repair the human – nature relationship that eco psychology longs for (Fisher, 2013) and inspire the pupils to protect the environment, thus, reinforcing their connection to it (Norton, 2009).
4.2.6. Connection to curriculum

There were numerous examples of the actual and potential connections between the outdoor learning experiences and learning in the classrooms. These were manifested as the pupils sat on the grass in a circle and were each given the chance to see, touch and inspect the things the birds have used to build their nests with and the class teacher said

“As you look at the size of the nests, try to imagine how many eggs can fit in it”.

Following an earlier session of going round the park to collect things listed on a page, I observe as

One of the BS facilitators asked them what they have in their baskets … Many had flowers, empty cans, twigs, and gum nuts. Then they talked about the gum nuts, how they are different to another in term of their sizes and colours. A brief discussion about which one is small, big and biggest and its colours (brown and one green), few had holes and others not

The topics of seasons was elaborated upon, before they went and explored the trees using the binoculars,

The Class teacher asked them what season we are in and why. They mentioned spring and the fact that it is windy and the leaves are yellowy.

Then the Aboriginal Educational Assistant shared with the children that the Aboriginal people have a different conception of seasons that are divided into six seasons and the present one is Djilba.

Upon asking how do the Aboriginal people know which season they are in? The Aboriginal Educational Assistant replied that it depends on which plants are in flower, and which animals they can hunt down or whether they can do any hunting at all.
All the discussions on the outdoor site were in English and on a few occasions the pupils learned the Aboriginal word for a particular object or place. They were encouraged to ask questions and every child was given the opportunity to answer. During the rubbish activity (exploring around looking what they thought was rubbish), pupils were given a list of things and a pencil to tick off what they had managed to gather. Additionally, each child was encouraged to keep a journal (figure U) about their outdoor experiences.

![Figure U: Bush Scholl Journal of an Aboriginal pupil](image)

Similarly, existing data related how the spear throwing activity was linked to mathematics as the children used the spears the measure the distances the spears were thrown and make comparisons (Lee- Hammond & Jackson – Barrett, 2013). Other curriculum links include history (the original use of spears), culture (the stories Uncle told of the ‘old people’ and how they hunted), geography (which parts of the landscape were likely hiding spots for different types of animals), physical education (walking softly, throwing technique) and science (physics of throwing the spears, lifecycles of animals) (Lee-Hammond & Jackson – Barrett, 2013).
4.2.6.1 Analysis:

This theme clearly indicates that learning in the outdoors with the Bush School scaffolded the existing knowledge and skills of the Bridge Water pupils and enhanced their learning (EYLF, 2009). Apart from supporting existing knowledge, the outdoor learning experiences offered by the Bush School allowed the children to see the interconnection between subjects taught indoors and outdoors, where they could see, smell and touch what they have been learning within the four walls of a classroom (Dillon et al., 2005). The outdoor learning experiences also promoted the speaking, writing and reading skills of the pupils and their memory of events.

The observation also revealed positive interaction between the pupils and adults compared to the interactions in the study of Humberstone and Stan (2011), whereby the teachers negatively affected the learning of the students on outdoor residential experiences by maintaining the same authoritative attitude that they normally used in the classroom. Besides, even if the Bridge water class teachers were making occasional references to the curriculum, the atmosphere did not seem tense. It is fair to argue that this was so because, after coming to the site for a term, the children felt more at ease with this type of learning and understood that it was acceptable to make mistakes and the fact that they were not being formally tested nor penalised for giving a wrong answers made it easier. It is this kind of learning atmosphere that Lee –Hammond (2012) and Thompson (2010) advocate for children of that age.

Nevertheless, from an equality perspective, the study acknowledges that some aspects of learning inequality will not necessarily be addressed immediately or even in the short term. In regards to new early childhood discourses, for example, the Project may have merely injected new ideas into the minds of its stakeholders, demonstrating another means of approaching an issue that has been on the discussion table for long time. In this sense, it is anticipated that the Project can spur more discussions that may possibly result in policy and program changes at the community and school levels. Perhaps it may also change the way families make use of the outdoors and promote children’s learning and development as well.

It could also be deduced from the data gathered that the three visions of the early years learning framework for Australia have been touched upon and lived. Children were allowed to ‘be’ real children, free to experiment and explore the surrounding at their pace. Many of the Aboriginal students demonstrated interest in their culture, which would eventually foster a deeper sense of ‘belonging’. Finally, taking into account that the learning experiences were
held in the outdoors, it provided all the children opportunities to develop a closer relationship with nature, to become more attuned to its dynamic characteristics and hopefully become agents of sustainable development and more resilient towards global challenges.

4.3. Summary

This chapter presented and discussed the findings. Data collected from filed observations, informal interviews and existing documents revealed six main themes; Aboriginal cultural knowledge, new experiences, social knowledge and skills, problems solving through hands on challenges, environment conservation and sustainability and connection to the curriculum.

In essence, the Bush School Project is a community project that focuses mainly on the Aboriginal pupils but targeting a group of Aboriginal and Non-Aboriginal Year one pupils from a small Primary school in Western Australia. It formed part of the school program. It was organised on a weekly basis in a bush land in close proximity to the school.

The Aboriginal cultural knowledge theme was reflected in the target audience, the context where the outdoor learning experiences were held, the facilitators involved, the content of the learning activities and learning aids. All in all, they all promoted cultural knowledge and skills and the cultural identity of the participating Aboriginal pupils.

The new experiences allowed them to undertake bush adventurers and become animal allies and used their senses. The group-based activities provided opportunities to expand social knowledge and sharpen social skills. The immediate real life experiences allowed the pupils to solve problems through hands on experiences – reflecting and acting on observations made. It demonstrated to them the importance of protecting and conserving the environment. Another aspect of the outdoor learning experiences provided by the Bush school was the connection between subjects taught indoors; promoted speaking, writing and reading skills as well as memory as they kept a weekly journal.
Chapter 5

5.1 Conclusion

This work was designed to determine whether the outdoor learning experiences provided by the Bush School Project can offer an equitable, and alternative early learning opportunities to learning inside a classroom. To achieve that, this study examined the

- Rationale, processes and approaches of the Project,
- The outdoor context where the learning took place,
- Outdoor learning experiences that the children were exposed to, and
- The child–child and the child–adult interactions.

It is notable that this paper viewed the Project as an early childhood development (ECD) intervention. The ECD approach of the Bush School Project was apparent through its focus on a group of students aged seven years old and younger. Furthermore, the wide range of learning experiences; the provision of food and drinks; provisions for weather conditions; supervision from adults and group-based activities catered for the health and safety of these young participants as well as boosted their social, emotional and physical competencies.

The field notes, informal interviews and existing documents indicated that the Bush School Project did increase access of these children to knowledge and skills not offered anywhere else. It managed to do so first by garnering the support of the school and the community and integrating the project into the school program. It also complemented the school curriculum. That came about as the exposure to outdoor learning experiences allowed the children to see, feel, and touch and smell things that they have been learning about within four walls of a classroom. Moreover, the regular contact in nature gave them the chance to learn the interconnections between subjects taught in class and the multiple ways to use items found in the environment. The weekly exposure to the outdoors also provided some children with some new experiences that made them become more familiar with the vibrancy and unpredictability of the outdoors. In contrast to learning indoors, data gathered throughout the
academic term saw children learning through experimentation, more reflecting, problem solving and observing. The class teachers took on an observant, student and guidance role, whereas the facilitators modelled the new skills and dispositions.

Secondly, the Project provided these Year One pupils an opportunity to explore a natural bush land in their community. Such an exploration raised their awareness about facilities in their community and encouraged them to appreciate and contribute to its protection. In sum, it paved the way for the development of a deeper connection to their community.

The third and most significant way that the Project responded to learning inequalities is by providing cultural knowledge and skills to the group of Aboriginal pupils, hence strengthening their cultural identity. The Bush School achieved that by collaborating with Aboriginal families, and an Aboriginal Elder, an Aboriginal educational assistant and an Aboriginal University researcher and project officer. The Aboriginal cultural focus in the outdoor learning experiences was visible through the choice of an outdoor context that is traditionally owned by the Aboriginal people; the use of culturally appropriate tools, and a range of activities, which depicted the traditional Aboriginal way of life. It is anticipated that such knowledge and skills will reinforce the children’s connection to and desire to protect their ‘country’ and their culture, including language. Taking into account that there exists a wide difference between the educational performances of the Aboriginal and that of their non-Aboriginal peers, learning in the outdoors with Bush School is expected to foster an interest in school and learning that with time, could lead to other social, health and economic advantages that could negate the consequences of past government policies.

The study acknowledges that given more time and space, more data would have been gathered that would have rendered an in-depth exploration of the potentials of the Australian outdoor learning experiences. In addition, as noted in the previous chapter, the Bush School Project was in two phases; during the first phase the outdoor learning catered only for the Aboriginal pupils and in the second phase, the non–Aboriginal children joined in. By the time the ethics approval was granted, the first phase was completed, therefore, primary data was collated only during the second phase.
5.2 Recommendations

Further work might be done in the future to include focus group discussions with parents and teachers. Such discussions would allow teachers to share their stories of the impact of outdoor learning experiences on learning indoors. Moreover, it could provide another perspective of how learning in the outdoors can enhance relationships in the family and in the community. Alternatively, a longitudinal study would yield remarkable pre and post data that could prove to be useful in determining impacts of outdoor learning experiences on learning and development, potentially over a longer period during the early years.

Also, this study attempted to advocate for the involvement of children as research participants rather than research subjects, thus allowing their voices to be heard. It would be appealing if future outdoor learning research employs a Mosaic approach that will permit children to express their outdoor learning experiences in a variety of ways.

The study asserts that the Project has high transferability. This is so because the ideas for the Bush School originated from the Forest School in the UK. It was modified to fit the Australian context with a particular focus on Aboriginal culture, thanks to close collaboration with the local community, school and families. Mindful of the various benefits that contact with nature brings to the holistic development of children, this study recommends that countries across the globe consider how such an initiative can be developed to suit their distinct cultural, social and political contexts.

As stated in the introductory chapter, I am a citizen of the Seychelles, a small island state that has early childhood development as one of its main national priorities. Such an initiative is applicable and relevant for Seychelles for several reasons. First, apart from focusing on ECD, Seychelles also aspires to reduce the trend of anti-social and other risky behaviour that is eroding the social, emotional, and economic abilities and health of its young generation. Second, Seychelles is renowned for and takes pride in conserving its environment. Added to that, there are existing environmentally related programs of governmental departments (such as the Department of Education and that of Land Authority and Marine Parks) and NGOs (e.g. The Wildlife, Nature Seychelles, Sustainability for Seychelles) that are working with schools and communities to increase awareness of environmental protection and conservation. There is also a growing interest in programs run by the Cultural and Community Development Department that seek to bridge intergenerational gaps, promote
community cohesion and increase awareness of and appreciation for local culture (e.g. Heritage Foundation, District social committees).

This study proposes that a situational analysis in regards to access to and the relative benefits of outdoor learning experiences is conducted in the Seychelles. Such an analysis can be conducted in collaboration with the aforementioned governmental departments and NGOs working with children and youth groups like the Scouts, Neighbourhood Recreational Activities (NRA), and District Youth Committees.

The outcomes of such analysis can guide the development of relevant early childhood development, community–based and educational policies and programs that will encourage teachers, and families to provide children with opportunities to learn in, about and for the outdoors. In addition, this work advocates for an integrated ECD approach. It encourages government, NGOs, communities and families to review existing projects and programs or develop new ones that promote holistic development of the child.
Promoting equitable and alternative early learning
Opportunities through Outdoor learning

References


Promoting equitable and alternative early learning
Opportunities through Outdoor learning


Secretariat of National Aboriginal and Islander Child Care (SNAICC). November 2013. Policy Priorities for Aboriginal and Torres Strait Children. Australia


**Article 2 (Non-discrimination):** The Convention applies to all children, whatever their race, religion or abilities; whatever they think or say, whatever type of family they come from. It doesn’t matter where children live, what language they speak, what their parents do, whether they are boys or girls, what their culture is, whether they have a disability or whether they are rich or poor. No child should be treated unfairly on any basis.

**Article 3 (Best interests of the child):** The best interests of children must be the primary concern in making decisions that may affect them. All adults should do what is best for children. When adults make decisions, they should think about how their decisions will affect children. This particularly applies to budget, policy and law makers.

**Article 4 (Protection of rights):** Governments have a responsibility to take all available measures to make sure children’s rights are respected, protected and fulfilled. When countries ratify the Convention, they agree to review their laws relating to children. This involves assessing their social services, legal, health and educational systems, as well as levels of funding for these services. Governments are then obliged to take all necessary steps to ensure that the minimum standards set by the Convention in these areas are being met. They must help families protect children’s rights and create an environment where they can grow and reach their potential. In some instances, this may involve changing existing laws or creating new ones. Such legislative changes are not imposed, but come about through the same process by which any law is created or reformed within a country. Article 41 of the Convention points out the when a country already has higher legal standards than those seen in the Convention, the higher standards always prevail.

**Article 6:** Children have the right to live a full life. Governments should ensure that children survive and develop healthily.

**Article 12 (Respect for the views of the child):** When adults are making decisions that affect children, children have the right to say what they think should happen and have their opinions taken into account. This does not mean that children can now tell their parents what to do. This Convention encourages adults to listen to the opinions of children and involve them in decision-making -- not give children authority over adults. Article 12 does not interfere with parents' right and responsibility to express their views on matters affecting their children. Moreover, the Convention recognizes that the level of a child’s participation in decisions must be appropriate to the child's level of maturity. Children's ability to form and express their opinions develops with age and most adults will naturally give the views of teenagers greater weight than those of a pre-schooler, whether in family, legal or administrative decisions.

**Article 13 (Freedom of expression):** Children have the right to get and share information, as long as the information is not damaging to them or others. In exercising the right to freedom of expression, children have the responsibility to also respect the rights, freedoms and reputations of others. The freedom of expression includes the right to share information in any way they choose, including by talking, drawing or writing.

**Article 15 (Freedom of association):** Children have the right to meet together and to join groups and organisations, as long as it does not stop other people from enjoying their rights.
In exercising their rights, children have the responsibility to respect the rights, freedoms and reputations of others.

**Article 17 (Access to information; mass media):** Children have the right to get information that is important to their health and well-being. Governments should encourage mass media – radio, television, newspapers and Internet content sources – to provide information that children can understand and to not promote materials that could harm children. Mass media should particularly be encouraged to supply information in languages that minority and Indigenous children can understand. Children should also have access to children’s books.

**Article 29 (Goals of education):** Children’s education should develop each child’s personality, talents and abilities to the fullest. It should encourage children to respect others, human rights and their own and other cultures. It should also help them learn to live peacefully, protect the environment and respect other people. Children have a particular responsibility to respect the rights their parents, and education should aim to develop respect for the values and culture of their parents. The Convention does not address such issues as school uniforms, dress codes, the singing of the national anthem or prayer in schools. It is up to governments and school officials in each country to determine whether, in the context of their society and existing laws, such matters infringe upon other rights protected by the Convention.

**Article 31 (Leisure, play and culture):** Children have the right to relax and play, and to join in a wide range of cultural, artistic and other recreational activities.

**Articles 43-54 (implementation measures):** These articles discuss how governments and international organizations like UNICEF should work to ensure children are protected in their rights

([www.UNICEF.org](http://www.UNICEF.org))
Appendix B: Education for All Goals

Six internationally agreed education goals aim to meet the learning needs of all children, youth and adults by 2015.

1. Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.
2. Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to, and complete, free and compulsory primary education of good quality.
3. Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes.
4. Achieving a 50 per cent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.
5. Eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls’ full and equal access to and achievement in basic education of good quality.
6. Improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

http://www.UNICEF.org
## Appendix C: Goals and Targets of the Millennium

<table>
<thead>
<tr>
<th>Goal 1</th>
<th>Eradicate extreme poverty and hunger</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target 1.</strong> Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day</td>
<td></td>
</tr>
<tr>
<td><strong>Target 2.</strong> Halve, between 1990 and 2015, the proportion of people who suffer from hunger</td>
<td></td>
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<table>
<thead>
<tr>
<th>Goal 2</th>
<th>Achieve universal primary education</th>
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<tbody>
<tr>
<td><strong>Target 3.</strong> Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling</td>
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<table>
<thead>
<tr>
<th>Goal 3</th>
<th>Promote gender equality and empower women</th>
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<tbody>
<tr>
<td><strong>Target 4.</strong> Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015</td>
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<thead>
<tr>
<th>Goal 4</th>
<th>Reduce child mortality</th>
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<tbody>
<tr>
<td><strong>Target 5.</strong> Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate</td>
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<tr>
<th>Goal 5</th>
<th>Improve maternal health</th>
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<tr>
<td><strong>Target 6.</strong> Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio</td>
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<tr>
<th>Goal 6</th>
<th>Combat HIV/AIDS, malaria, and other diseases</th>
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<tbody>
<tr>
<td><strong>Target 7.</strong> Have halted by 2015 and begun to reverse the spread of HIV/AIDS</td>
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<tr>
<td><strong>Target 8.</strong> Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases</td>
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<tr>
<th>Goal 7</th>
<th>Ensure environmental sustainability</th>
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<tr>
<td><strong>Target 9.</strong> Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources</td>
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<tr>
<td><strong>Target 10.</strong> Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation</td>
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<tr>
<td><strong>Target 11.</strong> Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers</td>
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<tr>
<th>Goal 8</th>
<th>Develop a global partnership for development</th>
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<tr>
<td><strong>Target 12.</strong> Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (includes a commitment to good governance, development, and poverty reduction (both nationally and internationally))</td>
<td></td>
</tr>
<tr>
<td><strong>Target 13.</strong> Address the special needs of the Least Developed Countries (includes tariff- and quota-free access for Least Developed Countries' exports, enhanced program of debt relief for heavily indebted poor countries [HIPC])</td>
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112
and cancellation of official bilateral debt, and more generous official development assistance for countries committed to poverty reduction)

**Target 14.** Address the special needs of landlocked developing countries and small island developing states (through the Program of Action for the Sustainable Development of Small Island Developing States and 22nd General Assembly provisions)

**Target 15.** Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term

Some of the indicators listed below are monitored separately for the least developed countries, Africa, landlocked developing countries, and small island developing states

**Target 16.** In cooperation with developing countries, develop and implement strategies for decent and productive work for youth

**Target 17.** In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries

**Target 18.** In cooperation with the private sector, make available the benefits of new technologies, especially information and communications technologies
Appendix D:  
Important Milestones and Achievement in Early Childhood Care and Education in Seychelles for the period 2011 – 2013

<table>
<thead>
<tr>
<th>Action</th>
<th>Narration</th>
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</table>
| **ECCE Framework Document**<br> Show ECCE Framework cover and content – close up on document and children of different ages (from pregnancy, birth ...to 7 years old)<br>-Background music and logo animated<br>-Info on this page can be in the form of a diagram | As a country, we believe in the invaluable worth of our young children as the future and wealth of the society we are building. We value their right to develop to their full potential. We trust in their education and care from their earliest years being nurtured by caring, competent and knowledgeable adults in safe and motivating environments.  
Our beliefs and values about our young children are enshrined in our country’s vision for them which states that we should give all of them a winning start in life.  
This is supported by strong political will and commitment from the highest level. |
<p>| In September 2010, the Vice President led a Seychellois delegation to the first ever UNESCO World Conference on Early Childhood Care and Education which took place in Moscow under the theme “Building the Wealth of Nations.”&lt;br&gt;As a guest of honour, he delivered both the opening and closing address, where he pledged his wholehearted support to the implementation of the Moscow Framework for Action and Cooperation “Harnessing the Wealth of Nations” which was adopted by all conference delegates.&lt;br&gt;This framework calls on governments to adopt a broad and holistic approach to Early Childhood Care and Education (ECCE) for all children aged 0 – 7+ years. It reiterates that ECCE is a right and an indispensable foundation for lifelong learning and inclusive development. |  |
| <strong>National Steering Committee for ECCE</strong>&lt;br&gt; As a follow up to the UNESCO World Conference, the Vice President started in earnest to concretise his pledge. In October 2010, a multisectoral National Steering Committee for Early Childhood Care and Education was set up, chaired by the Minister for Education, Employment and Human Resources with the Minister for Health as Vice Chair. |  |</p>
<table>
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<th>Action</th>
<th>Narration</th>
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<tr>
<td><strong>Vice President - Interview</strong></td>
<td>The aim of the Committee was to develop a National Framework for ECCE in line with recommendations of the Moscow Conference. This Committee carried out a situational analysis of ECCE service delivery in Seychelles, involved all stakeholders and partners and by February 2011, the first draft of the Seychelles Framework for Early Childhood Care and Education was ready to be validated.</td>
</tr>
<tr>
<td><strong>Policy Framework</strong></td>
<td>This document, entitled “Winning for Children: A Shared Commitment”, provides an innovative and comprehensive system for developing better integrated and coordinated early childhood services nationally. It sets out the underlying principles of ECCE in Seychelles and our vision for children. It outlines the national policy goals and strategies and calls for the development of a national plan of action for ECCE.</td>
</tr>
<tr>
<td><strong>Conference Logo</strong></td>
<td>In February 2011, the Seychelles hosted its first Early Childhood Care and Education Conference under the theme “Starting Strong: Winning for Children”. As guest of honour for this important event, the Seychelles invited, Dr. Mmantsetsa Marope, the Director for Division of Basic Education in UNESCO. In her keynote address, she stressed that it was important for governments to commit themselves to strong ECCE policies and strategies and praised the Seychelles for making such a decisive move in putting ECCE on the national agenda.</td>
</tr>
<tr>
<td><strong>Launching of Framework - 7th October 2011 at Les Mamelles Crèche – Plaisance Primary School (SBC Footage)</strong></td>
<td>At this conference, the Seychelles Framework for ECCE was presented and endorsed by major stakeholders and partners who would ensure its implementation. The policy document was later presented to Cabinet for approval. In October 2011, the Vice President launched the ECCE Framework in a ceremony surrounded by early childhood children in one of our crèches. In his launching address, he stressed on the critical need for binding agreements and shared responsibilities across sectors and departments to ensure the policy’s effective implementation. To set the example, he as Vice President and Minister for Finance and other Ministers from Education, Health, Social</td>
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### Development and Community Development and Sports signed a statement of commitment,pledging their full engagement to the implementation of the framework and to ensure that the rights of all young children are respected and their potential nurtured.

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<th>Action</th>
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<td>The next step was to start implementing the ECCE Policy. The implementation strategies call for the setting up of governance and administrative structures, the establishment of a communication strategy, the development of a plan of action for programmes and service delivery, funding and staff professional development as well as a plan for monitoring standards and for quality control based on research.</td>
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### Media Launch of ECCE Trust Fund – Feb 2011 at NCC (SBC Footage)

- Chairperson delivering address  
- Vice Chair presenting fund procedures  
- Presentation of donations

The National ECCE Trust Fund

The first mechanism to be established was a National Early Childhood Care and Education Trust Fund in February 2011.

The aim of such a body is to promote, support and mobilise funds for projects and programmes for early childhood development. Its board members are representatives of ECCE line Ministries, NGOs and private sector. The fund is allocated a yearly budget of SR1 million by the Government. Businesses and individuals from the private sector also make contributions.

### Interview

- Vice President on the history of ECCE in Seychelles since World Conference in Moscow 2010  
- Political commitment/will in spearheading and advancing ECCE agenda forward nationally  
- High level committee aim and progress to date (to take photograph – PSVP to coordinate)

The High Level ECCE Policy Committee

An integrated approach to ECCE provision calls for new governance and administrative structures.

A body was needed to administer and oversee the implementation of the ECCE framework and ensure adherence and commitment to the vision. Since the new approach called for shared responsibilities among various key ministries, in December 2011, a High Level ECCE Policy Committee was set up made up of ministers with portfolio for education, health, social services and community development and finance. The ambassador responsible for Women and Children is also a member.

The High Level Committee is chaired by the Vice President as he has the capacity to drive the strategy collaboratively across the various portfolios.

### Photograph

- Mr. Frichot, chairperson of Technical Community Development, chairing an

ECCE Sector-based Technical Teams

In order to start working on the plan that would put the priorities and strategies in the Framework into operation, sector based technical teams were appointed. The aim of the teams was to
**Promoting equitable and alternative early learning**

**Opportunities through Outdoor learning**

<table>
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<th>Action</th>
<th>Narration</th>
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<tr>
<td><strong>ECCE Meeting (will take this week)</strong></td>
<td>develop, implement and evaluate action plans in their allocated area of operation.</td>
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<th>Action</th>
<th>Narration</th>
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<tr>
<td><strong>Action</strong></td>
<td>The teams started work on their plans in December 2011 – an exercise that took them about a year. In the process, they consulted widely and involved a range of stakeholders and partners. That was in response to the call made by the Vice President when he launched the ECCE Framework. He urged all stakeholders to come together to build strong partnership to support our parents to ensure that our children develop and receive proper care and education in their early years.</td>
</tr>
</tbody>
</table>

| Photo | The Chief Executive Officer of the IECD was appointed as the Chairperson of the ECCE Coordinating Committee comprising the Chairpersons of all sector based technical teams, with the role to oversee, guide and coordinate the work of the Technical Teams in the planning and implementation of the sectoral action plans. |

| Photo | The need was felt for such a committee as the planning process evolved and the plans had to come together as a National Action Plan for ECCE. |

| Photo | The Chief Executive Officer of the IECD was appointed as the Chairperson of the ECCE Coordinating Committee comprising the Chairpersons of all sector based technical teams, with the role to oversee, guide and coordinate the work of the Technical Teams in the planning and implementation of the sectoral action plans. |

| Photo | The need was felt for such a committee as the planning process evolved and the plans had to come together as a National Action Plan for ECCE. |

| **SONA Speech – Feb 2012 (SBC Footage)** | Strong political commitment is needed for the success of our vision for young children being translated into action. The high level support was felt when our head of state stressed on the importance of laying a strong foundation for our children’s future. |

| **SONA Speech – Feb 2012 (SBC Footage)** | In his state of the Nation Address in February 2012, he stated that “a good education, especially in the first years of a child’s life is what will put our children on the right path. It is those formative years that are the key to success”. |

| **Interview with Mrs. Choppy** | Institute of Early Childhood Development |
| **Interview with Mrs. Choppy** | To further show this commitment towards the well being of our young children, the President, also in March of the same year, made an important announcement within the first phase of Government restructuring. He appointed a Chief Executive Officer, Mrs. Shirley Choppy, for the Early Childhood Centre, one of the governance structures for the implementation of the ECCE Framework. |

| **Interview with Mrs. Choppy** | After working on the functions of the Centre, it was later elevated to the status of Institute of Early Childhood Development (IECD). |

| **Interview with Mrs. Choppy** | |
## Action

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<th>Narration</th>
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<tr>
<td>The aim of the Institute is to provide leadership in Early Childhood Development and ensure, through collaboration, with other partners, the coordinated implementation of policies and programmes in order to improve the quality of ECCE provision in Seychelles. Approval was given by the Cabinet of Ministers for the establishment of the Institute in August 2012 and IECD started operating as an independent entity in January 2013.</td>
</tr>
</tbody>
</table>
| **SBC Footage – 22nd Feb 2013 – STC Conference Room**  
- Designated Minister delivering speech  
- Shot at the over 100 participants in the room  
- Check Mrs Choppy interview on that day (SBC footage) for additional information on the National Plan                                                                                                                                                                                                                                                                                       |
| **The National Action Plan 2013-2014**  
Work on the National Action Plan for ECCE 2013-2014 was completed in February 2013. A pre-validation session was held with selected key stakeholders from the lead ministries. This was followed by a Validation Workshop involving major stakeholders and partners across line ministries, private sector and civil society.  
The launching speech was delivered by the Designated Minister and Minister responsible for Social Affairs, Community Development and Sports. He highlighted the importance of high quality early childhood service provision and the involvement of all who have a stake in early childhood development.  
The plan is guided by the overall principles and values of the ECCE Policy and provides detailed action plans for selected strategies under each of the 9 priorities outlined therein.                                                                                      |
| **SBC Footage – Cabinet of Ministers in session – president with his ministers/any session**  
- Logo IECD as the body to coordinate implementation, monitoring and evaluation                                                                                                                                                                                                                                                                                                                                                     |
| The first draft of the validated action plan was presented to the High Level ECCE Policy Committee in March 2013 for their input.  
The final draft was presented to and approved by the Cabinet of Ministers in April 2013. The Institute of Early Childhood Development and the Coordinating Committee will ensure coordination in the implementation, monitoring and evaluation of the National Action Plan.                                                                                                                                                                                      |
| **-Interview with Dr Shamlaye – Chair Advisory Council**  
- Family Photo of the council members (Dr. Shamlaye will)                                                                                                                                                                                                                                                                                                                                                                                                                                |
| **ECCE Advisory Council**  
Another structure established as part of the implementation process for the ECCE Policy was the Early Childhood Care and Education Advisory Council comprising representatives of university academics, researchers, educators, children’s NGOs and ECCE service providers.                                                                                                                            |
Promoting equitable and alternative early learning  
Opportunities through Outdoor learning

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<tr>
<td>coordinate</td>
<td>It was established in May 2012 and is chaired by Dr. Conrad Sham Laye.</td>
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<th>Action</th>
<th>Narration</th>
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<tr>
<td>Photo</td>
<td>Its aim is to provide advice and guidance on broad social and environmental factors that influence early childhood development. As part of their responsibilities, the members of the Council scrutinized the National Action Plan and gave their comments and appreciation.</td>
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<table>
<thead>
<tr>
<th>Photo</th>
<th>International Workshop – Advancing the ECD Agenda in Africa</th>
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<tbody>
<tr>
<td>Seychelles Delegation at the Workshop</td>
<td>During the past 2 years, the Seychelles ECCE was visible on the international scene.</td>
</tr>
<tr>
<td>Photo and Article in NATION</td>
<td>In October 2012, the CEO of IECD and 3 ECCE Sector-based Technical Team Chairpersons participated in a workshop hosted by World Bank and UNICEF in Dar Es Salaam, Tanzania.</td>
</tr>
<tr>
<td></td>
<td>The workshop under the theme “Advancing the Early Childhood Agenda in Africa – From Policy Analysis to Implementation” provided technical assistance and support to key stakeholders to operationalise ECD policies at country level.</td>
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<tr>
<td></td>
<td>It came at an opportune time when we were busy at national level turning our ECCE policy into action. The Seychelles delegation presented a country report on the status of ECCE in Seychelles and formulated a Roadmap for our country.</td>
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<table>
<thead>
<tr>
<th>Interview with Dr. Leste (local Consultant SABER-ECD Project)</th>
<th>SABER-ECD Project</th>
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<tbody>
<tr>
<td>-Show/close up on draft report (Dr. Leste will bring report when he comes for the interview)</td>
<td>From March 2012 to March 2013, the Seychelles participated in an international project, assisted by World Bank, called ‘The Systems Approach for Better Education Results in Early Childhood Development’.</td>
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<tr>
<td></td>
<td>At country level, our national consultant, Dr. Andre Leste, collected information on ECD programmes and policies that affect young children in the context of:</td>
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<tr>
<td></td>
<td>- <em>early learning</em></td>
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<td></td>
<td>- <em>health care</em></td>
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<td></td>
<td>- <em>nutrition</em></td>
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<td></td>
<td>- <em>social and child protection</em></td>
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<td></td>
<td>A draft country report has been produced on Seychelles ECD position comparing us with regional and international norms. During the conference participants will have the opportunity to learn more about this.</td>
</tr>
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</table>
**Promoting equitable and alternative early learning**

**Opportunities through Outdoor learning**

**Interview with Mr. Benstrong (take from recent ALAP Video)**

ALAP Logo (from Video as well)

Interview with Mrs. Choppy regarding Commonwealth award

Show Logo of IECD and ALAP

Photo of award recipients with Minister and PS Education/with ALAP Committee

SBC Zarden Zanfan - programme, which emanates from ALAP Project, as one of the initiatives

<table>
<thead>
<tr>
<th><strong>(ALAP) Seychelles Mother Tongue Reading Programme</strong></th>
<th><strong>Work in Progress and the Way Forward</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Our own Mother Tongue Reading Project for Early Childhood that has been developed since 2005 and is being implemented from Preprimary Year 2 to Primary Year 4 in all state schools in 2013, received international recognition last year.</td>
<td>At national level we are geared into action and a lot is and will be happening. We have achieved a lot but there is still much to be done. The Institute of Early Childhood Development will soon open its doors in newly established quarters and will hold its media launch in mid year.</td>
</tr>
<tr>
<td>The programme was entered for the Commonwealth Education Good Practice Award 2012. It received an award as one of the finalists during the Conference of Commonwealth Education Ministers held in Mauritius.</td>
<td>The Institute is currently drafting its strategic plan and its Act.</td>
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<td></td>
<td>Sectors will start implementing the National Action Plan.</td>
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<td></td>
<td>IECD will be working on standards for Early Childhood Development with the assistance of UNESCO and the SEED Institute in Singapore.</td>
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<td></td>
<td>A paper on the status of Child Minding Services in Seychelles will soon be presented to the Cabinet of Ministers for policy orientation.</td>
</tr>
</tbody>
</table>

**ECCE and IECD Logo**

Guided by our common vision and with the collaboration of all stakeholders and partners across all sectors, we commit ourselves to continue striving to make all our young children winners by giving them a strong start in life.
## Appendix E

### Figure 4.1: Timeline of key events related to Indigenous education policy 1989-2020

<table>
<thead>
<tr>
<th>Indigenous affairs</th>
<th>School education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1989</strong></td>
<td>National Aboriginal and Torres Strait Islander Education Policy established 21 goals.</td>
</tr>
<tr>
<td><strong>1992</strong></td>
<td>National Strategy for the Education of Aboriginal and Torres Strait Islander Peoples 1996-2002 published by MCEETYA.</td>
</tr>
<tr>
<td><strong>1995</strong></td>
<td>Indigenous Education Strategic Initiatives Programme (IESIP) funded by Commonwealth to demonstrate improvements can be achieved in short time frame.</td>
</tr>
<tr>
<td><strong>1999</strong></td>
<td>National Report on Schooling in Australia reported achievement against national benchmarks for the first time.</td>
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<tr>
<td><strong>2000</strong></td>
<td>Indigenous Education (Targeted Assistance) Act introduced programs such as Indigenous Tutor Assistance Scheme and ASSPA.</td>
</tr>
<tr>
<td><strong>2002</strong></td>
<td>COAG pilots employed 'whole of government' service delivery principles in conjunction with community engagement.</td>
</tr>
<tr>
<td><strong>2003</strong></td>
<td>First report of the Productivity Commission, Overcoming Indigenous disadvantage, established key indicators of Indigenous disadvantage.</td>
</tr>
<tr>
<td><strong>2004</strong></td>
<td>Responsibilities for Indigenous service delivery transferred from ATSIC and ATSIS to mainstream government departments.</td>
</tr>
<tr>
<td><strong>2005</strong></td>
<td>FaCSIA given federal Indigenous policy coordination role. Indigenous Coordination Centres created to introduce 'whole of government' approach.</td>
</tr>
<tr>
<td><strong>2006</strong></td>
<td>Australian Directions in Indigenous Education 2005-2008 endorsed by MCEETYA.</td>
</tr>
</tbody>
</table>
Promoting equitable and alternative early learning
Opportunities through Outdoor learning

Northern Territory Emergency Response (NTER) introduced

National Indigenous Reform Agreement (NIRRA) signed.

Longitudinal Study of Indigenous Children began by FAHCSIA.


2008
National Education Agreement signed by all Australian governments (COAG, 2008).
ACARA created and made responsible for national testing and reporting of school achievement data.

2009
Funding and support provided to nominated schools through the education National Partnerships with the performance of Indigenous students one of the targets:
Parental and Community Engagement (PaCE) program introduced (DEEWR, 2010).

Aboriginal and Torres Strait Islander Education Action Plan 2010-2014 approved by COAG. Focus schools nominated.
Final year for Literacy and Numeracy National Partnership.

2011

Final year of Closing the Gap in the Northern Territory National Partnership agreement.

Longitudinal Study of Indigenous Children to report.


2012
Final year of Parental and Community Engagement program (PaCE).

2013
All Indigenous four-year-olds in remote communities to have access to early childhood education.
Final year for first tranche of Low-SES National Partnership schools.

Final year of Remote Service Delivery National Partnership.

2014
Final year of final tranche of Low-SES National Partnership schools.

Final year of Remote Indigenous Housing National Partnership.

2016
The gap in literacy and numeracy to be halved.

2018
The gap in Year 12 attainment or equivalent to be halved.

2020
## Appendix F

### Proportion of children developmentally vulnerable (%)

<table>
<thead>
<tr>
<th>The Community</th>
<th>No. of Children surveyed</th>
<th>Physical health &amp; well-being</th>
<th>Social Competence</th>
<th>Emotional Maturity</th>
<th>Language &amp; cognitive skills (school-based)</th>
<th>Communication skills &amp; general knowledge</th>
<th>Vulnerable on 1+ AEDI domains</th>
<th>Vulnerable on 2 + AEDI domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>289,973</td>
<td>9.3</td>
<td>9.3</td>
<td>7.6</td>
<td>6.8</td>
<td>9</td>
<td>22</td>
<td>10.8</td>
</tr>
<tr>
<td>WA</td>
<td>32,158</td>
<td>9.8</td>
<td>8.4</td>
<td>8.3</td>
<td>8.6</td>
<td>9.1</td>
<td>23</td>
<td>11.2</td>
</tr>
<tr>
<td>LGA</td>
<td>1,822</td>
<td>10.5</td>
<td>9.9</td>
<td>8.7</td>
<td>8.4</td>
<td>13.7</td>
<td>27</td>
<td>12.8</td>
</tr>
<tr>
<td><strong>Local Community</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suburb 1</td>
<td>94</td>
<td>12.9</td>
<td>6.5</td>
<td>10.8</td>
<td>13</td>
<td>16.1</td>
<td>30.1</td>
<td>15.2</td>
</tr>
<tr>
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<td>6.6</td>
<td>5.8</td>
<td>4.1</td>
<td>9</td>
<td>18.3</td>
<td>7</td>
</tr>
<tr>
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<td>11.1</td>
<td>8.5</td>
<td>10</td>
<td>16.3</td>
<td>31.9</td>
<td>16.3</td>
</tr>
<tr>
<td>Suburb 4</td>
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<td>8.3</td>
<td>9</td>
<td>8.3</td>
<td>5.5</td>
<td>8.3</td>
<td>22.8</td>
<td>10.4</td>
</tr>
<tr>
<td>Suburb 5</td>
<td>71</td>
<td>16.2</td>
<td>13.2</td>
<td>10.3</td>
<td>10.3</td>
<td>25</td>
<td>32.4</td>
<td>17.6</td>
</tr>
<tr>
<td><strong>Suburb 6</strong></td>
<td><strong>98</strong></td>
<td><strong>18.9</strong></td>
<td><strong>11.6</strong></td>
<td><strong>16.8</strong></td>
<td><strong>13.7</strong></td>
<td><strong>25.3</strong></td>
<td><strong>46.3</strong></td>
<td><strong>27.4</strong></td>
</tr>
<tr>
<td>Suburb 7</td>
<td>154</td>
<td>10.3</td>
<td>16.4</td>
<td>10.3</td>
<td>12.3</td>
<td>21.2</td>
<td>39</td>
<td>16.4</td>
</tr>
<tr>
<td>Suburb 8</td>
<td>137</td>
<td>6.6</td>
<td>9.6</td>
<td>8.1</td>
<td>11</td>
<td>8.8</td>
<td>25</td>
<td>8.8</td>
</tr>
<tr>
<td>Suburb 9</td>
<td>326</td>
<td>8.3</td>
<td>11.2</td>
<td>9.3</td>
<td>8.3</td>
<td>13.1</td>
<td>25.6</td>
<td>13.8</td>
</tr>
</tbody>
</table>

**Key:** AEDI - Australian Early Development Index, WA - Western Australia, LGA - Local Government Area
Appendix G: Focus and possible outcomes of outdoor education

<table>
<thead>
<tr>
<th>Possible focus of outdoor learning</th>
<th>Intended outcomes of outdoor experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>learning about nature, for example, in an ecological or horticultural study</td>
<td>• knowledge and understanding of, for example, geographical processes, ecology or food growing techniques</td>
</tr>
<tr>
<td>learning about society, for example, in community-based gardening initiatives or conservation projects</td>
<td>• attitudes and feelings towards, for example, intensive stock rearing, access to the countryside or fair trade</td>
</tr>
<tr>
<td>learning about nature-society interactions, for example, in visits to outdoor nature centres or areas of outstanding natural beauty</td>
<td>values and beliefs about, for example, the value of the environment, one’s relationship to it, or biodiversity loss</td>
</tr>
<tr>
<td>learning about oneself, for example, in personal fulfilment through challenging adventure education or working with animals</td>
<td>personal development, for example, self-confidence, knowing fact from value, enhancing personal effectiveness</td>
</tr>
<tr>
<td>learning about working with others, for example, in small-group fieldwork or residential experience</td>
<td>activities and behaviours, for example, pro-environment actions, coping strategies or making a personal commitment</td>
</tr>
<tr>
<td>learning new skills, for example, through fieldwork or practical activities in school grounds</td>
<td>skills, for example, identification of species with a key or map-reading</td>
</tr>
<tr>
<td>• learning about practical conservation, for example, through focused activities in the countryside or on city farms</td>
<td>skills, for example, in clearing undergrowth or removing invasive alien species</td>
</tr>
<tr>
<td>• learning about influencing society, for example, by campaigning on controversial issues or working with disadvantaged groups</td>
<td>social development, for example, working with others, promoting democratic social change or reducing racism</td>
</tr>
<tr>
<td>learning research skills, for example, through action research on field or school grounds work</td>
<td>enhanced capacity to carry out systematic enquiry on one’s own or other’s work with children</td>
</tr>
</tbody>
</table>
Appendix H

Views of children

**Belonging:** Knowing where and with whom you belong (family, cultural group, neighbourhood and wider community)

**Being:** Childhood is a time to be, to seek and make meaning of the world

**Becoming:** Reflects the process of rapid and significant changes that occur as children learn, grow and develop their identities, knowledge, understandings, capacities, skills and relationships

(EYLF, 2009, p. 7)
Principles

1. Secure, respectful and reciprocal relationship
2. Partnership
3. High expectation and equity
4. Respect for diversity
5. Ongoing learning and reflective practices

(EYLF, 2009, 14 – 18)

Practice

1. Holistic approaches
2. Responsiveness to children
3. Learning through play
4. Intentional teaching
5. Learning environment
6. Continuity of learning and transitions
7. Cultural competence
8. Assessment for learning

(EYLF, 2009, p. 12 – 13)

Learning Outcomes

1. Children have a strong sense of identity
2. Children are connected with and contribute to their world
3. Children have a strong sense of wellbeing
4. Children are confident and involved learners
5. Children are effective communicators

(EYLF, 2009, p. 8)
<table>
<thead>
<tr>
<th>Appendix I: Research Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aim</strong></td>
</tr>
<tr>
<td>1. Acquired verbal permission from the Bush School Project Co-ordinators to collect data from the Project</td>
</tr>
<tr>
<td>2. <strong>Apply for a Working with Children Check Card</strong> (WWC) from the Department of Child Protection, Western Australia</td>
</tr>
<tr>
<td>3. <strong>Received WWC Card</strong></td>
</tr>
<tr>
<td>4. <strong>Familiarisation</strong> with the outdoor learning contexts &amp; Build rapport with the children and adults involved in the Project</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>5. <strong>Observations:</strong> The outdoor learning activities, interactions between children, interactions between children and adults, description of outdoor contexts</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>6. <strong>Informal Interviews</strong></td>
</tr>
<tr>
<td>Bush school Co-ordinators</td>
</tr>
<tr>
<td>Aboriginal Elder</td>
</tr>
<tr>
<td>7. <strong>Collection of Secondary data</strong></td>
</tr>
</tbody>
</table>
Appendix J: Approaches of the Bush School Project: Taking care of the whole child

Health and safety

For instance, the children were provided with bottles of water, oranges and apples during recess and throughout the day to ensure that they were all well-hydrated and able to cope with the demands of the activities.

To ensure that safety of the children on the way to and from the site, manage their overall behaviour and guide their learning, every week the children were accompanied to the site by an Aboriginal Education Assistant, and a Year One Classroom Teacher (Lee-Hammond & Jackson –Barrett, 2013). During the data collection period, two parents also attended the Bush School sessions, and one did so twice.

Another safety precaution used in the project is to ensure that as children explore the outdoors as part of any activity they are accompanied by one adult.

The rainy days formed numerous muddy puddles on the site and as can be seen in the photograph, when it rains, the children were provided with raincoats and recess and some of the activities were carried out under the veranda of the Café adjacent to the Eco Education Centre or under one of the sheds in the park.
Socio – emotional development

The observations indicated that the facilitators and Uncle were cognisant that being and learning in the outdoors was something that was foreign to many of the children. Thus, as they were introduced to the new skills, time was dedicated to model and explains what were expected of them (for example, throwing boomerangs, spears and making fishing traps and other artefacts). The attempts of the children did not go unnoticed, for as each child had their throw of boomerangs, for instance, the entire class including the adults cheered and applauded and facilitators said “well done”, “that’s a great throw”, “wow”. In another occasions, as a boy attempts to pronounce the name of a river that they have learnt previously, one of the Bush School facilitator said “good try”.

Additionally, many of the Bush School activities such as collecting items to build nests, looking into the trees with binocularars, making a drawing of a river snake on the ground, to name a few, were carried out in groups, therefore requiring the children to communicate, negotiate and deal with challenges.
Creating a river snake as a group

Building birds’ nests in pairs

**Hands on experience**

The last and most apparent approach of learning in the outdoor in Bush School was the opportunities the children had to see, touch, smell, experiment and create things. These promoted their fine and gross motor development

**Culturally relevant**

Learning in the outdoor in Bush School is done using books about nature but most of the knowledge was delivered through culturally relevant for as Uncle explained in the informal
interview, he passed on to the children things he has learnt himself “growing up in the bush up to the age of 13”. There were stories and songs and even in the Aboriginal language. Uncle modelled, explained and guided the pupils as they learn how to use many of the traditional tools that he brought along every week. The cultural element was equally evident as upon provision of the names of the oldest person in the families of the Indigenous students or their surname, Uncle went to trace which part of the Noongar country they came from and that permitted him to relate to them about their specific ancestors, history, totem and tribal traditions and language, for there is about 12 different language in the Noongar nation.

**Contextualisation**

Even if Uncle was passing on knowledge and skills he has learnt as a child, he however recognises that contexts, plants and animals where he grew up in the ‘country’ are different from that of the City (Perth), where the children live and frequent. To ensure that he transmits the correct information to the children, he dedicated time to do research in local libraries, visit local Council or gather plants in local bushland and beaches. He was able to gather plants, for he has a license, obtained from the Department of Environment and Conservation, which allows him to do so for educational purposes.